RETHINKING THE
UNITARY-FEDERATION CLASSIFICATION:
TOWARDS A TYPOLOGY APPROACH AND PERFORMANCE
ANALYSIS

ZURIANA BINTI ZAHRIN

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ZURIANA BINTI ZAHRIN (95751)

A thesis submitted to the Ghazali Shafie Graduate School of Government in fulfilment of the requirements for the Doctor of Philosophy Universiti Utara Malaysia

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(College of Law, Government and International Studies)
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Nama Pelajar   : **ZURIANA ZAHRIN (95751)**
(Name of Student)

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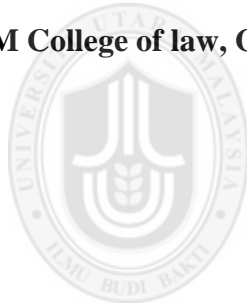
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ABSTRACT

In the 20th century, regionalization and decentralisation have brought a new paradigm for the division of power, enhancing subnational capability and power distribution across boundaries. These two global trends, which indirectly promoted *"federalization processes"* in unitary countries, made unitary and federated territorial management and power-sharing hard to discern. This drives the Unitary vs. Federation System dichotomy to become incongruous, and the existing classification is no longer relevant. In order to rethink the classification, this study aims to construct a typology of government systems. This first objective was accomplished during Phase I, which followed Kluge's qualitative model, *"Empirically Grounded Type of Construction"* which involves four steps. This study, however, employed a mixed method using nested concurrent strategies. Only the first step applied qualitative library research, the remaining step employed quantitative methods. The second step involves hybrid clustering analysis (hierarchical, two-step, and k-means analyses served as the primary analyses), the third step involves correlation test, and the fourth step involves ANOVA, Kruskal-Wallis, descriptive, and box plot analyses. This Phase I was successful in constructing a typology in which five clusters were found in *n*=70 countries and arranged in a continuum, starting from the left: Centralised Unitary, Decentralised Unitary, Regionalized Unitary, Centralised Federation, and Decentralised Federation at the right end. The second objective was to examine group that are likely to promote better performance in macroeconomics, fiscal and governance. This Phase II was done in quantitative inter-cluster analysis, and it was discovered that Regionalized Unitary was the best cluster, followed by Decentralised Federation, Centralised Federation, Decentralised Unitary, and Centralised Unitary. This study determined that the distribution of authority to subordinate units is crucial for optimal government functioning. This governmental system classification is a fundamental theoretical contribution of Unitary vs. Federation Systems that translates into a new understanding of governmental systems. This study also contributes to the clustering method that will be required for future comparable studies. Finally, this study provides fundamental reference or guidelines for countries that are pursuing the federalism prospect and looking for the best governance, economic, and fiscal arrangements.

Keywords: Unitary, Federation, Typology, Performance.

ABSTRAK

Pada abad ke-20, regionalisasi dan desentralisasi telah membawa paradigma baharu bagi pembahagian kuasa, meningkatkan keupayaan subnasional dan pengagihan kuasa merentas sempadan. Kedua-dua trend global ini, yang secara tidak langsung menggalakkan *"proses federalisasi"* di negara kesatuan, menjadikan pengurusan wilayah dan perkongsian kuasa antara kesatuan dan persekutuan sukar untuk dibezakan. Ini mendorong dikotomi Sistem Unitari vs. Persekutuan menjadi tidak selaras dan klasifikasi sedia ada tidak lagi relevan. Untuk memikirkan semula klasifikasi, kajian ini bertujuan untuk membina tipologi sistem kerajaan. Objektif pertama ini telah dicapai semasa Fasa I, dengan mengikut model kualitatif Kluge tentang "Pembinaan Jenis Berasaskan Empirikal" yang mengandungi empat langkah. Kajian ini, bagaimanapun, menggunakan kaedah campuran melalui *nested concurrent strategies*. Hanya langkah pertama menggunakan penyelidikan kualitatif membabitkan kajian perpustakaan, langkah selebihnya menggunakan kaedah kuantitatif. Langkah kedua melibatkan analisis pengelompokan hibrid (analisis hierarki, *two-step* dan *k-means* yang berfungsi sebagai analisis utama), langkah ketiga ujian korelasi dan langkah keempat membabitkan ujian ANOVA, *Kruskal-Wallis*, deskriptif, dan analisis *box plot*. Fasa I ini berjaya membina tipologi di mana lima kluster ditemui di n=70 negara, dan disusun dalam satu kontinum, bermula dari kiri: Kesatuan Berpusat, Kesatuan Terdesentralisasi, Kesatuan Serantau, Persekutuan Berpusat dan Persekutuan Terdesentralisasi di hujung kanan. Objektif kedua pula adalah untuk mengkaji kumpulan terbaik dalam prestasi makroekonomi, fiskal dan tadbir urus. Fasa II ini dilakukan dalam analisis kuantitatif antara-kluster, dan didapati bahawa Kesatuan Serantau adalah kelompok terbaik, diikuti oleh Persekutuan Terdesentralisasi, Persekutuan Berpusat, Kesatuan Terdesentralisasi dan Kesatuan Terpusat. Kajian ini menentukan bahawa pengagihan kuasa kepada unit bawahan adalah penting untuk fungsi kerajaan yang optimum. Klasifikasi sistem kerajaan ini telah menyumbang kepada teori asas Sistem Kesatuan vs. Persekutuan yang diterjemahkan kepada pemahaman baharu tentang sistem kerajaan. Kajian ini juga menyumbang kepada kaedah pengelompokan yang akan diperlukan untuk kajian seumpamanya di masa hadapan. Akhir sekali, kajian ini menyediakan rujukan atau garis panduan asas untuk negara yang mengejar prospek federalisme dan mencari pengaturan tadbir urus, ekonomi dan fiskal yang terbaik.

Kata Kunci: Kesatuan, Persekutuan, Tipologi, Prestasi.

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LIST OF ABBREVIATIONS

ANOVA   Analysis of Variance

ASEAN   Association of South East Asian Nations

BTI   Transformation Index of the Bertelsmann

CIA   Central Intelligence Agency

CT   Constructed Type

CG   Central Government

EU   European Union

EIU   Economist Intelligence Unit;

GDP   Gross Domestic Product

GFS   Government Finance Statistics

GNI   Gross National Income

GST   Goods and Services Tax

HCA   Hierarchical cluster analysis

IMF   International Monetary Finance

LG   Local Government

NAFTA   North American Free Trade Association

NCA   Non-hierarchical Custer Analysis

QUAL   Qualitative

QUAN   Quantitative

RAI   Regional Authority Index

RO   Research Objective

RQ   Research Question

SG   State Government

UNDP   The United Nations Development Programme

UAE   United Arab Emirates

VAT   Value Added Tax

WGI   The Worldwide Governance Indicators

CHAPTER ONE

INTRODUCTION

1.1   Background of the Study

In the modern nation-state, the government necessarily occupies territory and discerns the best way to govern. Whether to govern an undivided form through a single central authority or to disintegrate it and govern through central and local authorities, and whether the area of undivided rule should be expanded or contracted at any time (Finer, 1970). Correspondingly, the quintessentially modern nation-state finally formed a territorial distribution of powers into two systems, namely the unitary and the federation.

In the most common sense, unitary refers to undivided sovereignty governed by a powerful central government. The central government is legally omnipotent over the whole territory, whereby no spheres of government action are assigned to smaller units of government by the constitution. Nonetheless, the authority may, and usually does, delegate much responsibility to the constituent units through an ordinary statute enacted by the national legislature, and it may be withdrawn as promptly as it was granted. As a solitary government, it has simple management of an economy and uniformity in policies, laws, enforcement, and administration of laws. Therefore, duplication of services and conflicts between the central government and local entities do not arise. Given that, the

central government can freely implement any kind of policy, hence the system is best suited for small country with homogeneous citizenship characteristics. France was the first country to adopt a unitary system, which became a prominent model in the nineteenth century, followed by Greece (1821) and Italy (1860). Indeed, the influence was overpowering, as the vast majority of the world's nations were affected (165 out of 193 United Nation members).

Conversely, the federation system is formed by two or more levels of government and is ideal for large-sized country. The United States (the first federation and followed by less than thirty countries) was formed to make government easier to run in a tiered model (Verney, 1995). The far-flung provinces (or states, landers, cantons, and regions) have been given lawful authority set forth in a written constitution to reduce their reliance upon a central government. The federation system also caters to large social cleavages of any kind, whether they are based on ethnicity, language, Religious, culture, or history. Under these circumstances, the central government is likely to fail to notice these differences if the government assumes policies that fit the majority. Moreover, the heterogeneity, in all probability, has severe problems with unity. Thus, the federation systems have the certainty of protecting each individual preference through legitimate authority to set their own laws, officials, and agencies.

Both governmental systems are crucial to determining governance efficiency and effectiveness. First, from the perspective of resource allocation, efficiency and effectiveness can be enhanced by delegating spending authority to the government that is closest to the people who will benefit from the spending. In a federation, the arrangement

permits the central government to provides nationally beneficial public goods, such as defence, infrastructure, and international affairs. While the local level of government would be responsible for providing residents with public goods and services, dam projects such as water, flood control, recreation, and road lighting will be funded by the federal government. (Oates, 2006, 2008; Ter-Minassian, 1997). In other words, the decision to provide public goods by the jurisdictions at the primary level of government is more effective and efficient because the lowest tier of government is closer to the community and knows its needs and priorities. This case is best explained by the public-choice theory, according to which governments make decisions according to public preferences and knowledge. As opposed to the unitary countries, the allocation of resources is efficient in terms of equalization, as the central level provides a standard service, a kind of "one size fits all" to their homogenous citizens. In this case, France and Sweden are the best examples. Basically, they have similar systems of territorial governance through symmetry policies and equalisation transfer programmes for their administrative entities.

Next, the system of government also plays an important role in increasing the efficiency and effectiveness of public good provision and service delivery. Within a state, each user is allowed to move independently from one place to another to maximise utility by demanding the type and level of output of goods or services according to their preferences. Typically, the user moves and lives in a similar value society, as they are willing to share the local tax burdens together. In the public sector, user utility will reach equilibrium when the marginal benefit of public goods is equal to the marginal cost of public goods. This process will eventually create a balance in accordance with relevant community groups based on income. The wealthier residents in an area, the more taxes can be collected (as a

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price) and therefore more goods and services can be provided that meet the needs and tastes of the residents. This corresponds with the "Tiebout effect" on the competition among countries to optimise their provision policies. Competitive pressures will encourage the constituent units to optimise their revenue (by tax as the price) and to continuously provide the best public goods and services for the citizens (Tiebout, 1956). Today, the governmental system discloses significant positive results in governance performance. Table 1.1 shows the effectiveness and efficiency of government and overall performance indices of the oldest unitary (France) and federation (the United States) after having been through more than a century of system experience, respectively. The best indices were also recorded in Japan and Switzerland as the most successful in their own systems.

Table 1.1
The Ranking of Government Effectiveness and Efficiency and Overall Performance in Selected Countries

	Federation		Unitary	
	USA	Switzerland	France	Japan
Government effectiveness & efficiency	*Ranking*			
· The Global Competitiveness Index 2017-2018, World Economic Forum, (137 countries)	2	1	22	9
· The world competitiveness Ranking 2021 Institute for Management Development (59 countries)	10	1	29	31
· The Worldwide Governance Indicators, 2020	19	2	23	14
Overall performance				
· Human Development Index 2020 Rankings by UNDP (186 countries)	17	2	26	19

Note. Adapted from World Economic Forum (2019), Institute for Management Development (2021); and Human Development Report Office (2020). Kaufmann, Kraay & Mastruzzi (2021).

Undoubtedly, the indices clearly reveal that the federation system has dominated the overall ranking. Indeed, some scholars (Burgess, 1993; Elazar, 1997; Watts, 2008) argue that the federation consistently outperforms the unitary and became a remarkably popular form of government at the turn of the century. Having such good perceptions, it is not a surprise that there are strong global trends moving towards federation (Watts, 2008). In fact, there were about 11 followers during the period from 1970 to 2010 (see Figure 1.1).

Figure 1.1
Moving Towards a Federation State During the Period
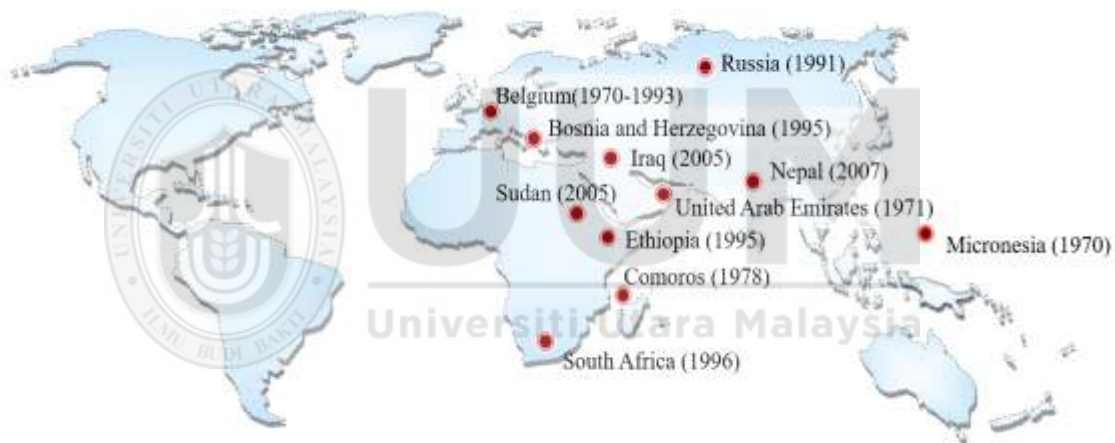
Note. Illustrated from information in Forum of Federations (2018).

For some unitary countries who wished to remain in the existing system, they chose the other way. The line of regionalization (Baldi, 1999; Braun, 2000; Schrijver, 2006; Swenden, 2006) and decentralisation (also known as devolution) (Baldi, 1999; Biela & Hennl, 2010; Swenden, 2006) became more interconnected. Turning to these new ways of "federalization", subnational authorities of all kinds were developed, and the hierarchy had flattened into federation arrangements, even though a real process of federation was

far from developing. Clearly, the enlargement of federalization processes within a unitary was greeted with scepticism.

Regionalization became popular in the 1970s, especially in Western Europe, as a process of strengthening subnational territorial governance. In principle, the idea mostly advances in the larger federation countries, yet the United Kingdom, France, Italy, and Spain, for instance, have played an imperative role through regional government (Braun, 2000; Schrijver, 2006; Swenden, 2006). Initially, regionalization was described as an attractive way to resolve ethno-territorial conflicts and demands by regionalist movements who opposed the central otherwise sought a full-fledged federalization of the state and asked for moves towards regionalizing and decentralising the state (Evered, 2005; Hulst, 2005; Loughlin, 1996; Schrijver, 2006).

In the nearly decade after regionalization matured in European administration and politics, decentralisation followed regionalization as a "decade of decentralisation" (World Bank, 1997). It is a new form of territorial distribution of power based on cooperation and sharing, collaboration, and bargaining on fiscal, political, and administrative issues. In the fiscal and political decentralisation settings, each involves about 31 countries (Work, 2002) and about 63 developing and transitional countries (World Bank, 2008). The World Bank was involved actively, supported and proposed a framework by identifying particular institutional settings, designing decentralisation policies and determining the impact on efficiency, equity and macroeconomic stability, especially in developing countries. Since the 1990s, the World Bank has devoted an increasing share of its financing to supporting its client countries' decentralisation efforts, including in Africa

(e.g., Ghana), Asia (e.g., Japan), Europe (e.g., United Kingdom, Spain), and Latin America (e.g., Colombia).

By the time the new waves of political and economic institutions have become a trend and have been influencing several countries, particularly in unitary countries, the study of governmental system classification should start in parallel with a new perspective and fresh definition. Currently, the existing comparative political studies are at a very rudimentary stage or frequently skewed to a single case, especially in the federation system. Thus, it may still be worth considering from a comprehensive point of view by taking the federalizing process into consideration.

1.2   Problem Statements

The unitary and federation, both are accepted as a universal term of 'division of powers' (Finer, 1970; Lijphart, 2012; Livingston, 1952; Riker, 1964) or 'territorial governance' (Loughlin, 2014; Swenden, 2006). Since the eighteenth century, the unitary and the federation were adopted as the conventional classification of the governmental system and commonly explained in dichotomous manner. Until the twentieth century, regionalization and decentralisation had occurred, bringing with them a new concept of power division, particularly in unitary countries. Both trends are responsible for shifting the territorial distribution of power and strengthening subnational capacity and the function of broader society. Indirectly, these global trends have paved the way for the enlargement of federalization processes within unitary countries (Loughlin, 2014). Finally, for unitary versus federation, it has become more difficult to clearly distinguish the patterns of territorial management and power-sharing arrangements between both (Baldi, 1999).

These settings have resulted in a new form as mentioned by Loughlin (2014) as an "intermediate system", which is a so-called quasi-federation (Anderson, 2007b, 2010; Bagchi, 2003; Elazar, 1982; Loughlin, 2014; Watts, 1998), semi-federal (Elaigwu, 2010; Visser, 2010), regionalized or regional systems (Schrijver, 2006; Swenden, 2006), regio-federal system (Baldi, 1999) or (de)centralized unitary and federation (Braun, 2000). This new intermediate system has caused the territorial division of power to never be clearly classified either as an incomplete type of federation system or an evolutionary type of unitary system. The circumstances may be best illustrated by a continuum figure. As illustrated in Figure 1.2, some federalizing countries may be placed within the class of unitary and federated countries. Unfortunately, it is extremely difficult to draw clear boundaries between and among the categories (Loughlin, 2014, Rodden, 2004). This means that the dichotomy of unitary-federation is incongruous, irrelevant, and has been significantly challenged during the federalization process.

Figure 1.2
A Continuum of Unitary-Federation Countries

Unitary	⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯➤	**Federation**
Japan Portugal France UK Malaysia Austria Germany US		
Netherlands Italy Spain Russia India Australia Canada		
Luxembourg Switzerland		

Note. Modified from Loughlin (2014) and Rodden (2004).

Based on Figure 1.2, Japan or Luxembourg stand out as unitary countries, whereas the United States and Switzerland are recognised as federations. Yet France, Italy, Spain, and the United Kingdom, which follow regionalism and devolution, have some federal features, but in other respects, they remain unitary. Definitely, it is important to have a

clear-cut distinction among a variety of countries. Without classification, not only is it difficult to analyse, it even fails to recognise its very existence. In fact, there could be no advanced conceptualization and reasoning for further research (Bailey, 1994).

In the twenty-first century, the transition from unitary to federation is in fact ongoing. For instance, Iraq became a federation in October 2005; Nepal declared a federal democratic republic on May 28, 2008; and Sudan was constitutionally recognised as a federation in 2005 (Forum of Federations, 2022). In the Philippines, academics, politicians, and experts have continued to argue for federalism since 2000 in an effort to overturn centuries-old unitary traditions. (Abueva, 2000; Brillantes & Moscare, 2002). Professor Jose Abueva, from the University of the Philippines, was the first proponent of federalism to advocate for the implementation of federation in the Philippines. Abueva states,

> … this paper was written to provoke discussion and reflection on a radical alternative to the traditional unitary structure of the Filipino political system. I present ideas for transforming our unitary political system into a federal one in two stages that would take ten years to bring about, from 2000 to 2010. (Abueva, 2000, p.1)

The Philippines, however, remains unitary state. The idea of transforming their country into a federation has been squandered since 2000 (May, 2009). This transition entails a prolonged period of state formation (see Figure 1.3). As Nepal, during pre- and post-federalism, has been looking for the best formula to change the future of the country. Before federalism, Nepal had unclear internal boundaries, no historic constituent units, and no clear linguistic or ethnic boundaries. In fact, Nepal had not yet determined the

number and size of constituents needed until 2005 (Anderson, 2009). After a decade of federalism, Nepal ratified a new constitution in 2015, bringing a shared sense of hope and optimism to the face of political upheaval, a terrible earthquake, and the blockade of Nepal's border with India (International Alert, 2021). In Belgium, they did not have a blueprint for federalism at the beginning, but it happened gradually over a period of 30 years (Poirier, 2004).

Figure 1.3
Transition to Federalism in Nepal, Sudan, and the Philippines

Note. Modified from Anderson (2009), Venecia (2005), Abueva (2000), Brillantes & Moscare (2002), Hilotin (2018).

Nepal, the Philippines, and other countries in a similar situation seek the finest models to emulate, accumulate experience and learn from the collective wisdom of a well-established federation (Venecia, 2005; Watts, 2008). Under these parameters, this study noted that it is crucial to have a comprehensive typology, as the existing concept does not provide sufficient information regarding the premise, characteristics, and the best system to be modelled.

Conventional concepts differentiate a system significantly based on a country's size and social fraction. Distinguishing federation from unitary by these two compositions is rather misleading, even though it is useful for rudimentary understanding. As mentioned earlier, a federation essentially has a large size and a heterogeneous population fraction (cell 4), whereas a unitary composition is vice versa, i.e., small, and homogeneous (cell 1) (refer Table 1.2). Russia, Canada, the United States of America, Brazil, Australia, India, Argentina, and Mexico were more plausibly federations (cell 4), but not Germany, Malaysia, the United Arab Emirates (UAE), Switzerland, and Belgium. These countries have quasi-federation features or incomplete criteria in that they are heterogeneous and small enough to fit into the y category (cell 3). In the same vein, most of the unitary countries do not fit all the criteria. Calculated data supplied by Alesina, et al. (2003), Alesina and Ferrara (2005), and Fearon (2003), 23 percent of 167 unitary countries meet the key criterion of being small and homogeneous (cell 1). Approximately 76 percent consists of countries in the *y* category (small and heterogeneous), such as Uganda, Qatar, and Kuwait, whereas one percent is unitary in the *x* category (large and homogeneous) namely China and Saudi Arabia (cell 2).

Table 1.2
The Fourfold Typology of Governmental System

Population Fractionalization	Size of State	
	Small	*Large*
Homogeneous	Unitary ₁	x ₂
Heterogeneous	y ₃	Federation ₄

Note. This table illustrated from calculation data from Alesina, Devleeschauwer, Easterly, Kurlat, and Wacziarg (2003), Alesina and Ferrara (2005) and Fearon (2003).

As depicted in Table 1.2, the largest number in the *y* category is rather misleading. Thus, the composition of size and population fraction are insufficient to distinguish unitary from federated. The classification using a fourfold typology also restricts other relevant dimensions, which may have a significant impact for categorization and identification purposes. Since the demographic background of the countries is unique and highly complex, the precursor dimensions need to be extended across a broad spectrum for greater understanding of governmental systems.

Obviously, the conventional governmental system classification has lost its ability to describe empirical reality due to (1) the outdated dichotomy and (2) the ambiguous compositions (*y* category) or insufficient dimensions as a precursor of state identification. It is a gap that should be readdressed. Hence, this study adopted a new approach and comprehensive perspective as required. For the first problem, the system from unitary to federated has to be proposed in a real spectrum, as portrayed in Figure 1.2. Alternatively, countries that are similar must be placed on a continuum rather than a dichotomy (Baldi, 1999; Loughlin, 2014; Swenden, 2006), with the centralism of unitary on the far left and

the decentralism of federation on the far right (Baldi, 1999; Loughlin, 2014; Swenden, 2006).

Derived from the earlier continuum, the second problem is then inspired by the theory to develop new dimensions or compositions. By considering that federalism is multi-faceted in its features, it will be a pillar of the theoretical framework. Actually, federalism is often debated as a crucial consideration for state formation. In other words, it became a constitutive dimension of the larger continuum influencing the state's building or state collapse (ending with state dissolution). Since each state has its own unique blend of particular circumstances (internal diversity, e.g., multi-ethnic and linguistic, religious diversity, geography-federalism, democracy, number or level of constituent units, etc.), dynamic federalism is believed to be the best strategy to act as an adjustment to economic, socio-political, or ideational changes (Colino, 2010). However, there are countries that have rejected the outright federalism function from being practised because they "federally avoid" it. In fact, federalism can exist in the absence of a federation for heterogeneous unitaries (Baldi, 1999).

Long ago, the phenomenon of defunct federalism had obvious historic cases in Indonesia (1949-1950), Ethiopia (1952-1962), Rhodesia and Nyasaland, Cameroon, Pakistan, China, Yugoslavia (1943-1945-1991), Czechoslovakia (1969), and the Soviet Union (1922-1991) (Kavalski & Zolkos, 2008; McGarry, 2004). In the case of Indonesia (populated by over 40 million people), for example, federation failed due to perceptions that the system arrangement could severely undermine national unity. Sukarno perceived the federation provisions as an instance of neo-colonial "divide and rule" policy, aimed at

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weakening the political and territorial unity of Indonesia. Within this conflicting framework, the Indonesian federation existed for only nine months. In August 1950, Indonesia proclaimed a unitary Republic, replacing federalism with an ideological nationalism (unity of 100 ethnolinguistic groups).

Figure 1.4
Pyrrhic Victory: Defunct Federalism and Federal Avoid
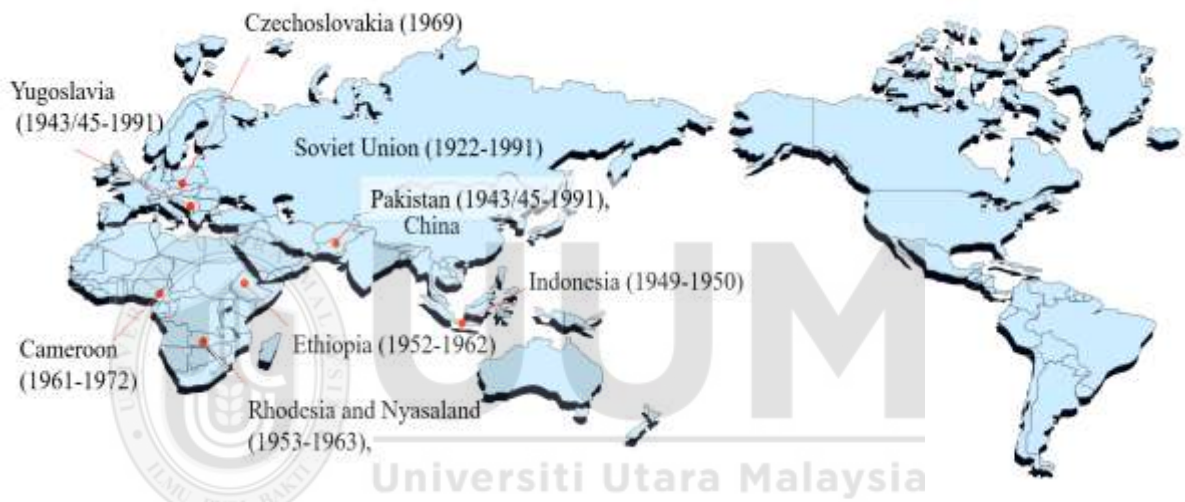
Note. Information from Goumenos (2008), Kavalski & Zolkos, (2008) and McGarry, (2004).

In a similar fashion, Ethiopia also failed in its federation experiment due to the unwillingness of Ethiopian state-elites (who monopolised power and authoritarianism) to meaningfully implement federalism. In fact, federalism was not even tried in the Ethiopian-Eritrean cases (Goumenos, 2008). In both cases, Goumenos (2008) perceived the conquest of a unitary state to have been a "pyrrhic victory," leading to the violent articulation of regional grievances and demonstrating the limits of unitarian policies in multinational societies. Surprisingly, in 1991-1995, Ethiopia finally adapted to federalism

and went through a two-phase transition from unitary to federation arrangement (Tewfik, 2010). Meanwhile, Indonesia remains unitary yet has moved towards substantial devolution to regional governments.

There is no doubt that federalism implies wider implications for country's premises, values, and attributes. Federalism is dynamic to solve a certain kind of problem because it lies not in the institutional or constitutional structure per se but in the society diversity itself (Livingston, 1952). Even Davis (1978) identifies federalism as synonymous with 44 verbs, including centralized, decentralist, functional, competitive, peripheralized, national, social, unitary, constitutional, military and political (Davis, 1978, p. 204). Hence, in this study, federalism dimensions used as a new composition of unitary-federation and presented in a typology. Through an illustrated typology table, many advantages achieved including, quickly and easily comparing groups, identification of similarities and differences and reduction of complexity. The typology, have to further meet the desire to identify the best system in the world after some processes of shifting were made over the four decades.

As proved earlier, there are several assumptions and arguments that federation countries tend to perform better than unitary (Burgess, 1993; Elazar, 1997; Watts, 2008). However, it has been questioned by Lane and Ersson (1999) that "it is difficult to understand why federation countries would be superior to unitary ones if it were not for better performance, meaning better outcomes-social, economic, or political ones under a *ceteris paribus* clause. Is this a valid claim?" (p. 77). A similar question was addressed in the article *"Are the federal systems better than the unitary systems?"* written by Gerring et al. (2007). To

examine all the queries, this study investigates eleven performance indicators under economic, fiscal and governance as a final package of the study. In fact, there are several studies (Biela & Hennl, 2010; Kapoor & Ravi, 2009; Lecuna, 2012; Treisman 2000, 2002; Fisman & Gatti, 2002; Lancaster & Hicks, 2000; Lecuna, 2012; Fan, Lin, & Treisman, 2009; Ivanya & Shah, 2011) that investigated the relationship or effect of federalism and decentralisation on performance.

1.3   Objectives of the Study

The objectives of this study are to:

1.   construct a typology of government systems, and

2.   examine groups which are likely to promote better performance.

1.4   Research Questions

The research questions were identified as follows:

1.   What are the relevant dimensions for a typology of government systems?

2.   How many groups should be constructed and how should the cases of countries be classified?

3.   What is the relationship between constructed types and attributes?

4.   What are the characteristics of each constructed type?

5.   Which groups in the government system promote the best performance?

These questions acted as the principal guidelines during the course of the research. This study was planned and set up to use the right method to answer all of these questions.

1.5   Research Gap

After several series of attempt and implementation on decentralisation (also devolution) the researcher propensity is more on comparative studies among decentralized client countries (Bird & Vaillancourt, 1999; Ebel & Yilmaz, 2002; Utomo, 2009; Work, 2002), or positive and negative effects on decentralized countries (Akai & Sakata, 2002; Bahl, 2006; Erk & Koning, 2009; Liu, 2007; Morozov, 2009; Thornton, 2007; Yao, 2006; Yilmaz, 1999). Whereas, in regionalism studies, much have written on the pertinent of top-down connection (central government to subunit level) (Biela & Hennl, 2010; Douence, 1995; Erk & Koning, 2009; Escobar-Lemmon, 2001; Osaghae, 1990; Swenden, 2006), its implication on such dimension; geographic, politics, social and economic (Evered, 2005; Hulst, 2005; Stephenson, 1972) or cross-countries study in Western Europe (Loughlin, 1996; Schrijver, 2006; Swenden, 2006).   The most popular research during 1980s until in the middle of 2000s is the cross-study of federalism and decentralisation (Brillantes & Moscare, 2002; Ebel & Yilmaz, 2002; Erk & Koning, 2009; Escobar-Lemmon, 2001; Oates, 2006; Osaghae, 1990).

In the federalism study itself, most of the writings were attributed into specific single or comparative federation case study by the prominent such as Burgess (1993, 2006); Burkhead (1974); Elazar (1982, 1985, 1987, 1995, 1997); Gagnon (1993, 2010); King (1982, 1993); Watts (1998, 1999, 2008, 2010,); Watts and Hobson (2000). Studies on unitary is relatively backward except for a few (Burkhead, 1974; Hulst, 2005; O'Malley, 1984; Stephenson, 1972) recurring studies on selected European countries such as the United Kingdom, Denmark, and Italy. There were only a few studies those are specifically

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the comparative study on unitary-federation system which is contributed by leading writers namely Elazar (1997) and Lijphart (2012) also Gerring et al. (2007).

Table 1.3
The Studies Area

Area	Topic	Researchers
Regionalisation	Top-down connection	Biela & Hennl (2010), Douence (1995), Erk & Koning (2009), Escobar-Lemmon (2001), Osaghae (1990), Swenden (2006)
	Implication on such dimension; geographic, politics, social and economic	Evered (2005), Hulst (2005), Stephenson (1972)
	Cross-countries study in Western Europe	Loughlin, 1996; Schrijver, 2006; Swenden, 2006
Decentralisation	Comparative studies among decentralized countries	Bird & Vaillancourt (1999) Ebel & Yilmaz (2002), Utomo (2009), Work (2002)
	Positive and negative effects on decentralized countries	Akai & Sakata (2002), Bahl (2006), Erk & Koning (2009), Liu (2007), Morozov (2009), Thornton (2007), Yao (2006), Yilmaz (1999)
Federalism	Single country or comparative federation case study – the USA, Canada, Australia, Switzerland, Germany, Nigeria, Mexico	Burgess (1993, 2006); Burkhead (1974); Elazar (1982, 1985, 1987, 1995, 1997); Gagnon (1993, 2010); King (1982, 1993); Watts (1998, 1999, 2008, 2010,); Watts and Hobson (2000)
	Unitary studies in European countries -the UK, Denmark, Italy Comparative study on unitary-federation	Burkhead (1974), Hulst (2005), O'Malley (1984), Stephenson (1972) Elazar (1997), Lijphart (2012), Gerring et al. (2007)
Federalism & Regionalisation	Comparative and thematic analysis	Biela & Hennl (2010), Swenden (2006), Burkhead (1974)
Federalism & Decentralisation	Cross-study of federalism and decentralisation	Brillantes & Moscare (2002), Ebel & Yilmaz (2002), Erk & Koning (2009), Escobar-Lemmon (2001), Oates (2006), Osaghae (1990)

Regarding to unitary vs. federated categorization research, Baldi (1999), Lijphart (2012), and Loughlin (2014) were among the authors who discussed the topic. At the outset of Baldi's (1999) writing, he highlighted a distinction between unitary and federation that was irrelevant. According to Baldi,

> The dichotomy between federal and unitary systems has lost the ability to characterise and classify the complex and diversified phenomenology of multilevel governance systems. New political and institutional developments have significantly contested the federal-unitary dichotomy over the past two decades. The first obstacle is institutionalised regionalism (Italy, Spain, Belgium, and France), a kind of regional power allocation that has never been fully categorised as either an incomplete federal system or an evolving unitary system. The difficulty in categorising regionalism is mostly attributable to the fact that regional systems have produced a wide variety of institutions, making it impossible to characterise a universal kind. The process of federalization seen by several regional systems (Belgium, Spain) has recently made it more difficult to identify regionalism. In actuality, the distinction between regionalism and federalism has lost its clarity. (Baldi, 1999, p.1).

Baldi (1999) proposed a classification framework for multi-level government systems based on two continuums: centralization-decentralization and centralism-federalism. Baldi placed the "unitary system" on the left end of the centralism-federalism continuum, followed by the "regional system," then the "regio-federal/federalizing system," and

finally the "federation" on the right end. Baldi (1999) concludes the article by stating the hypotheses of four types of federal systems: (I) federalization by integration (i.e., the United States); (II) federalization by disaggregation (i.e., Spain); (III) multi-national systems (i.e., Belgium); and (IV) mono-national systems (i.e., Germany). Loughlin (2014) presents four clusters, beginning with centralised unitary, decentralised unitary, regionalized unitary, and federal. Loughlin places a number of countries in the cluster but does not specify the classification or grouping method. Lijphart (2012) also classified federal-unitary states according to the distribution of centralised and decentralised authority. Lijphart conducted a quantitative analysis of 36 democratic countries (1945–2010), classifying them as unitary and centralised [1.0], unitary and decentralised [2.0], semifederal [3.0], federal and centralised [4.0], or federal and decentralised [5.0]. The value in the square box is the federalism index, which is given as 1.0–5.0; however, the index's composition is not specified.

The issue, according to Swenden (2006), is that the unitary federation distinction is too simplistic to convey the complexities of current government. Obviously, the classification of unitary-federation states is a phenomenon that is widely different, multifaceted, and characterised by distinct qualities and characteristics. This affects the potential for developing distinct classification systems for them. A typology based on the most significant, essential traits is one possibility for such a classification. The selection of a particular typology will depend on the type of variable under consideration and, more significantly, the nature of the issue posed. Therefore, typology is always overlooked despite its importance (Braun, 2000). For this unitary federation, type-based scientific classification has not yet been developed. In response to the need to address this gap, this

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study constructed a typology of government systems. The construction of the typology is not simple and may provide fundamental information; in fact, it is essential for further research or beneficial as a starting point for countries seeking a new government structure.

1.6 Contribution and Significance of the Study

Much has been written on both unitary and federation systems, but only at a cursory glance and without regard to scientific classification. Scientific classification study, although a fundamental and grounded requirement, provided insight that could lead to additional exploratory study and analytical loading. Thus, this empirical categorization study of unitary-federation systems adopted a typology-based approach within relevant aspects. The dimensions were derived from a federalist perspective, which eventually translates into an understanding of the government system as a whole. Concepts and ideas presented in this study may serve as a basis and good reference for the establishment of a new government system, improvements to governance, or to reset an ideal economic and financial arrangement. In this way, the study of federalism has enriched (value-added) information about governing system typology. These findings could be of great benefit for academic purposes as well as policymakers, implementers, and others in this field. Based on this research, a better system was identified, and this provides great information for government system improvement or good references to set up an ideal economic or financial arrangement. This research may also be valuable for countries looking for the best system and pursuing federalism potential; it provides more universal information and insight, allowing it to be discovered and extended to other countries.

In detail, this study offers information on whether power distribution (decentralisation) is necessary at subnational government or regional level. In Malaysia's case, although the Federal Constitution refers to it as a federation, the government structure was designed and functioned by its own mould. So called "a quasi-federalism" by Taghavi-Dinani (1982), Malaysia's system has a strong centralised bias like a unitary. At the state administration level, they once raised concerns about a lack of fiscal authority (taxation and spending); sadly, those concerns are now less effective (Shaikh Mohd Noor Alam, 1988). One criticism levelled at the current fiscal structure is that the federal government wields excessive power over fiscal policy and relegates state government requests to a secondary place. Another criticism levelled at the current budgetary framework is that political objectives are inextricably linked to strictly economic and developmental considerations (Nambiar, 2007). As of now, the central government retains the fiscal authority to guarantee efficient resource allocation and distribution to citizens. The agreed upon benefit of such a system is to provide a boost to economic growth and fiscal cooperation between government levels. However, from another vantage point, it also contributed to the ever-growing deficit in the state government account, which exceeded 0.5 percent of GDP from 1971 to 2006. (Umikalsum, 1991; Zahrin & Abidin, 2007). Nambiar (2007) makes the following argument in support of this position:

> ...the existing fiscal structure in Malaysia is antiquated and in need of reform…The government should move towards quite a different scenario, and aim to practice fiscal decentralisation for two reasons. First, economic considerations such as efficiency and a better allocation of resources will be served if there is greater decentralisation, with states taking more control over the running of their fiscal affairs. Second, it is not optimal to sacrifice

fiscal (and economic) efficiency for political advantage. In the process of waging a punishment and reward system, where the ruling party at the federal level more willingly supports those states that are in its hands, the larger economic welfare of the nation is left to slip into a state of second-best equilibrium. The fiscal system that Malaysia has inherited and perpetuates is one that is suited to encouraging patronage politics. We must move to a system that is more decentralized and which gives state governments a bigger say in what happens within their boundaries. (Nambiar, 2007, p. 1)

By examining the governance systems of a few decentralised countries, this study demonstrated how decentralisation was a beneficial strategy.

1.7   Scope and Limitation of the Study

This scientific classification study was designed with a certain scope and limitation. Firstly, this study involved a government system practised at the national level only, i.e., unitary and federation. Thus, any international system, as well as a historical confederation system, were excluded from the purview of this study. Given that the unitary-federation is a division of power in the multiple layering of government, the countries that are governed solely by a central government also do not fall within the scope of the study. Secondly, regionalization and decentralisation as they affect the existing system were also taken into consideration. Next, the typology dimensions will be constructed based upon the six dimensions of federalism (multi-faceted scope), namely geography, sociology, politics, legislature, regional authority, and fiscal decentralisation. Altogether, there were 13 attributes presented and illustrated in the typology. Finally, and

most importantly, is the scope of data collection. This classification study exclusively involved 70 selected countries. The eleven indicators of performance analysis were also embarked on:

(a) *Economic performance* (1) Gross Domestic Product (GDP) rate, (2) Gross Domestic Product (GDP) per capita, (3) unemployment rate and (4) inflation rate - data covered by the World Economic Outlook Database by International Monetary Finance (IMF), 1970-2019.

(b) *Fiscal performance* (1) government debt/GDP - data covered by World Development Indicators by the World Bank, 1980-2019.

(c) *Governance performance* (1) voice and accountability, (2) political stability and absence of violence, (3) government effectiveness, (4) regulatory quality, (5) rule of law, and (6) control of corruption - data covered by the Worldwide Governance Indicators, 1996 – 2019

Figure 1.5
Scope of the Study
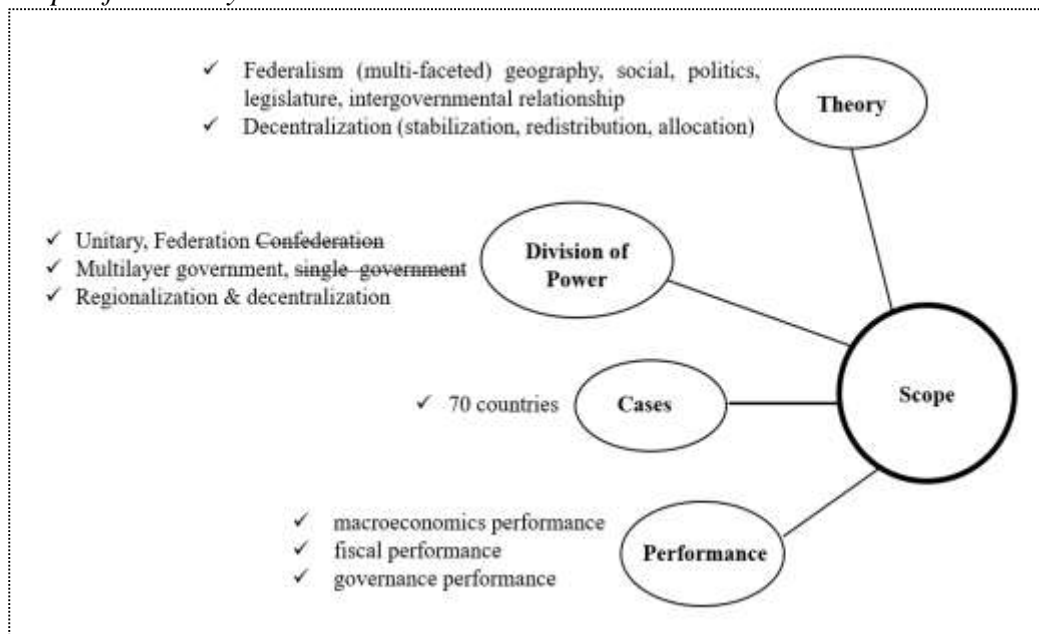
1.8   Operational Definition

There are some important key terms used in this study which can be defined operationally as follows:

System of Government

The majority of writers, including Forum of Federations (2018), Colino (2010), Gerring, Thacker, and Moreno (2007), Abueva (2000), Baldi (1999), Adamolekum (1991), Martin (1984), Break (1980), and Wheare (1963), have written on federation or unitary as a system of government. In this study, system of government or government system refers to both unitary and federated systems, even though some comparative political writings use form of government or type of government instead. For the purpose of standardization, this study used the terms system of government or government system as they are treated as synonymous.

Unitary

Unitary, as defined by Duignan (2019), is a government system in which the majority or all of the governing authority lies in a central government. In a unitary state, the central government transferred power to subnational units and delegated policy choices to them for execution. The bulk of nation-states are unitary systems, and they differ substantially (Duignan, 2019). In this study, unitary is referred to as a sovereign country in which most of the legal power is located in the top tier of government. As a division and decision maker, the central government may delegate political power to the subnational level through devolution so that they can only exercise those powers and responsibilities granted by the central government. In other words, the central government remains

supreme and ultimately controls all layers of government below it, which can reform, reorganise, or abolish regional government or units of local government without any special constitutional restraint.

Federation

Wheare (1946) used the term federation for only four governments: (1) the United States (the classical model for modern federations), (2) Canada (which he thought began in 1867 as a quasi-federation), (3) Australia (whose federation was more like the American than the Canadian had been), and (4) Switzerland (with its unique conciliar brand of federation). King (1982) defines federation as a descriptive term referring to a particular type of institutional relationship. Riker (1964), Elazar (1997), Burgess (1993), and Watts (1998) perceived federation as a constitution in which (1) two levels of government rule the same land and people, (2) each level has at least one autonomous area of function, and (3) there is some guarantee (even if just a declaration in the constitution) of the autonomy of each government's own domain. Federation refers to one species within the wider genus of federalism.

In this study, federation is defined as the levels of government empowered through constitutional provisions. Federations are typically organised into three layers of government: (1) a top-level government, also known as the central, national, or federal government (commonly used in federation countries); (2) a meso-level or middle government, also known as the state, provincial, regional, or county government; and (3) a lower-level government, also known as the local or municipal government, which may cover areas ranging from quite small to large metropolitan areas.

Subnational Government

Subnational government is defined as the sum of state governments and local or regional governments (OECD, 2018). In this study, subnational government is also referred to as subnational or non-central or subcentral government. This is a multiple layering of government below the top level, which consists of both levels, i.e., middle or meso-level (state, provincial, or regional government) and lower tiers (local or municipal government).

Classification

Elman (2005) perceives classification as the process of categorising things based on their similarities. Classification as a fundamental to the social sciences, yet it is seldom discussed methodologically, perhaps because it is embedded in research practise. Classification is the arrangement of situations according to their resemblance; it may be split down into two essential approaches: typology and taxonomy (Bailey, 1994).

In this study, classification is a crucial research design of this study which is viewed as the ordering of entities into groups or classes on the basis of countries similarity. Statistically, classifying the countries into five groups seek to minimizing within group variance, while maximizing between-group variance. The similarity of characteristics within group will be interpreted using *multidimensional* (correlated or related) approach as this study will involving five dimensions along as federalism multi-faceted nature.

Typology

A typology is an array or complete set of types. Typology is the general process of constructing and utilising type schemes of various sorts. Types are constructed in numerous qualitative studies in order to comprehend and explain as much as possible the complexities of social realities (Kluge, 2000). In other words, typology is the study of human, animal, plant, symbolic, and other types. Therefore, typology is also referred to as a scientific classification. Each typology is the result of a clustering method that divides an object field into a number of groups (called "constructed types") using dimensions. Typology can be built in unidimensional (a single dimension or feature) or multidimensional (many dimensions to be correlated or connected) cells that are labelled or named. The goal is to make each cell in the classification as similar as possible (Bailey, 1994). In this study, the typology, or 'types', is a way of describing groups of countries displaying different clusters in federalism perspectives. This study found that five clusters or groups were formed from 70 country samples using six dimensions and 13 attributes. The elements within a type have to be as similar as possible (internal heterogeneity on the level of the type) and the differences between the types have to be as strong as possible (external heterogeneity on the level of the typology).

1.9   The Organization of the Study

Six chapters comprise this study. Chapter One contains motivation for doing this study by highlighting the study's background and problem, as well as briefly clarifying the study's core structure, which includes the objective, research question, research contribution, and, most importantly, the study's organisation. Chapter Two explored prior research on conceptual and theoretical topics on federalism, regionalization, decentralisation, unitary

and federation. Chapter Three discussed the research design, including the establishment of conditions for data collection and analysis. Following that, Chapter Four accomplished the first objective and addressed all four research questions, which were about constructing a typology of government systems. Chapter Five was devoted to performance evaluation. Each group was further analysed based on its economic, fiscal, and governance performance. Thus, this chapter accomplished the second objective and addressed the fifth research question. Finally, Chapter Six summarised the facts and conclusions from the discussion. This chapter served as the climax of the discussion, culminating in a new viewpoint, and understanding of the necessity of subnational governments' power in balancing a country's social, political, and economic dimensions.

CHAPTER TWO

LITERATURE REVIEW

2.1   Introduction

Chapter two was essential yet crucial, as it provided a focal point for identifying critical

qualities for the construction of a typology in chapter four. To begin, federalism is first

defined from a conceptual and theoretical standpoint, and key variables are concurrently

discovered throughout this exploration phase. Next, federalism and the government

system were differentiated to convey a basic understanding of the unitary-federation

dichotomy from the perspectives of state origin, formation, and character.

Next, the chapter discussed how the government structure has changed over the last

decade as a consequence of two major waves of regionalization and decentralisation.

Numerous studies indicate an increase in the transfer of power and duties to subnational

governments due to both factors. Although much has been written about the transfer of

power via regionalization and decentralisation, the new appearance of the government

system's classification has been overlooked, thus making it outdated. This chapter then

proposed a classification scheme that included both regionalization and decentralisation.

Additionally, this study investigated the system's performance, focusing on governance

effectiveness and economic stability, in order to strengthen the argument for future performance discussions.

2.2   Federalism

The term "federalism" was invented by the framers of the United States Constitution in Philadelphia in 1787 (Verney, 1995). Federalism then developed in the United States, which underlay the post-1789 liberal state with an emphasis on individual liberty (Verney, 1995, p. 82). Accordingly, federalism was regarded as a normative concept of human nature and social relations. Federalism is not a static phenomenon, causing its discussion to expand and be multifaceted in: politics and democracy; ethnography and sociology; government institutions and structures; economic and fiscal responsibility; legislatures; geographical and environmental studies; history; etc. Federalism, according to Elazar (1995), is an inevitable heterogenous field, rather difficult to discuss satisfactorily on a conceptual and theoretical level. Although its greatest strength (in terms of federal ideas and structures and processes stemming from them) is its adaptability or flexibility, this adaptability leads to ambiguity and creates significant conceptual and theoretical challenges. In the same line, Erk (2006, p. 105) emphasises that the lack of uniform research aims in this study has resulted in a tangled mess of definitions for federalism. Federalism has been exploited for its many and loose political applications to the point that its meaning has been distorted and rendered false. Since federalism already takes into account different points of view, the language has been interpreted in different ways and changed to fit the different subjects.

2.2.1 The Definition of Federalism

Federalism is context-based, and context determines meaning. Given that the context of federalism is multifaceted (applied or understood differently by different people or perspectives), the next sub-topic intertwined federalism concepts written by scholars and researchers, which were then grouped to give significance to particular perspectives.

2.2.1.1 Federalism as a Normative Concept

Federalism is an essential *normative principle* of human nature and social relations. For Burgess (1993), federalism is essentially a value concept. Within a society, there are differences in ethnicity, culture, language, and religion, which has resulted in people being complex creatures. There is a basic presumption of the worth and validity of diversity, humans is complex with different needs and goal. In order to convert human purpose into human achievement, different forms of unity, collectivises forged, institutionalised, and structured organizing is needed. Due to a shortage of resources, the government is unable to fulfil all of the desires of a varied community while still wishing to protect the interests of everyone from conflict and dissatisfaction. Different types of unity, collectivises formed, institutionalised, and structured organisations are required to turn person or group needs into society demands. As a method to create unity while conserving society's variety, Elazar (1982), Burgess (2006), King (1982) and Watts (2010) articulate federalism as' diversity in unity' way.

The term "federalism" is derived from the Latin word *foedus*, which means "to be united." The term *"foedus"* refers to a societal agreement that recognises the importance of human interaction (Burgess, 2006). That means, federalism must be seen as a union of groups

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linked by one or more shared objectives while respecting the individual and group objectives (Friedrich, 1963). In the midst of this social upheaval, federalism frequently emphasises the notion of minorities being integrated, accommodated, conserved, and promoted within a larger political union (Zahrin et al., 2016). Federalism is developed from a variety of traits such as tolerance, respect, and mutual acknowledgment, all of which contribute to human unification and the formation of a state (Burgess, 2006).

2.2.1.2   Federalism as an Institutional Arrangement

Federalism has been referred to as the principle of institutional arrangement by most scholars (Elazar, 1987; Riker, 1964; Rosenthal & Hoefler, 1989; Bowman & Kearney, 1996; Oates, 1982). Elazar (1987) depicts federalism as an organizing principle for the territorial distribution of power, which qualifies it as' *self-rule plus shared rule* 'no matter how certain powers may be shared by the general and constituent governments at any particular time, the authority to participate in exercising. In a similar vein, Riker (1964) refers to federalism as a mode of political organization in which the activities of government are divided between central and regional governments in such a way that each kind of government has guaranteed (constitutional) autonomy to make final decisions.

The notion of federalism is frequently regarded as sensible and the finest approximation of a level government structure. The dimensions and premise of federalism imply that several clusters are structured and governed by distinct government units, each level being separated from the other and leveraging (Rosenthal & Hoefler, 1989). This viewpoint is similar to Wheare (1967: 46) who claimed that a system of government consisting of central government, each has its own power, equality and self-governance as established

in the constitution. Federalism, in other terms, expresses the concept of a state organised around the authority to work with one another.

As multilevel government system growth seems to have taken place in a difficult operation, federalism has presented the metaphors of *dual federalism* and *cooperative federalism*, which operate at a different scale, so as to successfully fulfil their particular functions (see Figure 2.1).

Figure 2.1
The Metaphors of Dual Federalism and Cooperative Federalism
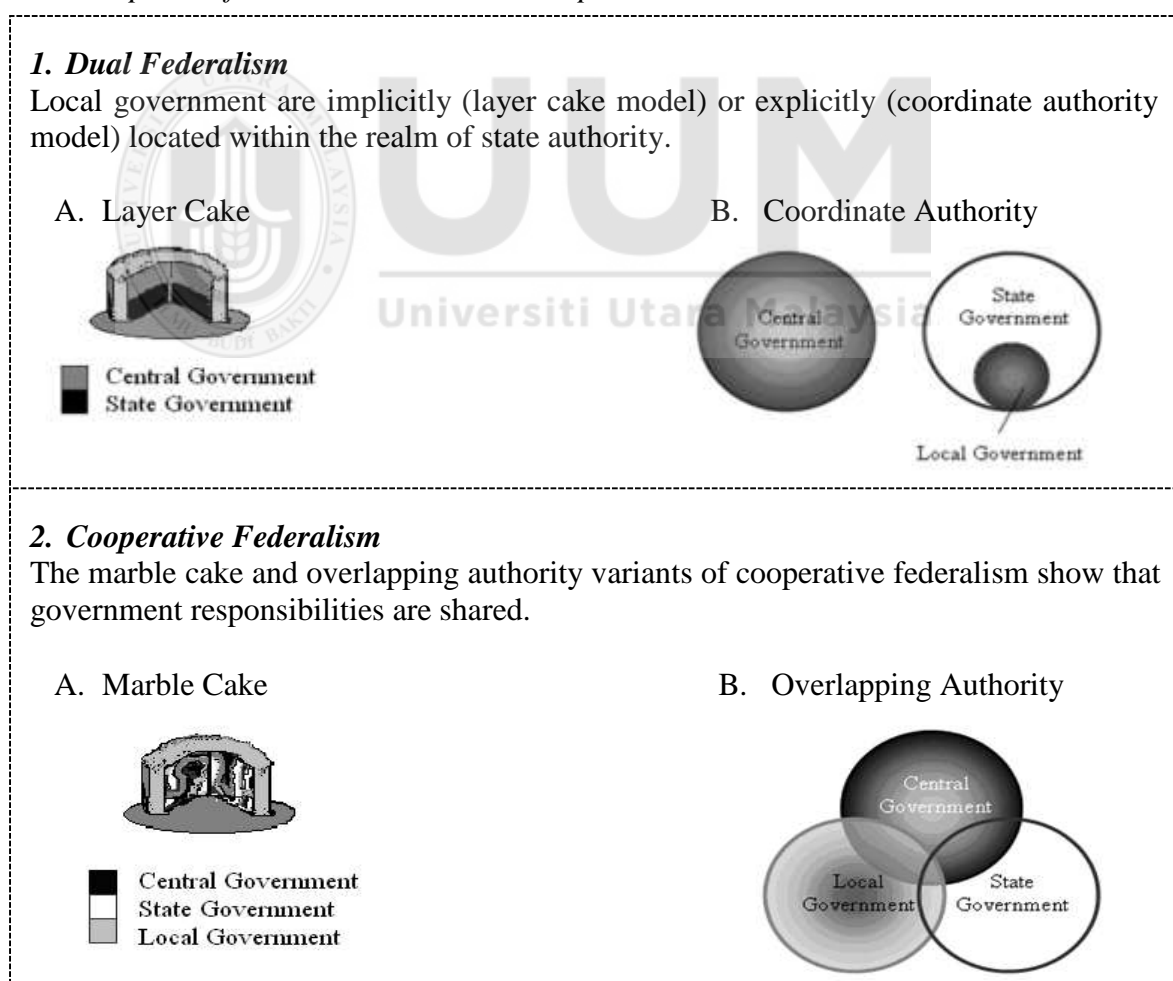
Note. Illustrated from Bowman and Kearney (1996) and Shah (1997).

Figure 2.1 demonstrates that the dual model of federalism has independent and distinctive tasks and operations by central and state governments. Therefore, central and state governments are sovereign and equal in their jurisdiction, as set out in the constitution, but the local governments are not constitutional. Under a 'layer cake' paradigm (Type 1A), the national and state governments often perform competing, non-cooperative roles, and local authorities have implicit state government control in the dual federalist coordination authority model, whose authority is expressly derived (Type 1B). Whereas the Cooperative Federalism Models regard like a marble cake (Type 2A) as equal functions or overlaps and shares responsibility on all levels (Type 2B). Decisions on a specific function will thus be taken at every government level and that the implementation of public policy is usually cooperated at all levels.

The model of *dual federalism* holds in which the responsibilities and activities of central and state government are separate and distinct. In this idea of dual federalism, the powers of the central government and the state, despite existing and being exercised inside the same territorial boundaries, are different and separate sovereignties, functioning separately and independently within their own areas. In other words, the state and national domains of jurisdiction were distinct and nonoverlapping (Shapiro, 2009). The federal government had entire power over certain matters, while the states had complete control over others. Thus, the central and state government are sovereign and equal within their respective spheres of authority as set forth in the constitution, yet the local governments do not have any constitutional status and are simply extensions of state governments. In the model so-called layer cake (with two separate flavoured layers one on top of the other), the national and state governments often assume competitive, non-cooperative roles under

such an arrangement while local governments implicitly derive their authority from state governments. In the coordinate authority model of dual federalism, such authority is explicitly derived.

Whereas *cooperative federalism* indicates that all levels of government are treated as equal partners, sharing responsibilities and solving common issues together, although the central government's supremacy over the states. This model acknowledges that overlaps do emerge when the central and state governments exercise their constitutionally-granted authorities. According to this, Oates (1982) illustrates the idea of "marble cake federalism" as the unavoidable overlap of responsibilities between the governments, comparable to the mingling of colours in a marble cake. Instead, Schapiro (2006) refers to it as "interactive federalism," which implies that both sides disregard their own limits and accept any overlap through collaboration. As for Md. Khalid (2018), cooperative federalism is a dynamic form of federalism as the central government and state powers make policies. They must find ways to solve problems that lead to duplication of jurisdiction in order to minimise the system's weaknesses, specifically through legal solutions. In this regard, decisions regarding a particular function are made at all levels of government, and all levels typically cooperate in implementing public policies.

Table 2.1

The Summary of Dual Federalism vs. Cooperative Federalism

Dual Federalism	Cooperative Federalism
The responsibilities of the central and state governments are separate and distinct. Both governments rule over the same land and people but have distinctive authorities and are sovereign in their own sphere. The central government controls national and international affairs, while the state governs the local citizens.	The responsibilities of the central and state governments are interrelated and cooperated. Both governments legislate in the same sphere and collaborate on policymaking.
Both governments share authority and responsibility horizontally. Dual federalism recognises state government authorities. Even some state government powers are co-equal to the central government.	Both governments structure of authority and responsibility is vertical. In this case, cooperation is bilateral. The line between the powers and responsibilities of the central government and the state governments is unclear.
The structure of dual federalism is rigorous. This hinders the immediate and decisive resolution of complex situations.	Cooperative federalism is more adaptable and offers a more realistic approach to intergovernmental relations.
Dual federalism promotes democratic values and prevents central government power abuse. Dual federalism encourages state-level competition. Stronger states can intimidate poorer members in natural resource allocation.	Cooperative federalism encourages collaboration but not democracy
Dual federalism is often called *layer cake* because it has different parts that work together. As applied in Canada, India, Mexico, Malaysia, and Russia, dual federalism also involves coordinated authority. The authorities of the centre and states are coordinated, while local governments work through state governments as they have no constitutional standing.	The form of cooperative federalism is a *marble cake*. Since the colours in the marble cake are mixed, so are the functions. Adopt in the United States, Germany, and Brazil. The central government determines the policies, while the state and local governments are responsible for implementation. Other varieties of cooperative federalism include overlapping, interdependent, and independent spheres.

Note. Summarized from Riker (1964), Oates (1982), Elazar (1987), Bowman and Kearney (1996), Schapiro (2006, 2009), and Md. Khalid (2018).

Federalism is the optimal configuration for a multilayer system of governance that is applicable to all types of government and often considered desirable. Federalism often advances expansive claim about its virtues, serves as a bulwark against tyranny and is essential for the creation and maintenance of democracy in geographically large or ethnically diverse political entities.

2.2.1.3   Federalism as a Constitution

In accordance with Wheare's concept, Kapur (1986) viewed federalism as a dual government in which power is divided and apportioned between the national and state governments by the constitution. Rodee et al., (1983:52) defined federalism as the constitutional authority exercised by national entities over their citizens. Akindele and Olaopa (2003) contended that as a federal country, a political entity or a sovereign nation would be required to make a choice in two phases or in line with a mutually agreed constitutional provision. The primary goal of federalism is not to achieve uniformity alone, but to achieve unity while maintaining variety.

According to Friedrich (1963, 1968), federalism is a bigger constitution, and the federal constitution represents a sliver of the overall process entailed by the contemporary constitution:

> Federalism can be, and often has been, a highly dynamic process by which emergent composite communities have succeeded in organizing themselves by effectively institutionalising 'unity in diversity'. A conception of federalism in dynamic terms … fits the notion of federalism as process into the notion of constitutionalism as process,

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and understands the relation between the inclusive community and the

component communities as a system of regularized restraint upon the

exercise of government power so as to make power and responsibility

correlative with the structure of a composite and dynamic community,

its interests and needs. (Friedrich, 1963, p. 628-529)

For Grodzins (1960) and Elazar (1982), they emphasized more on the importance of

decision-making partnerships at the Central and State levels based on functions in each

unit. In a similar tone, Riker (1964) described federalism as a means of organizing

government activities by dividing autonomy between central governments and certain

regions through constitutional guarantees.

2.2.1.4   Federalism as a Political Consent

The phrases "federalism," "federalist," and "federalize" have been used to denote the

consolidation and preservation of political consent. Friedrich (1963) perceives federalism

as a continuous and constructive political process. While other scholars view federalism

as a process of democracy (Erk, 2006), participation, representation, and accountability

(Elazar, 1987), or political bargaining (Riker, 1964) and influences the party system

(Chhibber and Kollman, 2004). Davis (1978) identifies federalism as synonymous with

44 verbs, including politics:

Dual, orthodox, classic, polis, traditional, cooperative, bargaining,

integrated, interdependent, creative, new, permissive, functional,

pragmatic, organic, pluralistic, monarchic, perfect, imperfect, direct,

private, picket fence, coercive, competitive, centralized, decentralist,

peripheralized, fused, corporate, national, social, oligarchic, unitary, constitutional, international, military, political, monistic, polar, total, partial, contract, feudal-functional and incipient. (Davis, 1978, p. 204)

Federalism fosters political participation and a sense of the democratic community, and it helps to protect basic liberties and freedom. This might be on firm ground, as Filippov, Ordeshook, and Shvetsova (2004) have shown that federalism is established on account of political. The political justifications necessary for federalism to protect the rights of those minorities, in ethnic, religious, linguistic or otherwise, and allow constituent units to discourage the alienation of similar tastes in public services, improve the level of welfare, and presumably a degree of satisfaction with political institutions that are unavailable to a non-federal state, are also intended to allow for the decentralisation of conflict (Filippov, Ordeshook & Shvetsova, 2004). Federalism has a great use for individuals, groups, and organisations within a society and has even exerted world-wide influence. Furthermore, federalism has a positive impact on conflict resolution (as a conflict-resolution mechanism), as an expression of democratic practises encouraging innovation in policy preferences, and as a safeguard for minorities and territorial interests (Gagnon, 1993).

2.2.2 Theories of Federalism

Given that there is no universal accepted definition of federalism (Ogunnoiki, 2017), theorising about it has been a challenge for the general discussion, and little focus has been put on developing theories about federalism (Paleker, 2006). Currently, there are two schools of thought which explain federalism in theory; first, the Liberal School of

Thought, and secondly, the Realistic School. The Liberal School was supported by 20th century authors such as Elazar (1982, 1985, 1987, 1995, 1997), Burgess (1993, 2006), Wheare (1963) and A. Spinelli (Dosenrode, 2010, p.12). These scholars write about federalism as a federal institution that divides power in the constitution between the centre and other federal components/units. The Realist school, on the other hand, consists of scholars like Riker (1964) and David McKay (Dosenrode, 2010, p.15). The discourse of federalism of the Realist School federalism school is at odds with the Liberal School. The Realist School sees federalism in political reality and in the legal framework. According to the School of Realism, federalism stems from internal and external threats that can be military or diplomatic in nature. Federalism is a political party structure that is either centralised or divergent (decentralized). For Riker, "The structure of the party is in line with the structure of federalism." When the party is fully centralised (such as in the Soviet Union and Mexico), so is federalism. In contrast to decentralised parties, federalism is only partially centralised "(Riker, 1975, p.137). Of these two measures of federalism, Riker advocates centralised federalism because "peripheral federalism can hardly be expected to provide an effective government." They fall apart gradually until they become easy prey for their enemies. Centralized federalism, on the other hand, became more like a government or union government at the time, which helped the whole federation work better in a dangerous world (Riker, 1987, p. 11).

Based on these two schools of thought, the discourse of federalism is elaborated according to varying dimensional perspectives by scholars. From a theoretical perspective, there are four main dimensions (approaches) that can be categorised to explain federalism.

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i. **Institutions or constitutions**: Wheare explains federalism from the point of view of institutional legal theory.

ii. **Sociology**: Livingston from the perspective of sociological theory.

iii. **Politics**: Riker is about the theory of negotiation.

iv. **Process**: Friedrich explains federalism in process theory or developmental theory.

(Ogunnoiki, 2017; Paleker, 2006, Birch, 1966, p.15).

According to Ogunnoiki, (2017) and Paleker (2006), federalism was classified into the following theories based on the four dimensions listed above:

i.   *The Classical Theory of Federalism*

The classical theory of federalism is popular among scholars (Dicey, Brown, Bryce, Moore, Garaan, and Wheare), and the only theory included in this category is the theory of a legal institution. The legal theory of Wheare's institutions is a classic theory of federalism based on the model of American federalism. This theory of institutional law was started in the 19th century by the British constitutional lawyer (Dicey). It is considered a classical theory because it uses the traditional approach to political science, which is the institutional approach.

ii. *The Modern Theory of Federalism*

It adopts analytical and empirical methods to explain federalism. It is made up of sociological theory, political theory, and process theory.

iii. *Federalism's Origin Theory*

The origin theory of federalism explains the circumstances favourable to the establishment of a federal system. This theory of federalism consists of sociological

theory, negotiation theory (bargaining), and political theory. This theory looks at the social and political factors that led to the rise of federalism.

iv.   A Functional Theory of Federalism

Theories found in this category are institutional law theory, sociological theory, and process theory. The core of the theory is the source of power for performing functions at each level of government (central and sub-constituent). This category theory explains how federalism is used to define federation and protect society. It also explains how federalism helps government units find solutions to problems.

Table 2.2
Theories of Federalism by Dimensions

Federalism Theories	Scholar	Dimensions	Classical Theory	Modern Theory	Origin Theory	Functional Theory
Institutional Law Theory	Wheare, K.C.	Institution or Constitution	/			/
Sociological Theory	Livingston, W.S.	Sociology		/	/	/
Political Theory	Riker, W.H.	Politics		/	/	
Process Theory	Friedrich	Process		/		/

Note. Adapted from Ogunnoiki (2017) and Paleker (2006).

2.2.2.1   Institutional Law Theory of Federalism

Under the influence of classical theory, federalism is portrayed as a system that distinguishes and alienates power between the general (central) and regional governments (Bryce), each have sovereignty, coordination, and freedom within their own sphere (Garan). From the Bryce and Garan concepts, Wheare went a step further, identifying the desires of countries as a necessary condition for the formation of a federation:

It would seem that a federal government is appropriate for a group of states or communities if, at one and the same time, they desire to be united under a single independent general government for some purposes and to be organised under independent regional governments for others. Or, to put it shortly, they must desire to be united, but not unitary. (Wheare, 1953, p.36)

A decade later, Wheare (1963) referred to the constitution as a federation. A constitution can be referred to as a federation if there is a predominance of federal principles in the constitution. His use of the term "predominate" suggests that he does not apply his ideas exclusively to federations. As he says, a constitution only ceases to be federal:

If...there are so many modifications in the application of the federal principal, that it ceases to be of any significance...the most instructive and reasonable way to use the term "federal constitution" seems, essentially, to be define the federal principle rigidly, but to apply the term "federal constitution" more widely. (Wheare, 1963, p. 15)

Wheare used the following test to figure out if a constitution was federal or not:

The test which I apply to the Federal Government is simply this. Does a system of government embody predominantly a division of power between general and regional authorities, each of which, in its own sphere, is coordinated with the other's and independent of them? If so, that government is federal. (Wheare, 1963, p.33)

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This question led to the classic theoretical conclusion that each independent government in the police was twice for two levels of government, central and regional. Classical theorists mention several conditions in this system:

1. A written constitution.

2. The constitution is to be rigid.

3. There has to be an independent judiciary.

4. Both level government directly operate on the life of the citizen.

5. There should be allocation of adequate sources of revenue for the government at each level, general and regional.

(Paleker, 2006)

The classical theory explains federalism in juristic terms, in which a federation polity can be distinguished from a unitary where the constituent units exercise their powers in subordination to the will and discretion of the general (central) government of the whole country.

> Federalism is an appropriate form of government to offer to communities or countries of distinct, differing nationalities who wish to form a common government and to behave as one people for some purpose, but wish to remain independent and, in particular, to retain their nationality in all their aspects. (Wheare, 1967, p.35)

This theory, formed on the ground of legal formalism, however, faces criticism and challenges in terms of wars and depression, economic planning, and social services that make this classical theory of federalism obsolete (Palekar, 2006). The legal-institutional

theory of federalism has not proven to be a time-tested and comprehensive theory based on his view of federalism as a federal principle of dividing power between the general and regional governments as spelled out in a federal written and rigid constitution (Ogunnoiki, 2017). Further objections to the term "independent" to represent the relationship between the general and the regional government in a federal political system. "Independence" might mean being alone, but for a federal system to work, neither the central government nor the regional governments can work independently of each other (Paleker, 2006).

This theory is also not concise because a third tier of government failed to recognise such local government. This theory also failed to elaborate on some words that he used to explain the definition of federalism in strictly dividing powers between two levels of government. The method should come up with its own sphere, coordinates, and independence. For example, it is ambiguous. Livingstone criticised Wheare's legal-institutional theory of federalism because his theory ignores sociological variables or a person's federal qualities (Ogunnoiki, 2017). According to him, typically, differences in economic interests, religion, race, nationality, language, great distance separation, differences in historical background, previous existence as independent countries or separate colonies, and dissimilarities in social and political institutions can cause diversity (Ogunnoiki, 2017; Paleker, 2006). Livingston also redefines a federal government as a form of politicos and constitutional organisation that unites into a single polity a number of diversified groups or component politic so that the personality and individuality of component parts are largely preserved while creating in the new totality a separate and distinct political and constitutional unit (Ogunnoiki, 2017).

2.2.2.2 Sociological Theory of Federalism

The sociology theory is one of the earliest theories of federalism, and Livingston is recognised as the first exponent of the theory. The sociological theory arose as a result of weaknesses in Wheare's legal-institutional theory, and he denied the constitutional or legal basis of federalism. According to Livingstone, federalism is not a function in terms of constitutions but sociological arrangements.

> The essential nature of federalism is to be sought not in the shading of legal and constitutional terminology but in the forces-economic, social, political, and cultural-that have made the outward forms of federalism necessary. The essence of federalism lies not in the constitutional or institutional structure but in society itself. The federal government is a device by which the federative qualities of society are articulated and protected. (Livingston in Adeola & Ogunnoiki, 2020, p. 82; Ogunnoiki, 2017, p. 69)

This theory centres on the federation nature of society that spawned the federal political system. A federal society is one that incorporates elements of diversity. "Diversity in economic interests, religion, race, nationality, language, great distance separation, differences in historical background, previous existence as independent countries or separate colonies, and dissimilarities in social and political institutions" (Singh & Kumar, 2016; Paleker, 2006). Livingston (1952) believes that diversity in society is one of the natures of fellowship. According to him,

> if they are collected regionally or geographically, the result may be a federal society. If they are not collected on a territorial basis, society cannot be called federal. However, only in previous cases can this take the

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form of federalism of the federal government; in the latter case, it becomes

the same functional pluralism, or form of corporatism. (Livingston, 1952,

p. 23).

Livingston laid down the important condition that diversity must be territorially grouped in order to result in the formation of a federation. These differences must not be so great that they split the community into independent groups, nor should they be suppressed to make way for a unitary government system.

The sociological of Livingston, however, has been criticised:

1. The theory has merely pointed out the various kinds of diversity but has not explained the factor which generates the desire among the diversity for establishing a general government within a federal framework.

2. The theory lacks definite indices and criteria by which a federal society can be distinguished from a non-federal society. This resulted in paradoxical claims such as Wildavsky portraying the United States as a federal society and Riker's claims as sufficiently integrated to justify federalism over a unitary system if the United States' leaders chose to do so.

3. The idea of federal society on this theory is vague and full of ambiguities, with each scholar interpreting and bearing on federalism in their own way.

4. Although Livingston's sociological theory identifies diversity in society as what necessitated the founding of a federation, this theory nevertheless falls short in making known what actually propelled these diverse nations (e.g., economic

advantage, security, shared problems, etc.) to agree to the formation of a federation when they can actually opt to be an independent nation.

<div align="right">(Ogunnoiki, 2017; Paleker, 2006)</div>

2.2.2.3 Political theory of Federalism

The second origin theory is the political theory of federalism. So-called bargaining theory, this theory concentrates only on countries and decision-makers, ignoring the diversity of individuals within a society as a component in theorising federalism, as sociological theory does. This political theory of federalism was founded by William H. Riker (1920-1993). Riker (1964) explained the origins of federalism as a bargain among political leaders with expansionist and militaristic concerns. Riker comes up with two "necessary" but "inadequate" conditions for the "bargain of federalism", the expansion condition and the military condition.

1. The politicians negotiating the deal want to expand their territorial control, often in response to an external military or diplomatic threat or in preparation for military or diplomatic aggression and aggrandisement. Despite their desire to expand, they are unable to do so through conquest, either due to military inadequacy or an ideological stance.

2. The politicians who accept the bargain, ceding some autonomy for the sake of unification, do so in response to an external military-diplomatic threat or opportunity. Either they want to be protected from a threat from outside or they want to take part in the federation's possible aggression.

<div align="right">(Riker, 1964)</div>

Political leaders seeking to regain control over the government's fragmented territories in response to military or diplomatic threats are unable to do so through conquests, instead offering concessions on the independence of component territories. Riker believes that federalism is a political solution that follows the collapse of the empire or tries to develop a growing political community while preserving and protecting the sovereignty of component units (Riker, 1964).

In the modern theory of federalism, Riker also mentioned that federalism is a political organisation in which the activities of the government are divided between central and regional governments in such a way that each kind of government has some activities on which it makes final decisions. In his theory, Riker (1964) discovered that the structure of federalism is linked with the organisation of political parties. In other words, the degree of centralization in federal systems is linked to the degree of centralization among their political parties. According to him,

> The federal relationship is centralised according to the degree to which the parties organised to operate the central government control the parties organised to operate the constituent governments. This amounts to asserting that variations in the degree of centralization (or peripheralization) in the constitutional structure of a federalism are proximately caused by variations in the degree of party centralization. (Riker, 1964)

Riker therefore describes two equilibrating features necessary for the survival of federalism:

1. centralisation, which allows the central government to exploit the advantages of a larger base for taxes and armies, and

2. maintenance of guarantees to the constituent units, which prevents the transformation of federalism into a unitary government,

He stated that the United States was a politically centralised federation system. The invention of centralised federalism in the United States is particularly highlighted with all instances of the formation of federations since 1786. Riker states that federalism is nothing more than a deal between people who want to be national leaders and people who run local governments. The goal is to combine territories so that it is easier to collect taxes and build armies.

2.2.2.4   Process Theory of Federalism

Carl Friedrich's process theory of federalism is the last, but definitely not the least, of the main ideas. Federalism, in Friedrich's (1968) views is a dynamic process of federalizing. In his words,

> federalism seems to most suitable term by which to designate the process
> of federalizing a political community, that is to say, the process by which
> a number of separate political organizations, be they states or any kind of
> association enter into arrangements for working out solutions, adopting
> joint policies and making decisions on joint problems or reversely, the
> process through which a hitherto unitary political community as it
> becomes differentiated into a number of separate and distinct political
> communities now separately organized become capable of working out

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separately and their own, those problems they no longer have in common.

(Friedrich, 1963, p. 9)

Further, Friedrich (1963, p. 2). asserts that "if thus understood as the process of federalizing, it will become apparent that federalism may be operating in both the direction of integration and differentiation." Friedrich continued by laying out the prerequisites for establishing federal systems (Friedrich, 1963, p. 24). A significant feature of Friedrich's centralization is its applicability to both systems conforming to Wheare's traditional formulation and confederal, unitary, and nongovernment organisations (Jinadu cited in Okhonmina, 2006). Friedrich's reformulation is especially helpful since it is less limiting than Wheare's federal instrumentalities; it manifests in a variety of political systems, including centralised, decentralised, and supranational cooperation. Friedrich recognises the need to grant autonomous authority to separatist parties under a unitary government when separatist forces exist. Jinadu (in Okhonmina, 2006, p. 202) states that the process perspective "makes us aware of the changing and evolving nature of the federal balance of power and the fact that inter-government cooperation usually cuts across the formal constitutional division of powers."

The dominating force in the political system will shape the interaction between the two levels of government. A federation formed by centripetal forces is probable. Conversely, a federation dominated by centrifugal tendencies is likely to be disaggregated. Unlike Livingston, Friedrich's sociological approach does not reject the constitutional or legal foundation of federalism (Okhonmina, 2006, p. 202). Friedrich process theory has also

been criticised; theoretical propositions described federalism in broad strokes and federalism was seen as a dynamic process, making it impossible to identify a particular time period during which a polity is claimed to be practising federalism. Burgess also said that this approach is insufficiently precise in terms of federalism.

Summary of theories of federalism

From the description of the above theories, it can be summarized as follows:

Table 2.3
Summary of Federalism Theories

Theory	Summary
Institutional Law Theory	• distinguishes and division of power (constituent unit exercise their powers) • own sovereignty, coordination and independent/freedom • written rigid constitution • **independent judiciary**
Sociological Theory of Federalism	• denied the constitutional or legal basis of federalism • sociological arrangements: economic, social, political, cultural • qualities of the society are articulated and protected • **diversity in society** - territorially grouped
Political theory of Federalism	• concentrates only on countries and decision-makers • origins of federalism as a bargain among political leaders with expansionist and militaristic concerns • politicians negotiating the deal want to expand their territorial control • federalism is a political organization • each government has some activities on which it makes final decisions • structure of federalism is linked with the organization of **political parties.** • degree of centralization in federal systems is linked to the degree of centralization among their political parties.

Process Theory of Federalism	• variety of political systems, including:
	  - **centralized,**
	  - **decentralized**, and
	  - supranational cooperation.

2.3   Federalism vs System of Government

Federalism as a system of government originated in Europe after the Protestant Reformation, which was led by Martin Luther and John Calvin, in the 16th century, and continued into the 17th and 18th centuries, during the Industrial Revolution and the Age of Enlightenment, when Thomas Hobbes, John Locke, and Jean-Jacques Rousseau developed the Social Contract Theory of the origin of states (Ogunnoiki, 2017).

The 17th century is known in world history for events that transformed the world. It was the period in world politics when modern states emerged as autonomous entities and significant actors. On October 24, 1648, in what is now Germany, the Treaty of Westphalia was signed in Münster and Osnabrück. This put an end to the Thirty Years War (1618–1648), which was a religious war between Roman Catholics and Protestants (Ogunnoiki, 2017).

In the 18th century, French political theorists, Baron de Montesquieu (1689–1755) contributed to the creation of federalism as a governing system in *L'esprit des Lois* (1748) and *Jean Jacque Rousseau* (1712–1778) in *Du Contrat Social* (1762) (Elazar, 1987). According to Rousseau's *social contract theory*, the state is a widely formed agreement. The government held authority in trust to further the will of the people. Unfortunately, during the French Revolution (1789–1799), Rousseau's manuscript for what could have been his work on federalism was destroyed. While Montesquieu recommended a "confederate republic" and a "separation of powers" between the three parts of government; Legislature, Executive and the Judiciary to avert tyranny or a despotic ruler (Ogunnoiki, 2017). The writings of these two political thinkers, Rousseau and

Montesquieu, affected the formation of the federal government of the United States (Ogunnoiki, 2017). The creation of this federal structure began in the Philadelphia Convention over the ratification of the United States Constitution in 1787, when the founding fathers of American federalism, the *Publius* i.e., James Madison (1751-1836), Alexander Hamilton (1755-1804), and John Jay (1745-1829), through their over 85 written articles known as the *Federalist Papers,* "emphasized the idea that horizontally the three branches of the national government and vertically the division of power between it and the states would prevent excesses. States, among other power centers, would check and balance national authority" (Ogunnoiki, 2017, p. 63).

In the 19th century, Alexis de Tocqueville in *Democracy in America*, he wrote the delicate relationship between liberty, equality, and mass democracy (Burgess, 2006). While in Germany, their political theorists looked into federalism and compared the *Bundesstaat* and *Staatenbund* (Ogunnoiki, 2017, p. 63). Another influential political thinker who contributed to the formation of federalism was John C. Calhoun. Calhoun proposed *"concurrent majority"* as a formation of federalism. The *concurrent majority* was established in the United States to defend minority rights. Calhoun resided in the United States of America before the Civil War. He opposed the federal government taking the rights and powers of the various states, which may have contributed to the separation of the Northern and Southern States (Ogunnoiki, 2017). In French, political philosopher Pierre-Joseph Proudhon made predicted that the twentieth century ""will open the age of federations, or else humanity will undergo another purgatory of a thousand years" (Ogunnoiki, 2017, p. 63). William H. Riker, a key federalism scholar of the twentieth

century, confirmed Proudhon's view (Riker, 1964, p.1). According to Riker, in 1964, federalism dominated nearly half of the world's geographical mass (Riker, 1987, p.6).

Federalism, from a historical perspective has had relevant effect on evolution in system of government. Federalism's growth parallelly with the history of the system of government makes these two terms tend to be discussed together. Given that the term "federal" is a fragment of federalism, both are more prone to being woven together, obviously used by turns, often treated as synonymous, and some even consider it necessary to discuss mutually, when in fact they are distinct. In this regard, King (1982), Elazar (1985), Burgess and Gagnon (1993), Verney (1995) and Watts (1998) differentiate **federalism** as a **genus** of political organization, whereas federation is one of the systems of government besides unitary, and all probabilities of systems such as semi-federal, federacy, confederation, associated statehoods, unions, condominiums, hybrids, and leagues, which they are **species** (Watts, 1998). With these definitions, it is interesting to note that federalism exists even in a unitary system of government. This species is a tangible institutional reality. It is all about organizing principle and form which includes some cluster techniques, structures, legal (some may involve a constitutional), political, administrative, financial, mutual independence and interdependence among units of government (Burgess, 1993). Even though some countries have been classified in certain species (see Watts, 1998), but this section only affected the unitary and federal perspectives which both are adopted as a universal government system term in the world.

2.4   Unitary *vs.* Federation: The Classical Dichotomy

The classification analysis of the government is as old as from the annals of ancient to modern political history. At the beginning of the fourth-century BC, Herodotus (484-425 BC), Plato (427-347 BC) in the *Republic* and Aristotle (384-322 BC) in the *Polity* presented Monarchy, Aristocracy, Democracy, Ideocracy, Timocracy, Polity, Oligarchy and Tyranny regimes as the basis of classification. The classification debate was very limited to revolve around the studies of sovereignty, quality of rules and manners of the governors resembling. Later in the mediaeval period, the classification was enhanced by Bodin (1530-1596), Johannes Althusius (1562-1638), Montesquieu (1689-1755), Jean-Jacques Rousseau (1712-1778), Immanuel Kant (1724-1804), John Stuart Mill (1806-1873) and Pierre Joseph Proudhon (1809-1865). They improved the Aristotle's treatise and set up a new form of constitutional with respect to the evolution of liberal-constitutional democratic state and the rise of nation-state aspirations.

The era of modern nation-state increasingly grew into a complex way especially after colonialism and power expansion in Europe and West ended. In fact, up to the formation of American and French Revolutions, the idea of nation-state has been fully developed. Such formation resulted in a distinctive understanding of the state, modern nation-state sovereignty and allegiance, political organization the civil-society relationship and territorial distribution of powers. Finally, in the end of the eighteenth century, the prominent of the nation-state acknowledged two most important types of territorial government namely the unitary in France and the federation in the United States. This shows, the new modes of classification came on the scene while the old classification of regimes increasingly lost its' significance. The basis of the second classification changed

dramatically as such the institutions of state and governments grew in America and Europe. In other word, the classification based on the nature of constitution, legislature, concentration, and distribution of power within countries, public participation, and the role of ideology (Loughlin, 2014).

2.4.1 Origin and Formation

Ever since the end of the eighteenth century, political regimes had used two bases of territorial distribution of powers, that is unitary and federation. Unitary in France, as the first prototype was configured under Napoleon, which laid the state par excellent characterized by 'unity and indivisibility' (Loughlin, 2014). This system became a powerful model in the nineteenth century which earlier followed by Greece (1821) and Italy (1860). Indeed, the influence was overwhelming as majority of the countries in the world either ruled solely by central government such as Singapore and Monaco or governed in a multitier form, for instance the United Kingdom, Japan, Indonesia, Thailand, Denmark, Korea, New Zealand, Norway, Netherlands, Philippines, Portugal, Sweden and so forth.

In contrast, the federation system was first invented in the United States (Philadelphia Convention in 1787) and followed by less than thirty countries out of 193 entities in the United Nations. Figure 2.2 shows the timeline of the federation countries followers who came from North America, South America, Europe, and to continue to spread to the rest of Asia and Oceania. By considering the number of adherents, federation system seems likely is unpopular choice as compared to a unitary system due to the factor of unwillingness to share and divide powers with other units.

Figure 2.2
The timeline of federation followers, 1970s-2010
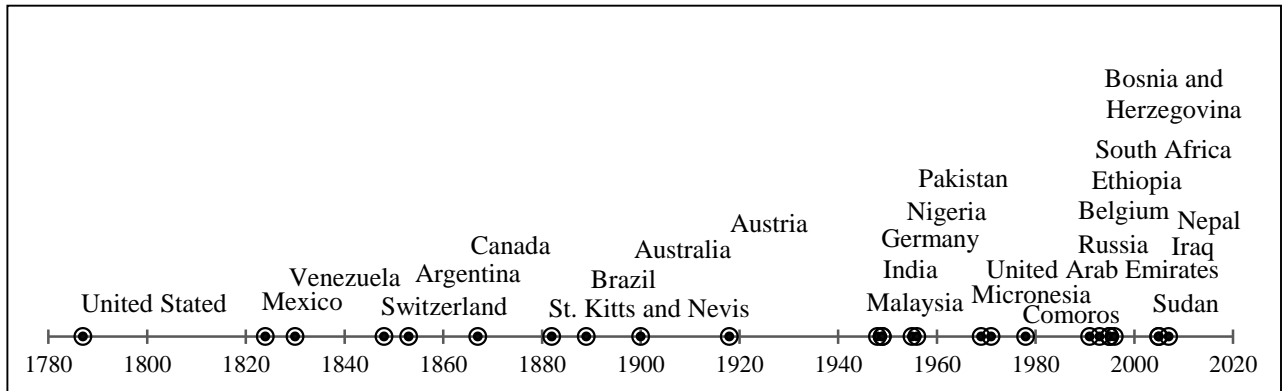
Note. Own work. Illustrated from the information of Forum of Federations (2011) in the year of origin or formation of federation countries.

In precedent history, the unitary formation is driven by authoritarian and monarchy characters, undemocratic structure, design in single central power, small size of territory and homogeneous in social attribute. Therefore, they created national policy and applied uniformity to know the exact law so that they were able to generate equal rights and duties for residents regardless of geographical location. As a result, unitary became the most preferred system and is accepted by majority of the countries.

Conversely, the federation idea emerged in different eras and circumstances, each being the unique result of the constitutional bargain among political leaders and larger historical forces of political instability, external economic pressure and impelled by military security (Burgess, 2006; Taghavi-Dinani, 1982; Volden, 2004). Based on the history of the United States and old federation followers, Riker claims that all federation countries originate from external threats or war with neighbours. This argument actually was first sets out by

Riker (1964) in *Federalism: Origin, Operation, Significance* by putting forward twofold conditions (hypothesis) of federation origins, namely:

1. The Expansion Conditions

The politicians who offer the bargain desire to expand their territorial control, usually either to meet an external military or diplomatic threat or to prepare for military or diplomatic aggression and aggrandizement. But though they desire to expand, they are not able to do so by conquest, because of either military incapacity or ideological distaste. Hence, if they are to satisfy the desire to expand, they must offer concessions to the rulers of constituent units, which is the essence of the federal bargain. The predisposition for those who offer the bargain is, then, that federalism is the only feasible means to accomplish a desired expansion without the use of force.

2. The Military Condition

The politicians, who accept the bargain giving up some independence for the sake of union, are willing to do so because of external military-diplomatic threat. Either they desire protection from an external threat or they desire to participate in the potential aggression of the federation. Furthermore, the desire for either protection or participation outweighs any desire they may have for independence. The predisposition is the cognizance of the pressing need for the military strength or diplomatic manoeuvrability that comes with a larger and presumably stronger government.

(Riker, 1964)

Table 2.4 shows the origin and formation of federation countries including the United State, Switzerland, Canada, Australia, Malaysia, India and Germany. According to Table 2.4, these are the intriguing conditions, and it is striking that Riker examines all instances

of the creation of a federation from 1787 through the middle 1900s to marshal supporting

evidence. Therefore, federation seems would be useless without a military threat.

However, other arguments show that social cleavage-fragmentation of ethnicity, religion,

culture, and language federations also demand for federation formation. Most of the new

federation countries used to unify multi-ethnic nations and cultural rights for the larger

ethno-linguistic group such as India and Malaysia or secure political power to support

cultural autonomy as in Nigeria and Cameroun (Burgess, 2006; Sharma, 2007; Taghavi-

Dinani, 1982; Volden, 2004).

Table 2.4
The Origin and Formation of Federation Countries

Country	Year	Origin & Formation
United States	1787	Defence and security purposes
Switzerland	1848	Mutual defence and internal security reasons
Canada	1867	Political stalemate, threat from the United States, economic imperatives, imperial unity and internal devolution
Australia	1900	British imperial unity, colonial constitutional, political evolution, socioeconomic interests and development, geographical size
Malaysia	1895	Federated Malay States - Selangor, Perak, Pahang, Negeri Sembilan request political secure by British
	1948	Federation of Malaya - Unify multi-ethnic, Sultans and Malay privilege, the economic motive
India	1949	British political influence, unify multi-ethnic nations, domestic stability, decentralized government
Germany	1949	Military and expansion conditions

Note. Adapted from Burgess (2006); Sharma (2007); Taghavi-Dinani (1982); Volden (2004).

2.4.2 Country Identification

Given that the number of federation countries was very little, it is more rational if the identification done on this system rather than unitary. Despite small in numbers, it has to recognize that identifying federation countries apparently not an easy task. In fact, Lane and Ersson (1999) noticed the difficulties as there is nothing in public international law that gives guidance about the criteria to identify and distinguish both systems. In the sense of identification of federation country, there is no consensus about the number. Watts (2008) and Cameron and Falleti (2005) trace 25 countries in the figure, while Lane and Ersson (1999) record 27 countries. For more details, several writers as shown in Table 2.5 have the list.

Based on the Table 2.5, some of the countries were identified as federation. However, there is confusion about the status of countries such as Spain (prolong practiced on federalism yet remain a unitary), Iraq and Sudan (undergoing the process of transitioning towards federation). The question is, what are the criteria that held the system's identity? From the historic explanation on the origin and formation, two indicators can be used to identify the federation countries. Firstly, expansion and military condition cause greater size of the country, and secondly, ethnic conflict is the best indication of the heterogeneous ethnic fragmentation. Therefore, the composition of the country size and population fragmentation are the criteria. Ironically, these compositions also best matched as the prototype characteristics. The federation is large and heterogeneous like the United States, while unitary is small and homogeneous such as France. The compositions of size and ethnic in each respective system can be portrayed in Figure 2.3a and Figure 2.3b.

Table 2.5

Federation Countries

Country	Forum of Federations (2011)	Encyclopedia Britannica (2010b)	Anderson (2007a)	Cameron and Falleti (2005)	Watts (1998)
Argentina	/	/	/	/	/
Australia	/	/	/	/	/
Austria	/	/	/	/	/
Belau			/		
Belgium	/	/	/	/	/
Bosnia and Herzegovina	/	/	/	/	
Brazil	/	/	/	/	/
Canada	/	/	/	/	/
Comoros	/		/	/	/
Congo			/[2]		
Ethiopia	/	/	/	/	/
Germany	/	/	/	/	/
India	/	/	/	/	/
Iraq	/[1]		/[2]		/
Malaysia	/	/	/	/	/
Mexico	/	/	/	/	/
Micronesia	/	/	/	/	
Nepal	/				
Nigeria	/	/	/	/	/
Pakistan	/		/	/	/
Russian Federation	/	/	/	/	/
South Africa	/		/	/	/
Spain	/		/	/	/
St Kitts & Nevis	/		/	/	/
Sudan	/[1]		/[2]		
Switzerland	/	/	/	/	/
United Arab Emirates	/	/	/	/	/
United States	/	/	/	/	/
Venezuela	/	/	/	/	/
Yugoslavia				/	

Notes: [1]Countries in transition to federalism, [2]post-conflict societies whose federal constitutions are not consolidated. Information obtained from Forum of Federations (2011), Encyclopedia Britannica (2010b), Anderson (2007a), Cameron and Falleti (2005) Watts (1998)

Figure 2.3a
The Federation Countries' Size and Ethnic Fraction
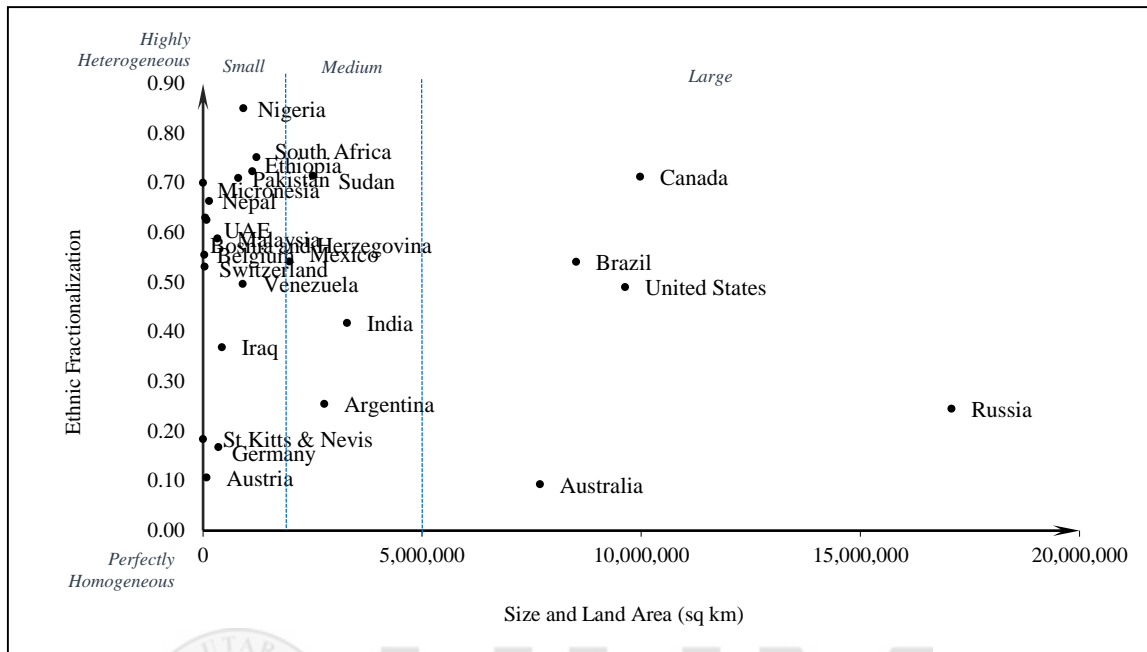
Figure 2.3b
The Unitary Countries Size and Ethnic Fraction
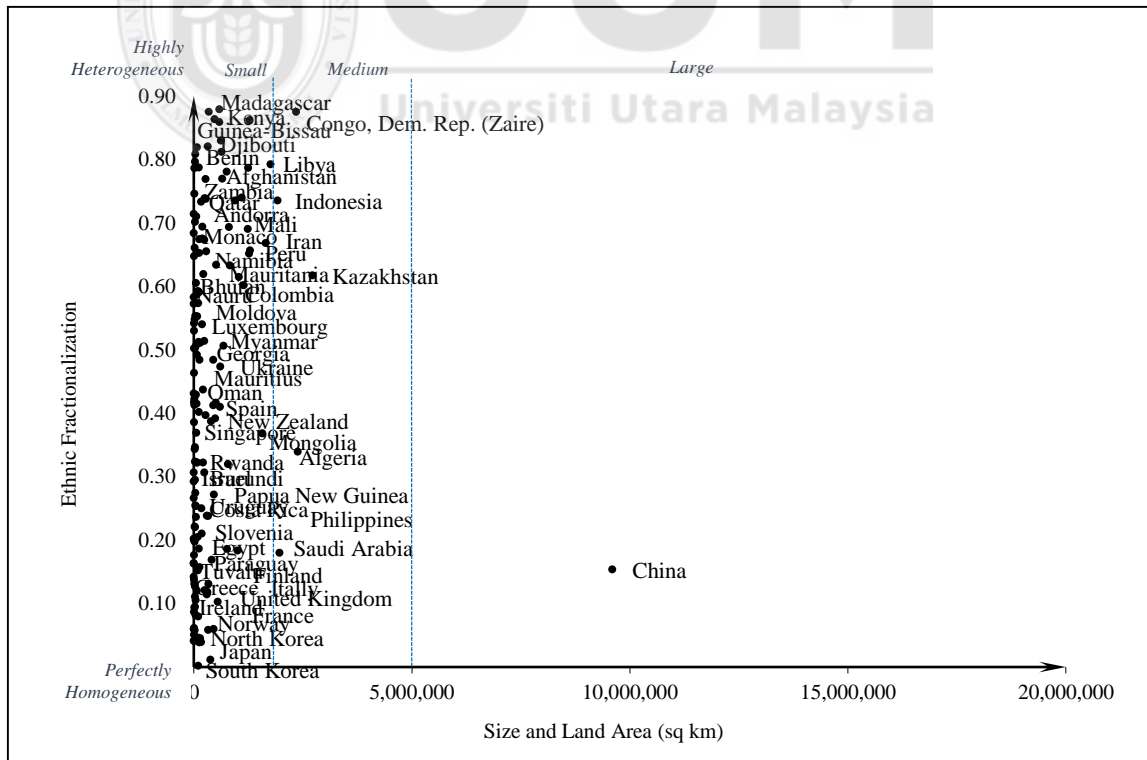
Note. Illustrated by information from CIA (2012) and Encyclopedia Britannica (2010a)

Initially, these two compositions are positively explaining the basic criteria for each system of government; nevertheless, it became less clear-cut after extended to a larger sample. As shown in Figure 2.3a and Figure 2.3b, the compositions in the cross-countries seem rather ambiguous to distinguish Russia, Canada, the United States, Brazil, Australia. India, Argentina, Sudan and Mexico are more plausibly federation criteria and not for the rest federation countries. Most of the countries have the same quasi-features or incomplete criteria, i.e., small and heterogeneous which is in the unitary, about 76 percent (for instance Uganda, Qatar, Kuwait and Luxembourg) and federation is about 68 percent (such as Germany, Malaysia, the UAE, Switzerland and Belgium). Clearly, the compositions are indistinguishable so that identification of federation from unitary remains vague. In short, to distinguish federation from unitary becomes deadlocked. By referring directly to the existing list is a bit dubious, indeed, comparing by composition analysis is rather misleading. Possibly, the traditional dichotomy approach has a way out, then this alternative will be further discussed in the next topic.

2.4.3   Definition and Principle

Generally, the unitary-federation is about the division of power between constituent units. Therefore, most of the state have forms in a multiple layering of government except single government such as Singapore, Monaco, and Vatican City. Either a unitary or federation, they are typically organized into three layers of government:

1)   a top-level government - also known as central, national, or federal government (used in federation countries);

2)   a meso-level or middle government - also known as state, provincial, regional, or county government; and

3)   a lower-level government - also known as local or municipal government, which

        may cover areas ranging from quite small to large metropolitan areas.

Subnational, non-central government, or component units are collective terms for the layers underneath the central government, i.e., levels (2) and (3) above. In certain countries, the number of subnational administrations might exceed two (see, for example, Table 2.6), depending on the country's size and socioeconomic and ethnic variety.

Table 2.6
The Numbers of Constituent Units in Selected Unitary and Federation Countries

	Single government	
	Singapore Monaco Cook Islands Vatican City	No subnational level (solely governed by the central government)
	Multi-tiered System	
U N I T A R Y	Indonesia	30 provinces, 2 special regions, 277 local governments
	Italy	20 regions, 104 provinces, 8101 municipalities
	France	26 regions, approximately 36,000 communes
	Japan	47 prefectures, 783 cities 1,004 towns and villages
	New Zealand	16 regions, 86 local governments
	Norway	18 counties, 300 local governments, 431 municipalities
	Peru	25 regional, 194 provincial, 1,836 district councils
	Philippines	13 regions, 76 provinces ,541 municipalities
	Poland	16 districts, 379 counties, 2,478 communes
	South Korea	6 metropolitan cities, 89 provinces and 230 local governments
	Sweden	20 county councils, 290 municipalities
	Ukraine	2 cities, 24 oblast, 1 republic, 488 districts, 175 municipalities
	Denmark	5 regions, 98 municipalities
	Netherland	12 provinces, 368 communal, 443 municipalities

	Multi-tiered System	
F E D E R A T I O N	Argentina	23 provinces, 1 autonomous city, 2,221 municipalities
	Australia	8 states, approximately 900 local governments
	Austria	8 states, 2,358 municipalities
	Belgium	9 provinces, 589 communes
	Brazil	26 states and 1 federal district
	Canada	10 provinces, 3 territorial, 5000 local governments
	Ethiopia	9 states, 2 self-governing administrations
	Germany	16 *Länder,* 15,000 municipalities
	India	28 states, 2 union territories
	Iraq	18 provinces (governorates), 1 region
	Malaysia	13 states, 118 district councils, 21 municipal councils
	Mexico	31 states
	Nigeria	36 states
	Pakistan	4 provinces, 1 territory and 1 capital territory
	Russia	46 provinces, 21 republics, 4 autonomous okrugs, 9 krays, 2 federal cities, 1 autonomous oblast
	South Africa	9 provinces
	Sudan	17 states
	Switzerland	26 cantons, 2,800 communes
	UAE	7 emirates
	United States	50 states, 89,476 local governments
	Venezuela	24 states, 335 local governments

Note. Modified from CIA (2012) and International Monetary Fund (1972-2011).

Table 2.6 at a first glance, shows no difference between the systems, thus definition and principal basis (traditional approach) may be useful to dichotomize unitary form federation. The next discussion will distinguish both systems in terms of distribution of power, nature of constitution, legislature, executive, judiciary, and the nature of citizen relationship.

By and large, unitary constantly referred as a sovereign in which legal power is located in the top tier of government as divisions and decision maker. Powerful central government and very weak regional and local jurisdictions generate the distribution of power between level governments fully guaranteed as centralized. Based on the principle of geographical

centralization, political power may be delegated through devolution to constituent polities by statute, yet the central government remains supreme and may abrogate the acts of devolved governments or curtail their powers for the national unity reasons. In other words, the central government may create or abolish constituent units as it sees fit. The advantage of a unitary constitution is that it provides for a single system for making and administering government policy throughout the country, avoiding duplication of personnel, time and expenses, and excessive influence by purely local interests. In terms of the concentration of power, unicameral legislatures are more likely found in unitary system which all the powers of the legislative branch are contained within the single chamber (Kreppel, 2014). For the nature of citizen relationship, they will connect directly to the central government as regional and local jurisdiction exists only as political, economic, cultural, and administrative units. Thus, constituent units can exercise only that power and responsibilities granted by central government (Baldi, 1999; Bowman & Kearney, 1996). However, such policy making and administration may result in inadequate attention by the government to local needs and aspirations.

Federation is derived from the Latin term *'foedus'* (describe cooperative, contractual agreements between states), or covenant (imply mutuality agreed constitutional provisions of the country concerned to serve any purpose, both parties must fulfil some obligation to one another (Akindele & Olaopa, 2003; Bowman & Kearney, 1996; Rodden, 2003). Generally, federation is construed as a particular pattern of political relationship between the central and constituent governments based on the territorial distribution of power and premised on the principle of shared sovereignty, which is not subordinate but coordinate (Akindele & Olaopa, 2003; Wheare, 1963). That means each government is driven and

granted by a written federal constitution, which is supreme, so that the members of jurisdictions can exercise those powers and authorities. In other word, federation is a means of *'self-rule plus shared rule'* (Elazar, 1987), no matter how certain powers shared by the central and constituent governments at any particular time, the authority who took part in exercising them cannot be taken away from either without their mutual consent. Each level of government will rule the same people in the same land by its autonomous spheres of authority guaranteed and both are independent of one another (Baldi, 1999; Burgess, 1993, 2006; Elazar, 1997; Lijphart, 2012).

From many perspective (Burgess, 1993, 2006; King, 1982, 1993; Taghavi-Dinani, 1982; Verney, 1995; Watts, 1998, 1999; Wheare, 1963) of definitions, the following structural features inferred to delineate a federation:

i.   *Geopolitical division*

The polity's territory is divided up into mutually exclusive states or provinces or *länder* or canton. The existence of each state is constitutionally recognized and may not be unilaterally abolished.

ii.   *Independence*

The states and federal (or central) government are independent of one another. In general, this independence is established constitutionally through electoral independence, where each government is held accountable to its constituents, although non-democratic forms of independence may be available.

iii.   *Direct Governance*

Authority is shared between the state and the national governments, which each govern their citizens directly, so that each citizen is governed by two authorities. Each level of

government is sovereign in at least one policy realm. This policy sovereignty is constitutionally declared.

In the legislation spectrum, federation constitution is not unilateral and rigid for amendment and significant in the allocation of power, which can be functionally as (a) distribution of law-making competences, (b) residual powers, (c) criteria for the allocation of competences (jurisdictional/functional), and (d) territorial diffusion (symmetry/ asymmetry) (Baldi, 1999). Through the bicameral, this system of power is the practice of having two legislative or parliamentary chambers. Thus, a bicameral parliament or legislature is represent the Second Chamber which can be operating as (a) the extension of the territorial representation within the Chamber (exclusive/partial), (b) the policy scope (in relation to the First Chamber), (c) degree of over representation (number of representatives in relation to the size of the sub-units) and (d) method of selection of representatives (direct or indirect election by citizens; appointment by subnational executives) (Baldi, 1999).

The constituent units (states, regions, provinces, *länder* or canton) supreme in the powers assigned to it which can act directly on the citizen within its jurisdiction without permission from any other authority. Every member of jurisdiction is constitutionally entrenched and fully guaranteed as non-centralized. By forming on territorially based at least two-level arrangements, the federation system must attempt to deal with diversities either by conferring the power over some of these pervasive diversities on the state or by giving the local government units a permanent voice or function to promote decentralized decision making. Therefore, it is conducive to greater freedom of choice, political

participation, innovation, accountability and to make the citizens feel the impact or presence of the subnational government as well. Such a system, however, the federation is open to a great deal of regional conflicts, duplication and confusion and may not be able to secure national unity.

Based on the description of definitions and principles above, Table 2.7 shows the dichotomy of both models. Having discussed the dichotomy of both systems above, however there is no consensus on a universal and scientific classification in the practical implementation.

Table 2.7
The Unitary and Federation System Dichotomy

	System of Government	
	Unitary	*Federation*
Distribution of power	Centralized	Non centralized
Nature of constitution	Flexible	Rigid
Nature of legislature	Unicameral	Bicameral
Nature of citizen relationship	Central government	Central & Subnational

Note. Modified from Akindele and Olaopa (2003); Baldi (1999); Bowman and Kearney (1996); Kavalski and Zolkos (2008) and Rodden (2003).

2.5   Towards Regionalization and Decentralisation

In the late twentieth century, regionalization became popular in most of the member states of the European Union (EU) while decentralisation has evolved as a worldwide mega trend.   Both trends towards regionalization and decentralisation are responsible in strengthening meso-level as power shifted (from central government) and their capacities or function growth to broader societal.   After several series of attempt, implementation

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and enhancement, new modern institutional arrangements having taken place and a great variety of territorial governance develop till the difference of unitary-federation became less clear cut. To understand these phenomena, this sub-topic will explore the ways of new territory arrangement, established and implemented through regionalization and decentralisation.

2.5.1   Regionalization

The region, a term originates from the Latin word *regio.* In a simple way it is understood as a geographical space yet brings two different usages. Firstly, the term represents a distinctive zone integrated as regional in international level, also called as supra-national government (above the national government). The national coalition makes up the international cooperation in the political, economic, defence, environmental, policy, cultural and religious are shaped in confederations form such as the European Union (EU), the North American Free Trade Association (NAFTA) and the Association of South East Asian Nations (ASEAN), whereby linked by geography, history, or economic features.

In the second usage of the term, it refers to a territory that is located within a country, that is the subnational entity (under the national level) or identified as meso-level. Usually, the region is smaller than a state and larger than a locality, or a small province. In this sense, different kinds of regions may be distinguished in language, religion or customs and political regions, which usually possess some form of elected regional government; administrative regions, which are geographical entities created for the purpose of administering. The region is also related to the concept with the regionalism and regionalization, similar to the term federal and federalism. Regionalism is an ideology

and political movement seeks to politicize the territorial predicaments of its region with the aim of establishing, protecting or furthering regional interests'. On the other hand, regionalization is a process of top-down transfer from central to those regions of various kinds in administrative, economic and political responsibilities.

There has been some argument about the waves of regionalization. According to Schrijver (2006), in the 1970s and early 1980s, the regionalization process was mainly inspired by consideration of European integration since the mid-1980s have stressed the usefulness of a regional government in both the European and national contexts. Whereas, Loughlin (2014) perceives the wave between 1953 and 1973 as the period of economic expansion and regional policy, i.e., a part of macroeconomic planning and the territorial dimension of the welfare state. Between 1973 and the early 1980s 'rolling back the state' was the adage in these times of economic recession, and regionalization become included in efforts to improve efficiency. There many reasons given in favour of implementing regionalization. Briefly, the impact or push factors of emergence a regional government as follows:

i. *Rational Functional*

Regional formed to execute the tasks effectively and efficiently on public service provision. During the twentieth century, the expansion activities and responsibilities increase by the continuous process of urbanization and growth of metropolitan areas causing inadequate local government, furthermore the existing fragmented local structure made it hard.

ii. *Ideological Motivations*

Regionalization as a form of decentralisation as a way protecting democracy as opposed to fascist or totalitarian centralization. A strong sub-state government can be as an instrument to defend the equality of the rural and peripheral population with those living in urban centres.

iii. *Sectional Interest*

Regionalization creation supported by politicians and political parties, also public bureaucrats as it may benefit from the enlargement of regional level.

iv. *Centre Advantages*

Advantages for budget cuts by central government when the responsibilities and taxation capacities transferred to the regional level. On the other word, less expenditure allocates at the central level as they no longer directly responsible for previous tasks.

v. *Resolve Ethno-Territorial Conflicts*

The claim for autonomy by these regionalists, through the implementation of a policy of regionalization, is seen as an attractive way to resolve ethno-territorial conflicts, weakening protests and satisfying the majority in the region.

vi. *Driven by Economic Globalization*

The role of regions was emerging as a fundamental basis of economic and social life after mass production space. Globalization economic by transnational process give advantages for regional for economic integration, rapid industrialization and indicators of growth.

(Evered, 2005; Loughlin, 1996; Schrijver, 2006)

Regional governments are elected by universal suffrage in the most advanced federal countries, such as Canada, the United States, Germany, Australia, Belgium, and

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Switzerland. In these federation countries, regional governments are constituted as autonomous political entities with constitutionally protected power and the right to participate in national politics through a second legislative chamber at the national level or through mechanisms of institutionalised cooperation between governments. But not in unitary countries, where the region's issue is less clear-cut.

Basically, regional is just an administrative institution without authority given by central. However, it is contrast with respect to Italy, Spain, France and the United Kingdom; regional has devised a wide variety of arrangements in the way in organized meso space. In Italy, regional government (established under the 1948 Constitution) is formed in political asymmetry and diversity approach as their regional entity divided into 'special regions' and 'ordinary regions'. The five 'special regions' (Valle d'Aosta, Trentino Alto Adige, Friuli-Venezia Giulia, Sicily and Sardinia) were given legislative autonomy on primary revenue sources and wider expenditure assignment also determined its own additional functions through constitutional laws unlike fifteen 'ordinary regions' (Emiliani, Lugaresi, & Ruggiero, 1997).

Spain, to some extent, is influenced by the Italian model distinguished in the 1978 constitution between special regions i.e., three 'historical nationalities' (Catalonia, Galicia and the Basque Country) were granted a simplified 'fast-track' process while the rest of the region had to follow a specific set of requirements. Thus, the process was purposely intended to be asymmetrical in nature (Loughlin, 1996, 2014). In France, the regions were set up in 1972 after the economic between regions growing disparities and the international economic recession give impact to the state. Nonetheless, the regional

established albeit with limited powers, in fact the central government has been reluctant to transfer some political and administrative powers to the regions. Until 1982, the region had been reformed by decentralisation and the law did transform the nature of the regional councils in three main ways. First, the region would no longer be administratively and financially dependent on the state. Second, executive power was transferred from both the regional and departmental prefects to the elected chairpersons of the department and regional council. Third, the region become full-fledged local authorities with corresponding upgrading in their legal and political status. Finally, the strength and legitimacy of the new regional councils was enhanced (Douence, 1995).

In the United Kingdom, state formed a high degree of administrative diversity which has political asymmetrical setting. For subnational organizations, regional has been established in Scotland, Northern Ireland, and Wales. In 1998, certain areas of central government have been devolved to democratically accountable governments in Scotland, Wales and Northern Ireland. By contrast, England was left un-devolved as there are no regions formed.

The variety of regionalization governance that exists corresponds widely from country to country which does not coincide with each other. It has seen the relations between regional and central government within system of government is a complex interplay of centrifugal and centripetal pressure. In summary, although France and Italy established asymmetric regionalization (special autonomy in specific territory), overall, the regions are given limited powers also without great autonomy, created through the process of deconcentration and existing alongside more traditional administration units. In contrast,

the United Kingdom and Spain prefer power sharing to regions through devolution has a quasi-federation look. Hence, such developments have made it more difficult to clearly distinguish the pattern of territorial management and power-sharing arrangement that exists within some unitary *vs.* federation system.

2.5.2 Decentralisation

The decentralisation setting has been established hastily over the past quarter of a century in tandem with the evolution of positions and functions of multitier government. Affected by ineffective and inefficient governance, inadequate social and economic growth, macroeconomic instability (Bird & Vaillancourt, 1999; Cheema & Rondinelli, 2007) and the feebleness of central authority on public services (Ebel & Yilmaz, 2002), most developing and transition economies in both federation and unitary systems are turning to various forms of decentralisation. Decentralisation seems to be trendy and is seen as a very promising way of addressing issues and using existing potential by many nations. In this case, decentralisation seems to enhance accessibility, local responsibility, accountability, and the efficacy of government service delivery; it is less costly and likely to increase welfare gains and equality. Given its benefits and effects, virtually all nations favour decentralisation. As a result, it's unsurprising that decentralisation has a growing theoretical literature.

Primarily, there are four dimensions of decentralisation those are administrative, political, fiscal and market decentralisation. The first three dimensions exist in different perspectives or scope of the multilayer government function or combination within sectors. While market decentralisation does not imply a transfer of power or

responsibilities to lower levels of government but to private companies. Therefore, it is not relevant for this study and left aside in this paper. So, three dimensions will discuss further in theoretical subtopic.

Drawing distinctions between these various concepts is useful for highlighting the dimensions for successful decentralisation and the need for coordination among them. Nevertheless, there is a clear overlapping in defining any of these terms and the precise definitions are not as important as the need for a comprehensive approach (World Bank, 2008).

2.5.2.1 Theory of Decentralisation

In general, a theoretical viewpoint offers a comprehensive explanation or emerges a generalisation with the intent of comprehending a phenomenon; it is also essential to direct empirical study and to interpret the results (Creswell, 2003). Without theory, research would be nothing more than a collection of data. Given to the study's focused on interactions between layers of government, the theoretical lensed is influenced by decentralisation theory.

Decentralisation is often viewed as a transfer of authorities and responsibilities for planning, managing, and allocating resources from the central government to constituent units with total autonomy over society and economy imagined as fixed (Cheema & Rondinelli, 2007; Work, 2002). Bahl (2006) referred decentralisation as the empowerment of people by the empowerment of their local governments. While Ebel and Yilmaz (2002) perceived that subnational government has decision making power in

politics, administrative and fiscal that affect their citizens' life. Decentralisation is closely linked to the concept of subsidiary which proposes functions (or tasks) devolved to the lowest level of social order that is capable of completing them. From the organizational point of view, it is the restructuring of authority so that there is a system of co-responsibility between institutions of governance at the central, regional and local levels according to the principle of subsidiary, thus increasing the overall quality and effectiveness of the system of governance, while increasing the authority and capabilities of subnational levels (United Nations Development Programme, 2000). In contrast, the centralization in the prevailing definition is a structure decision making power concentrated in the hands of central government bureaucrats.

The administrative power is the most difficult to define and assess as it is a very broad concept. Generally, *administrative decentralisation* is often simultaneous with civil service reform. It refers to the extent of autonomy of non-central government entities relative to central control. Administrative decentralisation seeks to redistribute authority, transferring decision-making, providing financial resources, responsible for the delivery of a select number of public services and among different levels of government. In short, administrative decentralisation is the transfer of responsibility for the planning, financing and management of certain public functions. This responsibility is transferred from the central government and its agencies to other units of government agencies, levels of government, semi-autonomous public authorities or corporations, or area-wide, regional or functional authorities (Regmi, Naidoo, Greer, & Pilkington, 2010; Work, 2002).

Political decentralisation seeks to provide political power to subnational governments to implement certain political functions as they are better able to serve the local citizens. In the diversity of society preferences and interests, state governments/regional presumed more efficient in the decision-making process since have better access of information than national political authorities. By analogy, political decentralisation is actually promoting democratization by giving citizens, or their representatives, more influence in the formulation and implementation of policies. The concept also implies that the selection of representatives from local electoral jurisdictions allows citizens to know their political representatives better and allows elected officials to improve their knowledge of the needs and desires of their constituents. To a greater extent, political decentralisation often requires a combination of statutory reforms, the development of pluralistic political parties, the strengthening of legislatures and encouragement of effective public interest group, because the description of political decentralisation covers a wide range, other forms of decentralisation often entail a degree of political decentralisation as well. Simultaneously, political decentralisation necessitates universal participation and new approaches to community institutions and social capital (Regmi et al., 2010; Work, 2002).

There is an overlapping between administrative and political decentralisation which political decentralisation implicitly assumes an extensive form of administrative decentralisation. However, it is not necessary that weak forms of administrative decentralisation imply political decentralisation. Both dimensions administrative and politics is consisting of three major forms, i.e., devolution, deconcentration, and delegation (see Figure 2.4).

Figure 2.4
The Dimensions and Forms of Decentralisation from Central to Subnational Government
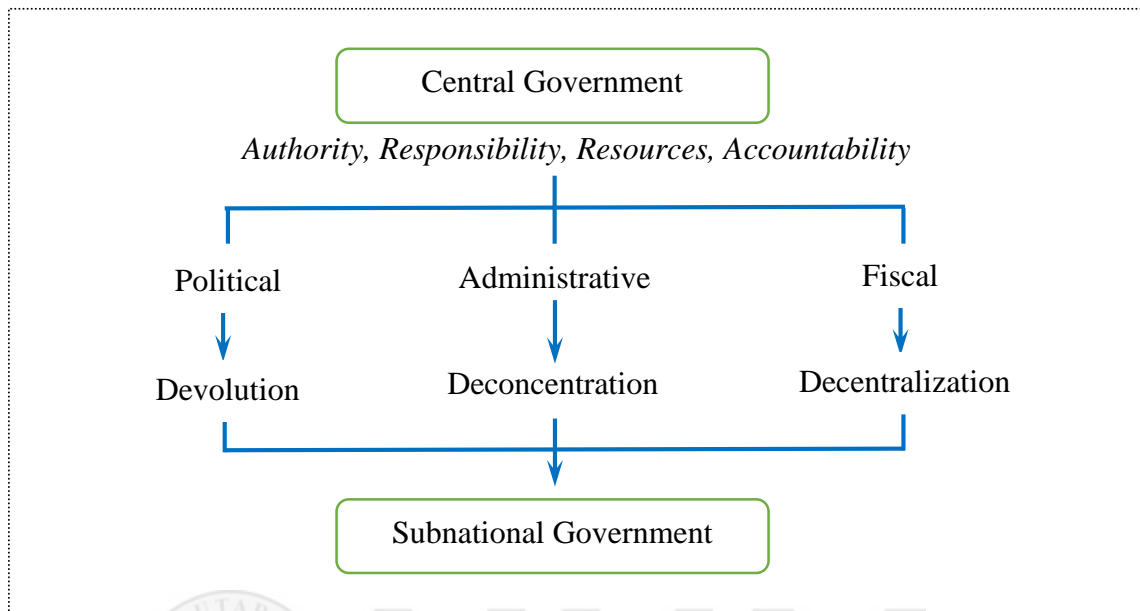
Note. Modified from Regmi et al. (2010)

Devolution is considered as a form of political decentralisation; while deconcentration and delegation are two major forms of administrative decentralisation. Devolution refers to the full transfer of responsibility, decision-making, resources and revenue generation to a local level public authority that is autonomous and fully independent of the devolving authority. Units that are devolved are usually recognized as independent legal entities and are ideally elected (although not necessarily). *Deconcentration,* however, is often considered to be the weakest form of decentralisation, since it does not involve any transfer of real power to local governments. *Delegation* is somewhat perceived as a more extensive form of decentralisation, while devolution represents an administrative decentralisation that underlies most political decentralisation (Regmi et al., 2010).

In a diverse society, ***fiscal decentralisation*** represents the best works by the government when it is closer to the people (Stigler, 1957) beside to pursue the agenda mandated by voter. Fiscal decentralisation is the most comprehensive and possibly a traceable degree since it referring to the resource allocation to subnational government and directly linked to budgetary practices. Currently, the Government Finance Statistics (GFS) by the International Monetary Finance (IMF) has consistent definitions over time and the only existing source of data for worldwide cross-country analysis of fiscal decentralisation and public finance. The measurement of decentralisations being most commonly used in the literature is decentralisation ratios calculated for government expenditure and revenues respectively (Lijphart, 1984; Yao, 2006). Thus, on the expenditure indicator, decentralisation is measured as a ratio of state-local government spending to total general government spending and a ratio of state-local government revenue to the general government revenue (Ebel & Yilmaz, 2001; Oates, 2006; Yao, 2006).

According to Work (2002), fiscal decentralisation implemented in 31 unitary and federation countries in the ratio 58:42 respectively. The average sub national share of expenditures is 38 percent for federal countries and 22 percent of unitary countries. Figure 2.5a and 2.5b presents fiscal decentralisation degree in selected unitary and federation countries in the year 2008. As shown in the Figures 2.5a and 2.5b, the high-income countries such as Canada, Switzerland, the United States (federation) and Denmark (unitary) have the highest degree of decentralisation. Whereas the developing federation countries (Malaysia, Mexico, Belgium) and unitary (Thailand, Indonesia, Philippines, Chile) are more fiscally centralized in imposition.

Figure 2.5a
Fiscal Decentralisation Degree in Unitary Countries
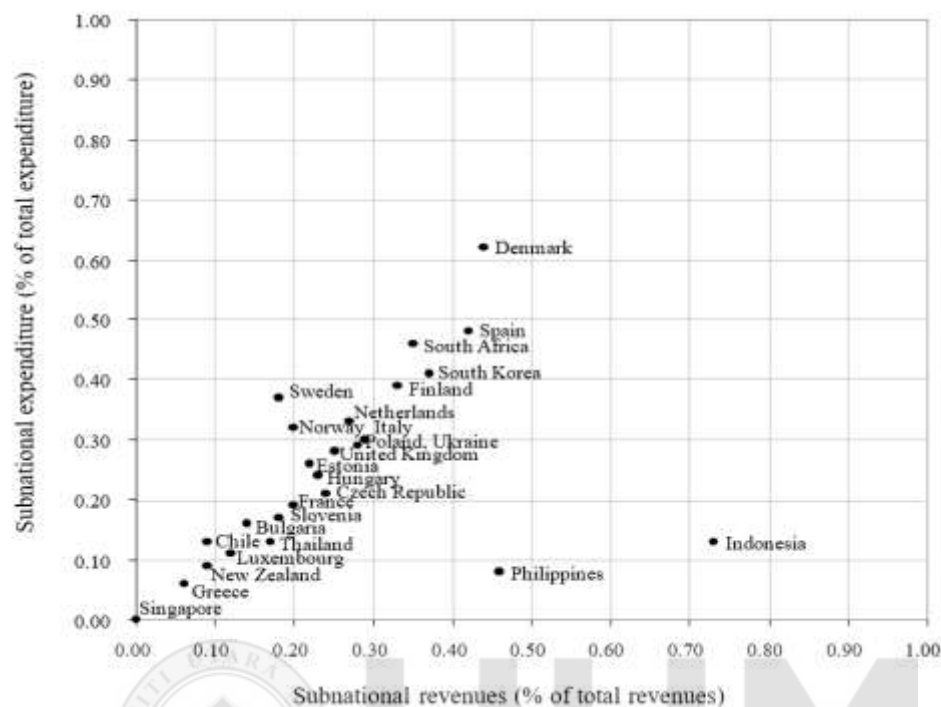
Figure 2.5b
Fiscal Decentralisation Degree in Federation Countries
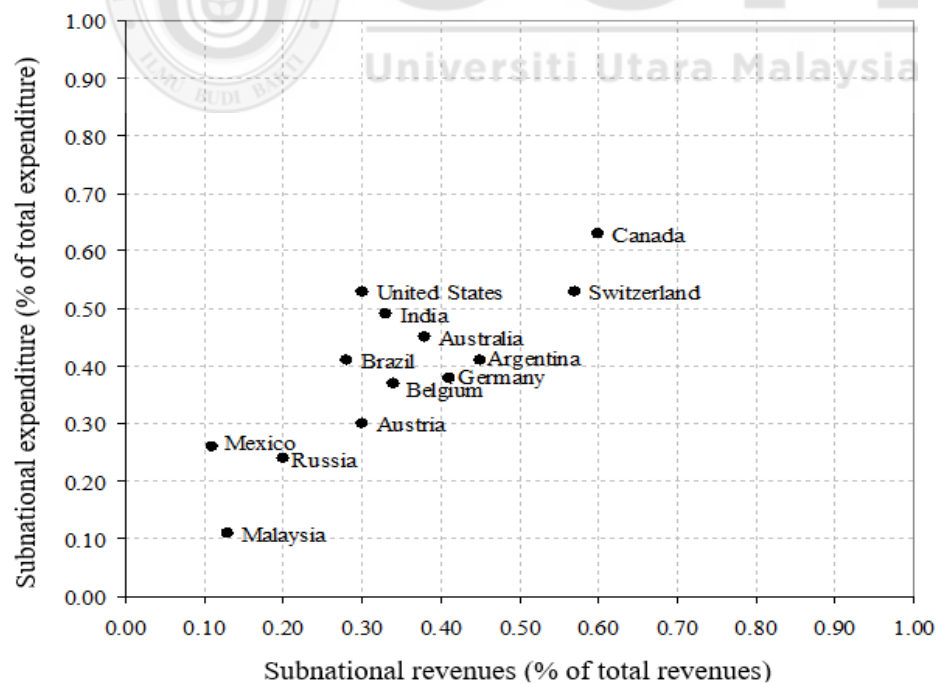
Note. Illustrated from the data of International Monetary Fund; Government Finance Statistics Yearbook, 2008.

Table 2.8 and 2.9 presents the distribution of fiscal assignment by level of government in selected unitary and federation countries. As indicated in Table 2.8, a wide variety of expenditure patterns can be observed across the selected countries. As Decentralisation Theorem and Tiebout Model promise, a partial solution in effective expenditure allocation, each industrial federation-unitary country is vesting the central government (with power) in the position of national defence, other national public goods and services and economic affairs. In a number of circumstances, entire industrial unitary countries centralized in most expenditure except environmental protection, housing and community amenities and recreation, culture and religion. Whereas industrial federations countries show variety in expenditure assignment.

Based on the observed wide variety of expenditure patterns, it reflects variety social preferences among countries, coupled with little theoretical guidance regarding the cost and benefits of decentralisation. In the most decentralized countries such Canada, Switzerland and Australia, expenditure patterns are more flexible and often able to more closely react to what local residents want particularly for mixed goods and services like social protection, education and health.

Table 2.8

Distribution of Expenditure among Different Level of Government in the Selected Countries

Country and Year	General Public Services			Defense			Public Order and Safety			Economic Affairs			Environmental Protection		
	CG	SG	LG	CG	SG	LG	CG	SG	LG	CG	SG	LG	CG	SG	LG
Federation															
Germany (2007) [1]	50	38	13	100	0	0	9	70	21	42	35	23	4	14	83
Canada (2007) [1]	59	32	9	100	0	0	31	35	33	27	47	25	25	19	56
Australia (2007)	78	14	8	100	0	0	17	80	3	35	52	13	21	39	40
Switzerland (2006)	55	24	21	91	4	4	9	66	25	45	40	15	3	16	81
Unitary															
Norway (2007) [1]	79	…	21	100	…	0	84	…	16	78	…	22	21	…	79
France (2007) [1]	75	…	25	100	…	0	73	…	27	68	…	32	10	…	90
Italy (2007) [1]	79	…	21	100	…	0	88	…	12	67	…	33	14	…	86
Denmark (2007)	90	…	10	99	…	1	91	…	9	60	…	40	49	…	51

Country and Year	Housing & Community Amenities			Health			Recreation, Culture and Religion			Education			Social Protection		
	CG	SG	LG	CG	SG	LG	CG	SG	LG	CG	SG	LG	CG	SG	LG
Federation															
Germany (2007) [1]	22	31	47	95	2	2	6	30	63	4	69	27	75	14	11
Canada (2007) [1]	19	26	55	19	80	1	27	21	52	4	62	34	67	30	3
Australia (2007)	16	54	29	51	49	0	27	32	41	40	59	0	89	10	1
Switzerland (2006)	24	23	53	1	59	40	10	30	60	14	55	31	71	19	10
Unitary															
Norway (2007) [1]	7	…	93	73	…	27	39	…	61	34	…	66	80	…	20
France (2007) [1]	15	…	85	70	…	30	26	…	74	70	…	30	71	…	29
Italy (2007) [1]	22	…	78	30	…	70	45	…	55	75	…	25	87	…	13
Denmark (2007)	53	…	47	1	…	99	46	…	54	54	…	46	43	…	57

Notes: [1] In billions of currencies. CG - Central Government, SG - State Government, LG - Local Government

Source: International Monetary Fund (2008)

Table 2.9

Distribution of Tax Revenue among Different Level of Government in the Selected Countries

Country and Year	Taxes															
	Total Tax				Income tax				Property tax				Goods & services tax			
	General Gov.	Central Gov.	State Gov.	Local Gov.	General Gov.	Central Gov.	State Gov.	Local Gov.	General Gov.	Central Gov.	State Gov.	Local Gov.	General Gov.	Central Gov.	State Gov.	Local Gov.
Industrialized countries																
Federation																
Germany (2007) [1]	580.5	49.4	37.3	13.3	303.4	40.9	38.3	20.8	20.6	-	54.2	45.8	256.5	63.5	34.7	1.7
Canada (2007) [1]	453.0	48.0	42.2	9.8	266.1	62.8	37.2	-	51.7	-	19.2	80.8	119.5	39.2	60.1	0.7
Australia (2007)	319,775	81.9	15.3	2.8	189,373	100.0	-	-	29,234	0.1	67.8	32.1	81,238	82.0	18.1	-
Switzerland (2006)	110,466	46.3	32.3	21.4	65,804	27.6	42.1	30.3	11,549	19.5	49.0	31.5	32,086	92.6	7.3	0.2
Unitary																
Norway (2007) [1]	781.7	84.3	…	15.7	471.0	77.1	…	22.9	27.0	52.3	…	47.7	280.7	99.2	…	0.8
France (2007) [1]	506.4	81.6	…	18.4	197.9	100.0	…	-	86.1	20.5	…	79.5	203.8	91.3	…	8.7
Italy (2007) [1]	459.9	77.7	…	22.4	227.4	90.2	…	9.9	12.4	1.9	…	98.1	190.9	65.2	…	34.8
Denmark (2007)	810,533	74.2	…	25.8	498,141	61.9	…	38.1	31,558	39.9	…	60.1	276,750	99.9	…	0.1
Developing countries																
Federation																
Argentina (2004)	102,497	62.0	37.8	0.2	23,152	66.4	33.6	-	11,810	61.9	38.1	-	49,079	48.4	51.6	-
Malaysia (2003)	73,207	94.9	1.8	3.3	44,390	100.0	-	-	1,367	15.4	84.6	-	20,201	99.3	0.7	-
Mauritius (2007)	39,177	98.4	0.0	1.6	7,608	100.0	-	-	3,086	90.7	-	9.3	21,853	98.5	0.0	1.5
Bolivia (2007)	25,258	69.2	9.7	21.1	3,170	81.5	-	18.5	2,978	56.5	-	43.5	17,177	67.2	14.3	18.5
Unitary																
Chile (2007) [1]	19.5	94.5	…	5.5	9.4	100.0	…	-	0.48	-	…	100.0	8.7	93.2	…	6.8
Hungary (2007) [1]	6.6	83.0	…	17.0	2.5	80.4	…	19.6	0.21	37.7	…	62.3	3.8	86.8	…	13.2
Costa Rica (2007) [1]	2.1	96.6	…	3.4	0.5	100.0	…	-	0.11	78.2	…	21.8	1.3	96.7	…	3.3
Thailand (2007) [1]	1.5	93.3	…	6.7	0.6	100.0	…	-	0.02	-	…	100.0	0.7	89.4	…	10.6

Notes: [1] In billions of currencies. Data: in million/billion (general government) and in percent (central, and local government)

Source: Calculated form International Monetary Fund (2008)

Table 2.9 illustrates a striking feature of taxing composition among jurisdiction revealed significant variation taxation system across countries, diversified in both system unitary and federation and the models of federalism itself. In Canada, the power-separation system or dual model of federation displaying the potential to avoid welfare-inefficient outcomes, despite its' lack of joint decision making might be result in different handling on taxation policy. Each territorial government decided unilaterally on its' tax strategy. According to the Canadian constitution, the central government has unlimited taxing powers while the state is limited to levying direct taxes. The personal income tax and the corporate tax predominantly imposed and collected by the central government but remitted in part to subnational government. With respect to sales taxes, both central and state governments levy their own taxes independently which is central sales taxes is limited to only a few products while state sales taxes applied to most consumer good (before 1991). However, in 1991, the central government replaced its old manufacturer sales tax with a broader tax base i.e., the Goods and Services Tax (GST) for harmonized their taxes along the same lines as the tax collection agreements (Braun, Bullinnger & Wälti, 2002; Krelove, Stotsky & Vehron, 1997). According to Table 2.9, GST accounted for central, state and local level in percent 39.2, 60.1 and 0.7 respectively.

In Germany, total revenue distribution accounted for central and subnational government in ration 49.5:50.6 which is obviously high decentralized in tax assignment. According to Article 106(3), the *Bundesrat* (central) and *Länder* (state) each receive 42.5 percent of the proceeds, with the remaining 15 percent accruing to local government, while the corporate income tax is constitutionally mandated to be shared equally between the central and *Länder*. The power sharing system

(cooperative model) in Germany presented the prominent feature of revenue rising arrangement is constitutional-mandated sharing of tax. Most of the important revenue sources including the wage and assessed income taxes, the corporation income tax, and general sales or value added tax (VAT), make up about three-quarters of total tax revenue and the proceeds of all are shared. The ratio is reviewed every two years and adjusted whenever necessary in light of changing financial needs which providing an important element of flexibility in fiscal arrangement (Watts & Hobson, 2000).

In contrast, Malaysia has been centralizing on taxing pattern. The subnational government has delegated much responsibility for legislating, administrating, and collecting taxes to the central government. The Table 2.9 clearly depicted that in 2003 the central government was responsible for 94.9 percent of the total tax collection, whereas states and local government accounted in turn only for 1.8 percent and 3.3 percent of the total yield. This concentration feature is explained by the fact that the central exclusively have access to levying and collecting 100 percent direct taxes including the integrated income taxes, property and capital gain; beside adding up to indirect taxes, i.e., international trade, production and consumption; and others taxes including motor vehicle taxes, stamp duties and *'sin taxes'* (betting, gambling, lotteries and casino).

In summary, decentralisation has to be a flexible process, allowing the central-local dynamics to evolve and taking into consideration potential instability of the political framework. Since decentralisation is heavily dependent on political will of the central government and consensus of the population, constant changes in the political framework can hinder the building of support for decentralisation. The most obvious,

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decentralisation is a challenging complex process, that requires patience and dedication on the part of all the stakeholders, but it also promises to be a mechanism for improved democratic governance and sustainable human development.

2.5.2.2   Allocation, Distribution and Stabilization

The debate on decentralisation is closely linked to fiscal arrangements between levels of government. Countries with a layer-based government structure, whether unitary or federated, have macroeconomic goals for stabilization, distribution, and allocation. This Musgrave's trilogy of public functions, also called fiscal federalism, lays down a general normative framework for the assignment of functions to different levels of government (Tiebout, 1956; Musgrave, 1959; Oates, 1972, 1977, 1999). At the most general level, Oates, Musgrave, and Tiebout analyse centralised and decentralised governance based on the capacity of multi-level governments to perform these three fiscal functions. According to Oates (1999), the functions of macroeconomic stabilisation and supporting the poor through redistribution of income should be centralised and carried out by the central government. Decentralization, on the other hand, is a better way to get public goods and services to local citizens as local governments know the needs best (Musgrave, 1999).

The stabilisation function is the primary function of the central government as they freely adopt monetary and fiscal policies to control the size of the money supply, impose taxes and determine spending, address non-monetary debt issues, and reduce unemployment. According to Oates (1968), the state government is unable to effectively carry out its stabilisation function for a number of reasons. First, if state

governments control monetary policy and the money supply, money creation will expand to meet their budget deficit while inflation rates continue to increase.

Second, assuming that localities are small and highly open economically, they have a high average and marginal propensity to import out of income. Any attempt at an active fiscal policy would thus be rendered ineffective. The relatively high marginal propensity to import implies that injections of new spending into the local economy will rapidly dissipate themselves into flows of spending in other areas. As a result, the expenditure multiplier (reciprocal of the sum of marginal propensity to save and marginal propensity to import) will tend to be quite small (Oates, 1977).

Third, debt-financed expenditure by local authorities would result in 'external debt', whereby the region would have repayment obligations to people in other regions within the single currency area, resulting in net real income outflows. When debt-financed expenditures occur at the national level, however, most debt-holders are located within the borders of the currency area, thus avoiding this problem (Oates, 1968, 1977).

Fourth, subnational government inefficiencies reduce unemployment owing to stability functions under their operational. In terms of employment, the state government subnational can attract workers into the region by increasing funding at a time of physical deflation. Consequently, local employment levels will increase. However, this action also attracts the arrival of labour from other areas, and finally, unemployment in the area continues to widen (Oates, 1968, 1977). This means the financial burden of the state government will contribute to inefficiency while state

spending will spill over into other states. Clearly, such programmes on a local scale are not suitable to remedy unemployment. Hence, the national stabilisation function would produce an effective programme rather than the capacity of local government bodies, which is limited.

Similar to redistribution function, it must be centralised under central government control, as Ebel and Yilmaz (2002) and Oates (1968) assert that if an independent local entity is working to achieve income redistribution objectives, they are likely to run into real trouble. First, if a local community has specific preferences on equity issues, it is better to leave redistribution to that community. However, even if these preferences are adequately registered in local elections, there is always an incentive for those households that will be worse off as a result of the chosen (re)distributional policy to leave the jurisdiction. There will be an incentive for households in other jurisdictions that are likely to profit from the chosen policy to migrate into the community involved. If these movements of households indeed occur, that will render state and local (re)distributional policy ineffective.

Second, if the sub-central government manages the equity of income distribution through tax-subsidy policy (imposing income tax on the rich, then subsidies will be given to the poor), these efforts result in the widest gap between state income per capita, yet by the nature of their business, it is impossible to thwart free rider mobility within local boundaries (Burkhead & Miner, 1971). Furthermore, social justice will be easier to achieve if the function is centralised by the highest level of government. Through progressive taxation, the objectives of income distribution can be implemented, and individual taxpayers do not have to flee from income tax. Usually,

the imposition of the tax is based on the ability of the taxpayers. For high-income earners, the tax charged is higher than the lower tax imposed on the lower income group. Therefore, to balance the budget, the rich should be taxed higher than the lower income group.

Efficiency in resource allocation is best served by assigning responsibility for each type of public expenditure to the level of government that most closely represents the beneficiaries of these outlays. A central government entrusted with public matters of national scope. Defence, foreign affairs, and infrastructure for interstate transport and telecommunications are the categories of expenditure that most closely fit these criteria. While local government bodies meet local needs, which provide public goods and services to residents in the area, dam projects such as water, flood control, recreation, and road lighting.

This basic efficiency argument for the decentralised provision of certain kinds of public goods is proposed as a straightforward result in the Decentralization Theorem by Oates (1977, 2006). The theorem lays out a set of sufficient conditions for the decentralised provision of these goods to be Pareto-superior to a centralised determination of public outputs. For public goods the consumption of which is defined over geographical subsets of the total population, and for which the costs of providing each level of output of the good in each jurisdiction are the same for the central or for the respective local government, it will always be more efficient (or at least as efficient) for local governments to provide the Pareto-efficient levels of output for their respective jurisdictions than for the central government to provide any specified and uniform level of output across all jurisdictions (Oates, 1972, p. 35). Pareto efficiency

can be achieved as compared to the provision by the central government, which is uniform across the median voter. In other words, the decision to provide public goods by the jurisdictions at the primary level of government is more effective and efficient because the lowest tier of government is closer to the community and knows its needs and priorities.

"Tiebout effect" introduced by Tiebout (1956) also describes how the subnational government and the central government provide goods and services according to the priority population in addition to optimizing fiscal policy. Rationally, each user allowed to move independently from one place to another to maximizing utility by selecting the type and level of output of goods or services according to their preferences (Tiebout, 1956). In the public sectors, user satisfaction will reach the equilibrium when the marginal benefit of public goods equal to the marginal cost of public goods. Thus, the user typically moved and live in a similar value of society as they willing to share the local tax burdens together. This process will eventually create a balance in accordance with relevant community groups based on income. In order to have economic gains to be realized from decentralisation, it is necessary to have decentralisation of political decision-making authority. This logic suggests that the greater the number of political units to which political authority is decentralized, economic gains are likely to be maximized. This is because large numbers of political units mean more choice for individuals to find a community that provides the level of outputs best suited their tastes (Tiebout, 1956).

As a conclusion, Table 2.10 shows the three functions of public fiscal namely is stabilization, distribution, and allocation in the traditional Musgravian sense. Briefly,

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both the stabilization and (re)distribution perspective centralized is called for, while

the allocation function is responsible to each level of government.

Table 2.10

The Musgrave Three-Function Framework

Institution	Function	Output
Central government	Macroeconomic stabilization	Economic growth, reduce unemployment, price stability (control inflation)
Central government	Income redistribution	An equitable distribution of income (reduce poverty)
Central government & Subnational government	Resource allocation	Resources are used effectively and efficiently guiding by citizen preferences

Note. Simplified from Musgrave (1959, 1969); Oates (1972, 1977, 1999); Tiebout (1956).

Fiscal goals, as outlined in Musgrave's trilogy, place the stability and distribution

functions under the jurisdiction of the top tier (centralised), while the lower tier has a

role to maximise social welfare through the allocation function (decentralized). Based

on the guidelines, the constitution's assignment of a significant number of major

services is suitable for concurrent assignment to each level of government. For such

services, it is important to specify clearly and precisely the roles of various levels of

government to avoid duplication and confusion, to ensure accountability to the

electorate and to primarily aim for effective and efficient services. Clearly, several

prominent researchers, such as Tiebout (1956), Musgrave (1959, 1969), Oates (1968,

1972, 2006, 2008), Bahl and Linn (1994), Hunter (1977), Bird (1999, 2000), Break

(1980), Bird and Vaillancourt (1999), Wildasin (1991), McLure (1993), Tanzi (1995,

2008), Shah (1991, 1997), Ter-Minassian (1997), and Ebel and Yilmaz (2002), have

provided insight into the intergovernmental equalisation arrangements in both unitary

and federal countries. It refers to the principles of the original economic theory of

federalism, which act as machinery for adjusting fiscal conflict and cooperation between the tiers of government.

2.6   Unitary-Federation: A Continuum Classification

For the past twenty years, the unitary-federation dichotomy has been extensively challenged under external factors including the pressures decentralisation and the regionalization (Baldi, 1999; Swenden, 2006). Thus, the new types of relationship between the constituent territorial units have been developed at the subnational levels. Separating decentralized and centralized states from federal or unitary constitutions is almost an impossible task; given that there can be both centralized and decentralized federations; and centralized and decentralized unitary countries (Lijphart, 1984). However, this study comes up with five categories of system of government which are simplified by unitary-federation and consequences of decentralized and regionalization. Those new system consists of centralized unitary, decentralized unitary, regionalized, centralized federation and decentralized federation (see Table 2.11).

Table 2.11
The Typology of New Classification Unitary-Federation Systems

	Unitary	**Regionalization**	**Federation**
Centralization	Centralized Unitary	Regionalized	Centralized Federation
Decentralisation	Decentralized Unitary		Decentralized Federation

In a continuum, it presents a degree of federalism which goes from centralized unitary countries to decentralized federation (see Figure 2.6). Moving along the continuum, the structure of government becomes increasingly federalism, which is the centre not

able to perform exclusively anymore. In other words, two or more units of jurisdiction established and unite separate polities as a set of institutions within a more comprehensive political system with certain powers distributed. Meaning that, the higher the degree of federalism, the more power is allocated to the constituent units.

As depicted in Figure 1.2 of the preceding chapter, unitary countries that have undergone global transformation have a scale of territory power distribution comparable to a quasi-federation country. The *"federalization process"* as Loughlin (2014) and Rodden (2004) refer to it, has made it difficult to define the clear boundaries between these categories. Consequently, this scientific classification analysis using the categories shown in Figure 2.6 fills in the gaps that Loughlin and Rodden found.

Figure 2.6
The System of Government in a Continuum

Unitary	- ->			Federation
Centralised Unitary	Decentralised Unitary	Regionalised	Centralised Federation	Decentralised Federation
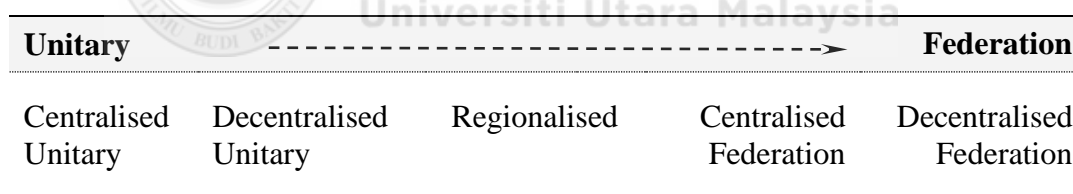
Note. Modified from Lijphart (2012) and Loughlin (2014)

Figure 2.6 shows the left end, or first continuum, was a centralised unitary state that had a multilayer structure, but the central government retained absolute control. This cluster comprises regions whose existence was not predetermined by the constitution and whose powers were not constitutionally established. This cluster had the least amount of decentralisation, which was defined as deconcentration, as it did not entail the transfer of real authority to lower layer units. In other words, neither self-rule nor

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shared rule had been granted at the regional level. Within this cluster, Luxembourg, for example, has subnational jurisdiction at three levels: districts, *cantons,* and municipalities. The districts are not given any general-purpose jurisdictions; instead, they are deconcentrated offices tasked with supervising municipalities.

In the second continuum, the cluster of unitary countries features regional delegation types that are more flexible and decentralised. Delegation is somewhat perceived as a more extensive form of decentralisation (Regmi et al., 2010). For example, in Japan, *Todofuken* (prefectures at the intermediate level) have lacked authority over their own institutions, local governments, police, residual powers, and hence are powerless to act. On the other hand, the central government established the level of subnational jurisdiction to ensure that the entire country always adhered to the same rules. Subnational powers were technically called "agency-delegated functions," which meant that governors were acting as agents of the central government and were directly accountable to the relevant central ministry when they did their jobs (Hooghe et al., 2016).

The third continuum comprises a cluster of three unitary countries with a regional government that is self-governing (autonomous) but has minimal shared rules, particularly over borrowing control. In this cluster, regional entities are constitutionally recognised but have no role in constitutional reform and have no law-making power (France), or that power is not exclusive (Italy), and are without regional representation as is customary. Within constitutional guarantees, regional bodies with elected regional assemblies and governments are accountable for budget and policy decisions (France and Italy), and regions perform certain functions on behalf of the

central government but not directly elected assemblies and governments. To some extent, the system shifted toward federalism, with power devolved to lower levels, yet the central government remained supreme over central judicial, fiscal, and economic structures. In other words, this cluster was less centralised than a rigid unitary, but it was more centralised than a federation. These clusters were termed *"regionalized"* or *"semi-federal"* (Loughlin, 2014; Lijphart, 2012)

In the fourth continuum, there was a cluster of centralised federations known as *"quasi-federations"* in which power is concentrated in the central government and the constituent units are subordinate. Wheare (1963) claims that quasi-federations should not be considered federations even though there has been disagreement about whether to label them as genuine federations or not, though some countries are so-called federations in a provision of the constitution. In such circumstances, disproportion powers occur when different constituent states possess dissimilar powers (although they have the same constitutional status). That is, it resembles an asymmetric federation. The concept of asymmetry expresses the extent to which component states do not share the conditions and concerns common to the federation system. The ideal asymmetrical federation system would be one composed of political units corresponding to differences in interest, character, and makeup that exist within the whole society (Burgess, 2006, p. 213). An asymmetric, however, occurs in a federation system where everyone must have a federation constitution and all the constituent units have the same formal status (as a state) either de facto or de jure. Russia and Malaysia both have this quasi-federation feature, which contributes to their asymmetrical nature.

The final cluster at the end of the continuum was a decentralised federation. This was the case of the United States federation established in Philadelphia (1787). As a prototype of a federation state, the United States constitution did not prevent an enormous growth in the central government's power in later years. However, it is one thing to transfer certain powers from the states to the new central government, thus transforming the United States from a confederacy into a federation. In the American Modern Federations of the United States (the classical model), central and sub-national governments are coordinated, not subordinate. Thus, the United States began as a genuine federation based on the concept of Wheare (1963), whereby power is shared symmetry between the central government and constituent units in coordinate practices.

2.7 Performance Perspective

From the foregoing discussion, the role of government cannot be denied within the framework of three basic functions. Ironically, the government ought to be wise in planning the distribution of power to each level of government if they wish to increase the effectiveness and efficiency of public goods and service delivery, boosting economic growth and reducing income inequality and wealth distribution. It is not just a theory; it is also a well-known strategy. Even so, some countries are ready and willing to put it into action. This circumstance may be triggered by restrictions for reasons of competency and resources or a refusal to share power with the lower levels of government. Thus, the best results can only be made and executed after the constraints and limitations are taken into account. Finally, there is a great variation in performance that exists in the world.

With a look around the world, there can be little doubt that countries differ dramatically in their economic development and quality of governance. Some governments are extremely corrupt, wasteful, and ineffective at providing basic public services to their citizens. Others are far more honest, efficient, and responsive. In order to find out other best surveys on performance, the Institute for Management Development (1996–2013), Institutional Profiles Database (2011), and World Bank (2012) are most referred to in the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, voice and accountability, political stability and absence of violence, regulatory quality, rule of law, control of corruption, and so forth. Figure 2.7, for instance, shows the worldwide competitiveness in the government effectiveness survey and gross national income (GNI) per capita.

Figure 2.7
Government effectiveness, 2009 vs. Gross National Income (GNI) per Capita, 2009.
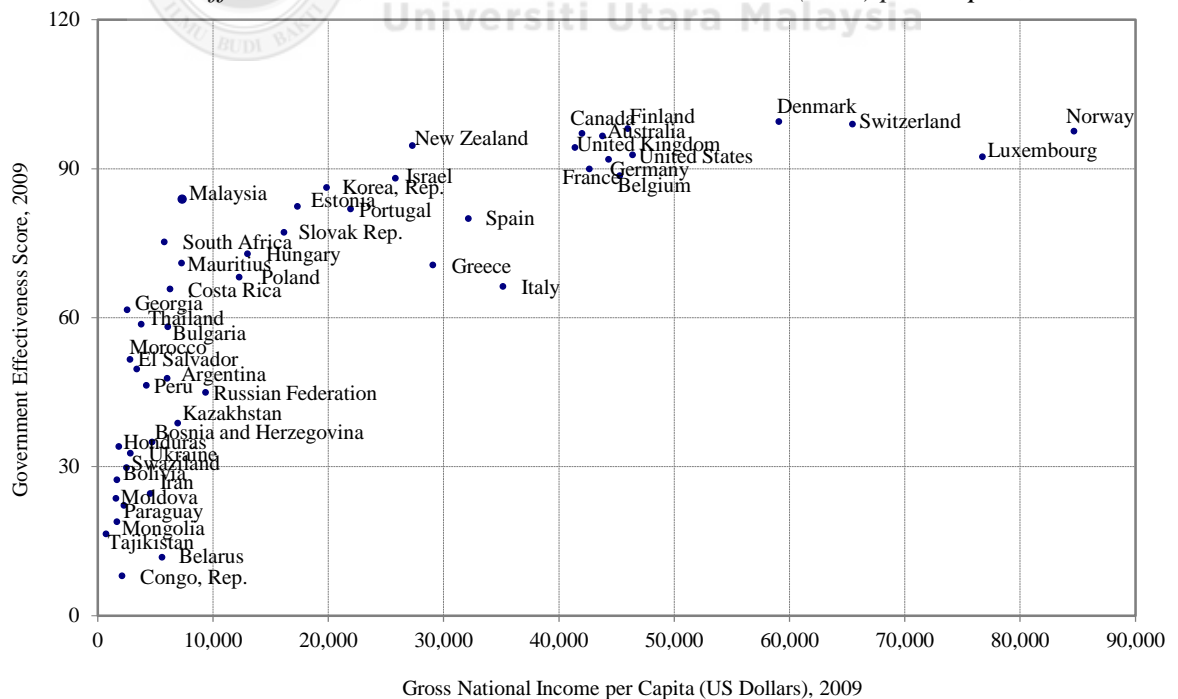
Note. Government Effectiveness Score (2009), Institute for Management Development, World Competitiveness Yearbook (WCY) & Gross National Income Per Capita (2009), World Development Indicators database, World Bank.

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At first glance, the relationship between federalism and decentralisation in regards to performance may appear debatable. However, Table 2.12 and Table 2.13 demonstrate that comparative empirical research had firmly established the connection between federalism, decentralisation, and performance.

Table 2.12
The Relationship of Federalism (IV) and Performance (DV) in Selected Studies.

Dependent Variable	Finding	Researchers
Government Efficiency	Significant/Positive	Kapoor and Ravi (2009)
Corruption	Significant/Negative	Lecuna (2012), Kapoor and Ravi (2009), Treisman (2000, 2002)
	Significant/Positive	Fisman and Gatti (2002)
Economic growth	Significant/Positive	Lancaster and Hicks (2000), Biela and Hennl (2010)
Inflation	Significant/Positive	Lancaster and Hicks (2000), Biela and Hennl (2010); Lijphart (2012)
Unemployment	Significant/Positive	Crepaz (1996)
Government Debt	Significant/Positive	Rompuy (2012), Van Hecke (2013)
Deficit/GDP	Significant/Positive	Rompuy (2012), Velasco (2000)

Note: Compiled from above sources.

Table 2.13
The Relationship of Decentralisation (IV) and Performance (DV) in Selected Studies.

Dependent Variable	Finding	Researchers
Government Efficiency	Significant/Positive	Kapoor and Ravi (2009)
Corruption	Significant/Negative	Lecuna (2012), Fan, Lin, and Treisman (2009), Ivanyna and Shah (2011), Treisman (2000)
	Significant/Positive	Fan et al. (2009), Enikolopov and Zhuravskaya (2007), Lederman, Loayza, and Soares (2005), Arikan (2004), Fisman and Gatti (2002), Huther and Shah (1998)

		Biela and Hennl (2010), Iimi (2005), Thießen (2003), Akai and Sakata (2002), Lin and Liu (2000), Yilmaz (1999)
Economic growth	Significant/Positive	Biela and Hennl (2010), Iimi (2005), Thießen (2003), Akai and Sakata (2002), Lin and Liu (2000), Yilmaz (1999)
Inflation	Significant/Negative	Biela and Hennl (2010), Lancaster and Hicks (2000), Lijphart (2012)
Government Debt	Significant/Positive	Singh and Plekhanov (2005)
Deficit/GDP	Significant/Positive	Biela and Hennl (2010), Thießen (2003), Velasco (2000)
	Significant/Negative	Neyapti (2010)

Note: Compiled from above sources.

According to Table 2.12 and Table 2.13, there were significant positive or negative relationships between federalism, decentralisation, and performance. As Biela and Hennl (2010) found, there was a significant relationship between performance indicators and both federalism and decentralization. Biela and Hennl develop a theoretical model of the causal relationship between federalism, decentralization, and system performance by bridging the gap between two strands of literature (federalism literature in political science and fiscal federalism literature in public finance) that have coexisted separately over the years. Since the variables (dimensions) of federalism and decentralisation have a significant relationship and influence macroeconomic and governance performance, this study deems it necessary to evaluate the position of the best cluster by identifying the best performance among the 11 listed performance indicators. This analysis of performance will be shown in Chapter Five, and Chapter Three will explain how this analysis helps meet the goals of the second study.

2.8   Conclusion

A democratic government should be accountable for ensuring that the needs and preferences of voters are addressed at every level. The government should determine and implement proper system management that is efficient in the provision of public

goods and services and the distribution of resources. Therefore, a suitable government system is required to provide direction and strategies for promoting superior functions in a society that is both complicated and distinctive. In the late 20th century, the move to federation became a new trend, particularly in the wake of violent ethnic strife and anarchy. Given that the transition process towards federation entails very expensive costs and extensive revisions to the constitution, as well as a lengthy amount of time to locate an adequate solution, some governments improvise on the previous system by bolstering regional authority or decentralising power. It is evident that a new dynamic political structure arose within the classic unitary-federation as a result of the granting of a small amount of autonomy to subnational powers in order to expedite decision-making and action. In chapter four, the paradigm is expanded further through a typology approach.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is an explanation of how a researcher plans to conduct their study. It is a systematic and scientific plan to solve a research problem, produce valid and trustworthy results, and fulfil their aims and objectives. In addition, the research method provides a clear plan that aids researchers in staying on track, making the process efficient, productive, and manageable. Therefore, in order to fulfil the research objectives and provide answers to the research questions, this chapter provides a description of the research design, which includes methods for data collection as well as some methods for data analysis. Before discussing the research design in greater detail, the next topic discusses the philosophy and epistemology underlying the research.

3.2 Philosophy and Epistemology

Before starting an inquiry into overall research approach, the fundamental process of designing research needs to embrace the knowledge claims, which might be called a research paradigm or philosophical assumptions (Burrell & Morgan, 1979; Creswell, 2003). By and large, research philosophy promotes an understanding of research design clarity and helps to recognise which designs work or do not work (Easterby-Smith, Thorpe, & Lowe, 2004, p. 27). In other words, the research philosophy will

underpin research strategy or road maps for how to rigorously conduct studies to best meet certain objectives (Creswell et al., 2003; Saunders et al., 2012).

Within the framework of the study, such a world view is useful for giving the opportunity to look at the phenomena of the government system from a pragmatist perspective. Pragmatism is in opposition to positivist and interpretivist worldviews. Pragmatism emphasises that there are various ways to interpret the world and explore reality, and that combining multiple approaches can result in a deeper understanding of the events under investigation. According to Saunders et al. (2012), pragmatics recognises many different ways of interpreting the world and conducting research, that no single perspective can ever provide a complete picture and that there may be numerous realities.

From the pragmatist view, the research question is the most essential factor in determining the research philosophy. According to Creswell (2003) and Creswell & Clark (2011), pragmatist researchers frequently focus on the "what" and "how" of research based on its intended consequences and where they want to go with it. This was the case with the study's key question: "What" are the relevant dimensions for a typology of government systems? "How" many groups should be constructed and "how" should the countries be classified? "What" is the relationship between constructed type and attributes? "What" are the characteristics of each constructed type? In answering research questions, pragmatism involves research approaches that incorporate operational judgments based on what will perform best. This enables pragmatic researchers to conduct studies in a dynamic manner to address research challenges and barriers.

From the research question, this study entails the construction of a typology. Typology is traditionally predominantly qualitative (Elman, 2005; Kluge, 2000; Bailey, 1994), as it is typically constructed without quantification or statistical analysis. Typology is frequently performed verbally and conceptually, without empirical cases. Although empirical cases are identified for typology, it can often be achieved without quantification (Bailey, 1994, p.6). From a qualitative standpoint, scientific classification is typically labelled and conceptualised symbolically using theoretical, verbal, and conceptual information (Bailey, 1994; Marradi, 1990). In many instances, however, qualitative methods produce an impasse, necessitating the use of quantitative methods to answer questions about real phenomena by gathering data and using inferential analysis. Significantly, this approach transcends the constraints of post-positivism and constructivism to permit the employment of both qualitative and quantitative research methods. Creswell and Clark (2011) express this as a mixed method study. According to them,

> a mixed method study involves the collection or analysis of both quantitative and/or qualitative data in a single study in which the data are collected concurrently or sequentially, are given a priority, and involve the integration of the data at one or more stages in the process of research.
> (Creswell & Clark, 2011, p. 165)

Grounded in pragmatism, this study employs both quantitative and qualitative strategies. Thus, this mixed methods research demonstrated the combination of sequential exploratory design and concurrent nested strategy (embedded).

3.3   Research Design

Prior to conducting research, it is crucial to form a design. According to Selltiz, Jahoda, Deutsch, and Cook (1965, p. 50), research design is the process of aligning the conditions for data collection and analysis in a manner that attempts to combine relevance to the research objective with procedural economy. Additionally, Creswell and Clark (2011) described research design as the process of gathering, analysing, interpreting, and reporting data in research investigations after the research problem has been identified. Thus, research design allows researchers to make methodological decisions and set up the logic to make interpretations at the end of the study.

Given that there were two research objectives, the research design was divided into two phases. The first phase established to accomplish the first objective which was to construct a typology of government system. Traditionally, typologies have been made with qualitative methods, and in this case, Kluge's qualitative typology construction has been adopted. Despite the fact that Kluge outlines qualitative rules in an empirically grounded type construct, this study included a quantitative approach using data (indices) and inferential analysis. Meaning, the first phase incorporates an embedded process called *"Concurrent Nested Strategy"*. According to Creswell and Clark,

> embedded mixed method designs incorporate quantitative and qualitative
> data into a more typical quantitative or qualitative study design.
> Secondary data collection and analysis needs to occur before, during, or
> following the implementation of the typical data collection and analysis
> techniques. (Creswell & Clark, 2011, p. 90-91)

Next, the research design set a second phase to achieve the second objective, which was to determine the best cluster/group based on three key performance indicators: economics, fiscal, and governance. This quantitative phase requires a large amount of data (indices) to identify the best ranking between groups.

Figure 3.1
Concurrent Nested Strategy and Sequential Exploratory Designs
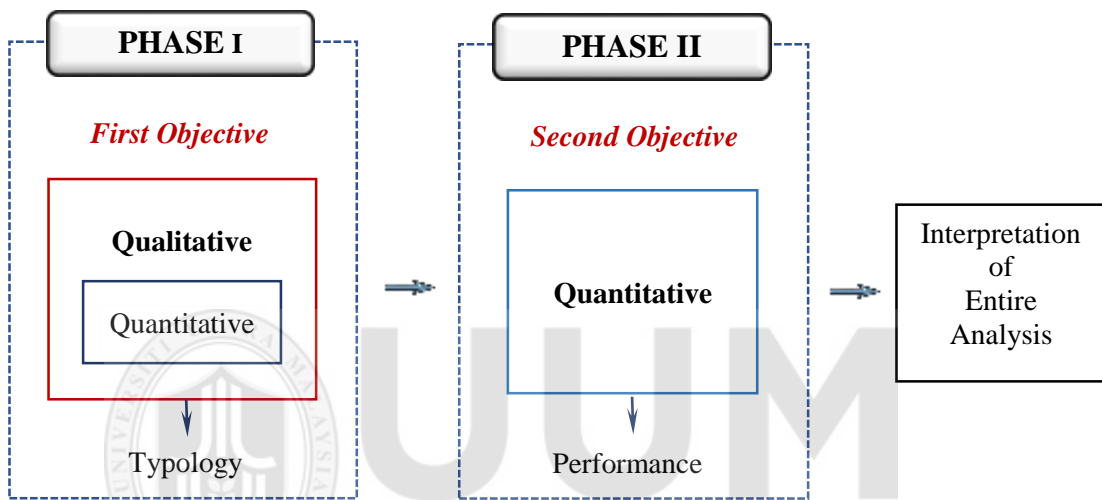
Note. Adapted from Creswell (2003)

Sequential exploratory, a design that begins with qualitative, is considered to be the role of testing theoretical aspects or also exploring phenomena in depth (Morgan, 1998), followed by quantitative, which is believed to be able to generalise qualitative results to different groups (Morse, 1991) or measure the prevalence of dimensions (Creswell & Clark, 2011). In this study setting, research design is not limited to exploring premises, characteristics, attributes, or dimensions theoretically and empirically in order to develop knowledge and produce a typology of the government system; instead, the second method (quantitative) makes a value-added and significant contribution to the result of a complete typology with the performance of each type.

3.4   Phase I: Typology Construction

Phase I was designed to achieve the first objective, i.e., to construct a typology of government systems. Prior to constructing a typology, it is best to know its meaning and approach. Therefore, typology was first defined. Next, the rules of the empirically grounded type construct by Kluge (2000) were outlined. According to Kluge, the rules consist of four steps, and these steps lead to the determination of four research questions and a research framework. This phase proceeded to discuss the countries' cases as well as data collection and analysis methods involved.

3.4.1   Typology

A typology is an array or complete set of types. Typology is part of general process of constructing and utilising type schemes of various sorts. In numerous qualitative research, types are constructed to comprehend and explain as much as possible the complexity of social realities (Kluge, 2000). In other words, typology is the study of human, animal, plant, symbol, and other types. Therefore, typology is also referred to as a scientific classification. Classification is the generic process of grouping elements by similarities. Each typology is the result of a clustering method, which divides an object field into a number of groups (called "constructed types") using dimensions. Typology may be constructed in unidimensional (single dimension or feature) or multidimensional (many dimensions, to be correlated or connected) and labelled or named in their cells (Bailey, 1994). The goal is to make each cell in the classification as similar as possible.

Bailey (2005) states that typology construction is often taken for granted, if not neglected. Even most of the literature on typology construction in social science was

also quite old and less popular. The typological foundation of social measurement is often out of view. This is unfortunate, as social theories and measurement are often no stronger than their typological underpinning. The fact is, typology studies have their own advantages. According to Bailey (2005), typologies have several distinct advantages for research and measurement, and in fact are a central feature of those endeavours:

1. *Description*

The typology is the premier descriptive tool. It is the cornerstone of any discipline, as it provides the core set of descriptive, multidimensional types or taxa.

2. *Exhaustiveness*

No other research technique provides the comprehensiveness of a full typology. The typology represents the definitive reference source for a discipline.

3. *Multidimensional complexity*

No other concept or presentation can match the complexity and conceptual range of a multidimensional type. Unidimensional descriptions are simply no alternative for the multidimensional type.

4. *Clarity*

A rigorous explication of a multidimensional type exhibits a degree of clarity and absence of ambiguity that is badly needed in research.

5. *Comparison*

From the single ideal type to the full typology, the typology is the premier tool for the rigorous multidimensional comparison and analysis of both conceptual and empirical types. The comparative procedure is very parsimonious, as it allows one to only identify the types for which empirical cases exist. Other potential types can remain latent and unused as long as they are not needed, but still are available if needed.

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6. Differences

Typologies, especially full typologies, and polar types are useful for illustrating differences among two or more empirical cases.

7. Identification of Empirical Cases

Typologies are the ultimate tool for locating empirical examples of specific types.

8. Illustration of Possibilities

A full typology allows one to illustrate possible types, even if they cannot be found empirically.

9. Reduction of Complexity

Type concepts such as the ideal and polar types, along with the reduction processes of arbitrary numerical reduction, pragmatic reduction, and functional reduction, are excellent means of reducing complexity to manageable levels.

10. Theoretical Explanation

Devices such as heuristic types, including ideal, constructed, and polar types, as well as the process of substruction, are excellent tools for facilitating theoretical illustration and explication.

(Bailey, 2005)

According to Collier, Laporte and Seawright (2008), typologies serve important goals in social science research. Good typologies depend on careful and substantively grounded conceptualization, and they are a basic tool for organizing and analysing data. The use of typologies is strongly connected to the qualitative tradition of research, yet they play a role in quantitative analysis as well. Collier, Laporte and Seawright (2008) in their writing provides:

i. an overview of these multiple contributions of typologies and presents numerous examples,

ii. a framework for working with multidimensional typologies, involve the cross-tabulation of two or more dimensions to form analytic types

iii. focus on the basic task of concept formation - where the concepts and terms come from, and the role of ideal types

iv. gives structure to empirical comparison and maps change - Typologies provide a useful bridge between qualitative and quantitative research.

(Collier, Laporte and Seawright, 2008)

Furthermore, Collier, Laporte, and Seawright (2008) propose some guidelines for careful work with typologies. First, the presentation of typologies should be clear and readily understandable, involving either an explicit matrix or careful discussion in the text. Collier, Laporte, and Seawright (2008) have mapped out the building blocks of a good typology, which centrally involve identifying the overall concept being measured, organising the row and column variables, and establishing the cell types. It might be hard to understand a type of analysis if the type does not follow this template.

Second, the construction of cell types has special importance. Employing vivid names for the types enhances scholarly communication. More fundamentally, careful work with cell types pushes the researcher toward better conceptualization. Furthermore, the cell types, taken together, provide a new variable that measures the concept around which the typology is organized. Scholars should note with care the level of measurement entailed by this variable. Collier, Laporte, and Seawright (2008) have discussed three levels that are relevant here: nominal, partially ordered, and ordinal

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scales. Understanding the substantive content of the typology and how the categories can be employed requires a clear grasp of these alternatives.

Third, drawing on conventional discussions of categorical variables, Collier, Laporte, and Seawright (2008) argue that the criterion of establishing mutually exclusive categories provides a useful norm in constructing typologies. Yet not all analytically interesting typologies meet this standard, and Collier, Laporte, and Seawright (2008) have shown that a simple reorganisation of such typologies can bring them into conformity with this norm.

Fourth, coming back to the distinction between descriptive and explanatory typologies noted at the beginning of this chapter, it is crucial to recognise which is which. One must distinguish carefully between cell types that provide a more differentiated descriptive characterization as opposed to those that denote explanatory outcomes. Confusion about this distinction distorts the information contained in a typology (Collier, Laporte & Seawright, 2008).

Fifth, researchers must emphasise once more that this distinction between descriptive and explanatory typologies does not mean that descriptive typologies-again, as with any form of measurement-play no role in formulating and evaluating explanations. In some instances, the categories contained in the typology are the explanatory variables. For example, Thompson, Ellis, and Wildavsky use the categories in the grid group typology as they seek to explain apathy and perception of risk. Similarly, Dahl introduces his typology of regime types with the central objective of distinguishing alternative trajectories in the movement toward polyarchy. His goal is to explore the

hypothesis that different trajectories, as defined in relation to the categories in his typology, have important consequences for long-term regime outcomes (Collier, Laporte & Seawright, 2008).

Finally, Collier, Laporte, and Seawright (2008) state that typologies play an important role in comparative analysis, and this should be taken into account. Typologies provide the basis for sharpening the theoretical types being investigated in a given study and clarifying the meaning of these types vis-à-vis related concepts. As just emphasized, typologies serve to compare concrete cases, both cross-sectionally and over time, and can be critical in the formulation and evaluation of explanatory claims. The adoption of clear rules for how to use typologies makes it easier to compare things and make conclusions that are both conceptually sound and analytically useful (Collier, Laporte & Seawright, 2008).

3.4.2   Qualitative or Quantitative?

Traditional typologies were generally qualitatively derived. They often remained conceptual, without empirical referents and usually formed without quantification or statistical analysis (Elman, 2005; Kluge, 2000; Bailey, 1994). More recently, typologies have been quantitatively derived through the computerized statistical analysis of empirical specimens. This approach has incorporated a variety of techniques, variously called cluster analysis, numerical taxonomy, or pattern recognition (Bailey, 2005).

Bailey (1994) acknowledged this, as did Collier, Laporte, and Seawright (2008), who compiled a number of typology studies based on quantitative research (see Table 3.1).

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Quantitative research is sometimes necessary to *"break through a qualitative analysis*

impasse," allowing researchers to identify a subset of cases or draw joint conclusions

using two research methods (Collier, Laporte & Seawright, 2008). As an alternative,

the researcher could use quantitative analysis to place cases in the typology, or the

typology could use quantitative analysis findings to make the typology.

Table 3.1
Quantitative Research and Qualitative Typology Construction

Researchers	Hibbs, D. A., Jr. (1987). The Political Economy of Industrial Democracies. Cambridge, MA: Harvard University Press.
Objective	• Strike analysis in eleven advanced industrial countries • Hypothesis: the role of public-sector allocation acts as an intermediary factor.
Quantitative	• It generates a strike data set in order to analyse long-term trends in strike size, duration, and frequency. • Scope: the decades following WWII • Bivariate linear correlations • Increased political power of labour-based and left-wing parties is associated with lower levels of strike activity.

Qualitative (Typology)	• 2 × 2 typology - cross tabulates the level of state intervention in the economy against alternative goals of this intervention.
	• Scope: up to the 1970s
	• Identifies three non-ordered categories typology - a subset of cases that manifest three patterns:
	    relatively high levels of strikes directed at firms and enterprises (Canada, US);
	    high levels of strikes which serve as a form of pressure on the government (France, Italy); and
	    a "withering away of the strike" that accompanies the displacement of conflict into the electoral arena (Denmark, Norway, Sweden).
	• Hibss analyses the outcome - in contrast to his overall argument about change in strike level that comes out of the standard correlational treatment.

Researchers	Vasquez, J. A. (1993). The War Puzzle. Cambridge: Cambridge University Press
Objective	• Identify the causes of war
Quantitative	• Correlates of War data • Observes that the literature has produced inconsistent findings in explaining the incidence of war, and argues that such inconsistencies arise because war is being analysed at too high a level of aggregation. • He identifies eight types of war by cross-tabulating three dimensions: (1) equal versus unequal distribution of national power among belligerent countries, (2) limited versus total war, and (3) number of participants.
Qualitative (Typology)	• Uses typology to focus on a subset of cases, i.e., wars of rivalry. • He draws on findings from a wide range of qualitative and quantitative studies to address such questions as why some wars between rivals are limited while others are total, and why some wars of rivalry involve two players while others include more.
Researchers	Aldrich, J. H., Sullivan J. L., and Borgida, E. 1989. Foreign affairs and issue voting: do presidential candidates "waltz before a blind audience?" American Political Science Review, 83 (1): 123–41.
Objective	• Study of the impact of foreign policy platforms on US presidential candidates' vote

Quantitative	• Analysing survey data,
	• explore - which campaign messages from presidential candidates have resonance with voters
	• degree to which the campaign issues are:
	  (1) "Available," in the sense that an opinion or position on a given issue is understood, and
	  (2) "Accessible," or perceived as relevant by voters
	• employs probit analysis - to predict the victory of specific candidates, in the conclusion the authors seek to characterize broader types of elections.

Qualitative (Typology)	• Typologies may also synthesize the findings of a quantitative analysis. • employ a 2×2 matrix that classifies presidential elections according to: • whether there are small versus large differences in candidates' foreign policy stances, • the low- versus high-salience/accessibility of foreign policy issues raised in each election

Researchers	Carmines, E. G., and Stimson, J. A. 1980. The two faces of issue voting. American Political Science Review, 74 (1): 78–91.
Objective	• Analyse distinction between "easy" issue voting, and "hard" issue voting,
Quantitative	• Probit analysis • Analysing distinction between "easy" issue voting, (in which citizens have a deeply embedded preference on a particular issue), and "hard" issue voting, in which citizens' issue preferences depend on a complex decision, typically involving interactions and trade-offs among issues.

Qualitative (Typology)	• the authors construct a 2×2 typology to describe different types of voters
	• whether, in making a given electoral choice, the voter was swayed by easy versus hard issues.
	• this yields a typology in which the 4 cell types are
	   (1) non-issue voters,
	   (2) easy-issue voters,
	   (3) hard-issue voters, and
	   (4) constrained issue voters.
	• use this typology to show how easy- versus hard-issue voting are fundamentally different processes.

Note. Adapted from Collier, Laporte, and Seawright (2008),

Although some scholars might see typologies as part of the qualitative tradition of research, Table 3.1 shows that they are also employed by quantitative analysts (Collier, Laporte, and Seawright, 2008). Typologies are systems of types that are set up in a systematic and logical way. They are a key part of how concepts and categorical variables are made.

3.4.3   Empirical Type Construction Rules

The construction of typologies is critical for qualitative social research. It is vital to define types and the method by which typologies was constructed. Kluge (2000) provides a broad explanation of the concept and demonstrates how the definition serves as the foundation procedures for the methodical construction of types. For the empirical grounded type construction rules, Kluge (2000) explains those four stages.

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First, develop relevant analysing dimensions. If the type is defined as a set of attributes, one must first define the dimensions (properties) that will serve as the foundation for the typology. The similarities and differences between the elements (people, groups, behaviour, norms, cities, organisations, etc.) must be adequately grasped with the help of the attributes. Finally, the constructed groups and types must be described using these dimensions (properties). For standardisation, these variables and their permissible attributes must be defined prior to data collection. During the analysis process of qualitative studies, the data and theoretical knowledge are used to develop and "dimensionalised" these properties and their sizes.

Second, grouping the cases and empirical regularity analysis. The cases can be grouped using the defined dimensions, and the identified groups can be examined for empirical regularities. Using the "concept of attribute space," one can obtain a general view of all possible combinations as well as the concrete empirical distribution of the cases for the various property combinations. Cases assigned to a combination of attributes must be compared to each other in order to ensure the internal homogeneity of the constructed groups, which serve as the foundation for the subsequent types. This is required because the cases must closely resemble each other on the "level of the type." Furthermore, the groups must be compared to determine whether there is sufficient external heterogeneity at the "level of the typology" and whether the resulting typology contains sufficient heterogeneity and/or variation in the data.

Third, analysing meaningful relationship and type construction. If the researched social phenomena are to be "understood" and "explained," the meaningful relationships that form the foundation of the empirically based groups and/or

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combinations of attributes must be examined. Various factors usually lead to a contraction of the attribute space and hence of the groups (combinations of attributes) to a few types. Furthermore, these analyses frequently result in additional qualities that must be addressed during type formation. The attribute space must be supplemented, and the new groups must be inspected again for empirical regularities and meaningful linkages.

Forth, characterisation of the constructed types. The constructed types are carefully characterised by their attribute combinations as well as their important relationships. Furthermore, the requirements for type characterization must be stated by prototypes, ideal types, extreme types, and so on.

These four stages constitute sub-goals of the type construction process and can be realised using various analysing methods and procedures that vary based on the research topic and the type and quality of the data. In this way, the examples can be grouped using the "concept of attribute space," by contrasting single cases, or by a computer-assisted grouping method like cluster analysis. The *"model of empirically grounded type building"* is far more open and flexible. Every level of analysis can be realised using various analysis methodologies and techniques, and the model works well with a wide range of qualitative research questions and data of varying quality. It is possible to examine which analytic procedures are most efficient in achieving the sub-goals of the individual stages of analysis for each study. Depending on the research question and the type of data, it may be more appropriate to keep the context of a case when constructing the analytical dimensions (for example, during biographical studies of the life course) or to "isolate" certain issue features in order to analyse them.

3.4.3.1 Adapt Model

Adapted the rules of empirical grounded construction of types by Kluge (2000), this study illustrated the model as shown in Figure 3.2, explicated, and systematised in detail four steps of typological construction.

Figure 3.2
Model of empirically grounded type construction
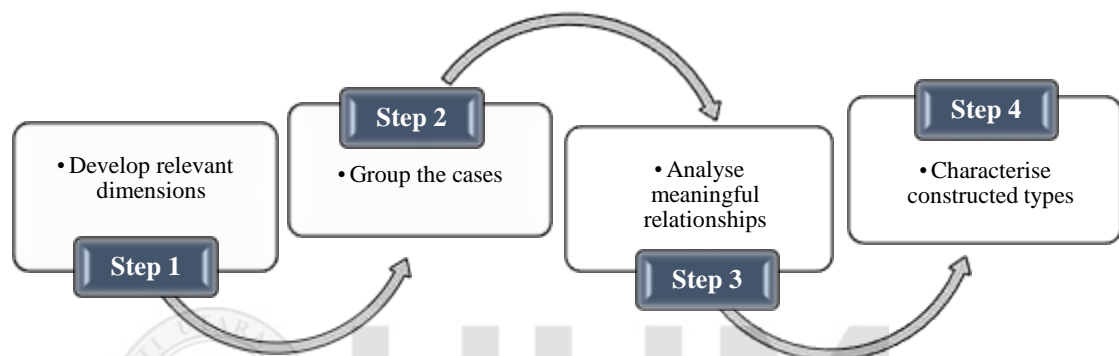
Note. Adapted from Kluge (2000).

Step 1: Develop Relevant Analytical Dimension

According to Kluge (2000), typology is a combination of attributes. The identified attributes were then categorised according to the dimensions. In fact, the significance of the dimensions was determined by how the attributes were utilised in determining the dimensions' quality and significance. During the theoretical knowledge and data collection processes, dimensions are clarified and "dimensionalised" in qualitative research.

The previous chapter identifies federalism and decentralisation as the key elements. The nine attributes of federalism were therefore categorised into the five dimensions of geography, sociology, politics, legislation, and regional authority. Decentralisation

was first discovered in the fiscal dimension, which considers the attributes of subnational revenues, subnational expenditures, vertical imbalances, and government transfer. All dimensions and characteristics are vertically arranged on the left side of the typology table (see Figure 3.3).

Step 2: Group the Cases

Cases were categorized based on a combination of identified attributes, and clustered groups can be formed using empirical determinations. Assigned cases were compared to confirm internal homogeneity within clustered groups and external heterogeneity within inter clustered groups. In other words, the cases must be similar to each other at the "type" level. At the "typology" level, groups must be compared to assess if there was enough external heterogeneity between them.

Collecting cases based on qualitative information can be challenging. First, defining the nature and dimensions associated with the system of government is challenging because of the multifaceted nature of federalism. Second, studies related to government systems (unitary or federation) were limited and popular in certain countries; therefore, a limited cases of countries involved in this classification process. This imbalance complicates the empirical analysis of regularity.

To resolve the qualitative impasse, attributes were defined based on index data. Index data, not only involves more countries cases to be classified, but this index had a high level of confidence because it is empirically controlled through inferential analysis. Through index data, an iterative process was carried out repeatedly until the final position of the centroid was found, the data points were allocated according to the

closest centroid, and finally a number of group cases could be formed. In the typology table, the groups that have been formed (constructed type) should be arranged horizontally (see Figure 3.3).

Step 3: Analyse Meaningful Relationships

A social phenomenon must not only be described, but also comprehended and explained in terms of meaningful relationships. This study examines significant relationships between the type of construct (government system) also the groups (cluster 1, cluster 2...) between each attribute. This third step was crucial not only for the relationship identification between both constructed types and attributes, but also for each group's unique properties.

Step 4: Characterised the Dimensions of Constructed Types

Constructed types are broadly described through combinations of attributes and also meaningful relationships. In qualitative research, it is necessary to clarify the concept of types (a characterization step), like ideal types, real types, prototypes, extreme types, and types of structure. These last four stages represent the sub-goals of the type construct process and can be realised with the help of different analytical methods and techniques depending on the research question as well as the type and quality of the data. Quantitatively, empirical findings enable the study to identify the characteristics of each cell and can be interpreted (such as level of homogeneity to heterogeneity, low to high, weak to strong, etc.) or labelled in typical ways (prototypes, ideal types, etc.). This process of labelling cells (characterised) was the final and most difficult step, as it was necessary to correctly conceptualise each cell within each cluster.

Figure 3.3 depicts the summary of four steps in typology construction according to the model of empirically grounded type construction by Kluge (2000).

Figure 3.3
Typology Construction Steps
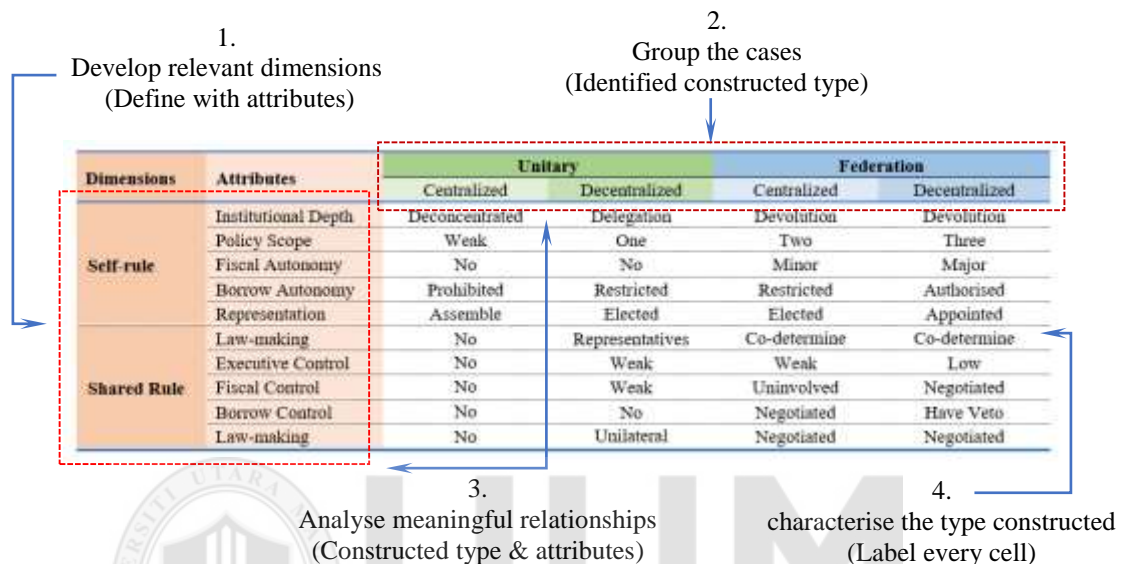
3.4.4 Cases of Countries

According to Hair et al. (2010), the sample must be large enough to provide sufficient representation all of the small groups within the population. From $n=197$ countries in the world ($n=195$ United Nation member countries and $n=2$ non-member observer countries i.e., Palestine and Vatican City), almost all countries in the world were involved in the early stages of data collection, which included information about national background such as country size, ethnicity, religion, and language, political system, and legislative system. The number of countries' cases, however, began to dwindle. Based on Figure 3.4, only $n=70$ countries could be chosen with complete data when cross-data involving the intergovernmental relationship dimension was made between the RAI data ($N=95$) and the IMF data ($N=105$).

Figure 3.4
Filtering the Cases of Countries
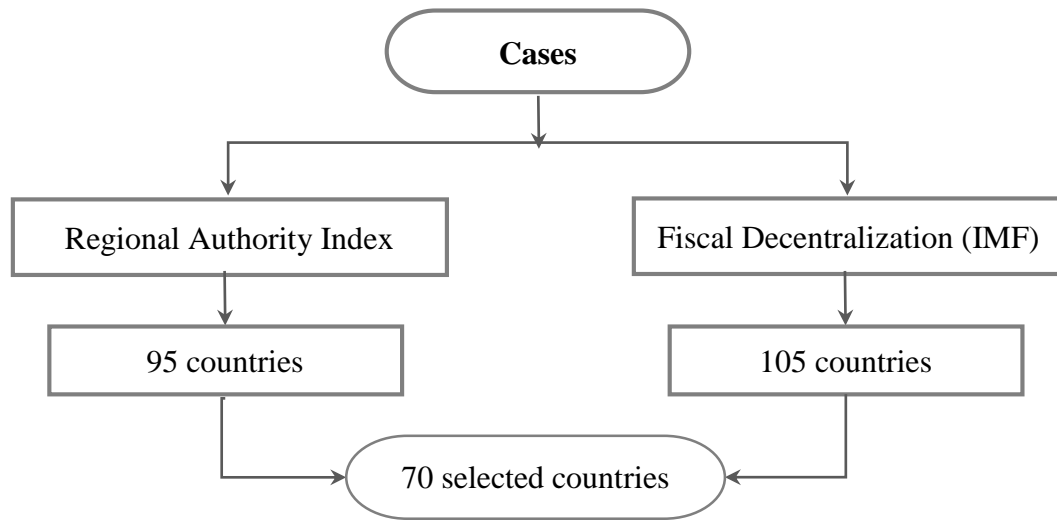
3.4.5   Data Collection

Prior to calculating and plotting data, it is critical to assess the type of data being dealt with (Campbell, 2009). Qualitative variables and quantitative variables were the two types of data. **Quantitative** variables may be counted or numerically quantified. They might be <u>continuous</u> or <u>discrete</u> in their nature. A <u>continuous variable</u> can take an <u>infinite number</u> of values within a certain range. For instance, in a range of 5 to 10 cm in length, can write an endless number of numbers, such as 5, 5.1, 5.12, 5.01, 5.003 cm etc. A <u>discrete variable</u> (discontinuous variable or finite number) can take only a specified number of values in a given range. For instance, the number of children per household can be 0, 1, 2, 3, 4, or 5. **Qualitative** variables express a qualitative attribute also referred to as category variables because they are not quantitatively measurable. These are either nominal or ordinal variables. A <u>nominal variable</u> is a qualitative variable where no ordering is possible or implied in the levels. For example, the variable gender is nominal because there is no order in the level's female or male. On the other hand, an <u>ordinal variable</u> is a qualitative variable with an order implied in the

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levels. For instance, the health condition health take values as poor, reasonable, good, or excellent. Qualitative data can be presented as frequency tables (Mayya, Monteiro & Ganapathy, 2017). The data properties of this study were listed Table 3.2.

Table 3.2
Data of the study

Dimensions	Attributes	Sources	Types
FEDERALISM			
Geography	Size of state	CIA 2019	Numerical Continuous Ratio
Sociology	Ethnic diversity	Alesina et al. 2003	
	Linguistic diversity		
	Religious diversity		
Politics	Democracies	EIU 2020	Categorical Nominal
	Party system	BTI 2020	
Legislature	Number of chambers	Nation Master	
Regional Authority	Self-Rule	Regional Authority Index (RAI) 1970-2018	Numerical Continuous Ratio
	Shared Rule		
DECENTRALIZATION			
Fiscal	Subnational Revenue	GFS IMF 1970-2019	Numerical Continuous Ratio
	Subnational Expenditure		
	Vertical imbalance		
	Government Transfer		

Notes: CIA - Central Intelligence Agency, The World Factbook; EIU - Economist Intelligence Unit; BTI - Transformation Index of the Bertelsmann Stiftung; GFS - Government Finance Statistics, International Monetary Finance (IMF),

The secondary data used in this research had 13 attributes. Quantitative or numerical continuous ratio data was made up of 11 attributes. The rest two attributes were categorical nominal data that were used to examine the cluster groups' characteristics.

3.4.6   Data Analysis

Data analysis is the systematic application of statistical and/or logical methods to describe and visualise, summarise, and recall, and assess data. At this stage of data analysis, analytical methodologies were organised to meet research objectives and

answer research questions. In order to construct a typology, Kluge offers four rules by which the four research questions were addressed and the research method designed. During this phase, the embedded strategy or the *"Concurrent Nested Strategy"* was applied. As the rule of Kluge's type construction is employed qualitatively, the vital initial step was written qualitatively. However, a quantitative approach was required to "break through a qualitative analysis impasse" in the subsequent second, third, and fourth steps.

Figure 3.5 depicts the construction framework for the typology. There are four steps of construction, with each determining the method or statistics used to answer the research question. The first step was to determine the **relevant dimensions**. This step was accomplished qualitatively through library research and data obtained from books, journal articles, and other sources related to system of government concepts, theories, and cases. The second step entails **group the cases**. At this point, it is necessary to determine the number of groups, and cluster analysis was used for this purpose. The number of involved country cases was determined by the availability of index data derived from secondary data sources. The third step was to examine the **relationship** between the constructed types (the clusters of government systems) and the established dimensions and attributes. Consequently, the correlation method was crucial for this task. The final step was to **characterise constructed types** (government system cluster). Meaning, each cell must be labelled based on the characteristics identified (e.g., small, medium, large, or low, medium, strong). Using descriptive methods, ANOVA, and boxplot, these characteristics were determined.

Figure 3.5
Concurrent Nested Typology Construct

TYPOLOGY CONSTRUCT FRAMEWORK

Objectives:			
1. To construct a typology of government systems.			

Research Questions:			
1. What are the relevant dimensions for a typology of government systems?	Develop relevant dimensions	QUAL	Library research – books & articles journal and other relevant sources.
2. How many groups should be constructed and how should the cases of countries be classified?	Group the cases		Cases of countries - *N=70* Data Collection: - See Table 3.2 Analysis: - Cluster Analysis
3. What is the relationship between constructed types and attributes?	Analyse meaningful relationships	QUAN	Analysis: - Correlation
4. What are the characteristics of each constructed types?	Characterise constructed types		Analysis: - ANOVA - Descriptive - Boxplot

3.4.6.1   Develop Relevant Dimensions

Constructing a typology requires dimensions. Hence, the relevant dimensions were identified qualitatively through library research, in which related sources pertaining to concepts, theories, and case studies of government systems were gleaned from journals, books, and other sources. The observation revealed that the majority of discussions about government systems tend to lean towards federalism and decentralization. Table 3.3 shows that five dimensions, namely geography, sociology,

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politics, the legislature, and regional authority, fall under multifaceted federalism, while the fiscal dimension falls under decentralisation. All had 13 attributes that were used to embark on the first step of construction of a typology of system government. Table 3.3 shows related multidimensions from the exploration process.

Table 3.3
The Multifaceted Federalism Study and Sources

Dimension		Attribute	References
FEDERALISM	**Geography**	Size of Country	Newton and Deth (2010), Wrede (2004), Treisman (2002), Dikshit (1971).
	Sociology	Ethnic, Linguistic & Religious Diversity	Diseko (2018), Newton & Deth (2010), Erk and Koning (2009), Erk (2006), Burgess (2006), Treisman (2000), Livingston (1952).
	Politics	Democracy	Economist Intelligence Unit (2020), Diamond (2016), Mair (2014), Hague & Harrop (2013), Lijphart (2012, 1984), Erk & Koning (2009), Erk (2006), Gagnon (1993), Elazar (1987, 1995).
		Party system	Sartori (2016), Caramani (2014), Loughlin (2014), Hepburn and Detterback (2013), Burgess (2006), Filippov, Ordeshook, and Shvetsova (2004), Chhibber and Kollman (2004), Schlesinger (1991), Riker (1964), Friedrich (1963)
	Legislature	Chambers	Kenton (2021), Kreppel (2014), Baldi (1999), Wheare (1967)
	Regional Authority	Self-Rule & Shared Rule	Hooghe et al. (2016), Loughlin (2014), Caramani (2014), Newton and Deth (2010), Gerring et al. (2007), Burgess (2006), Ordeshook, and Shvetsova (2004), Treisman (2002), Watts (1998, 1999), Osaghae (1990), Filippov, Elazar (1987), Riker (1964), Wheare (1963), Friedrich (1963)

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		Subnational Revenue	Gerring et al. (2007), Loughlin (2014), Oates (1972), Musgrave (1983), Norregaard (1997), Bird (2000), Ebel & Yilmaz (2002), Riker (1964),
DECENTRALIZATION	Fiscal	Subnational Expenditure	Gerring et al. (2007), Loughlin (2014) Oates (1972), Musgrave (1983), Norregaard (1997), Bird (2000), Ebel & Yilmaz (2002), Riker (1964)
		Vertical imbalance	Hunter (1977), Shah (1991), Ahmad and Craig (1997), Ebel and Yilmaz (2002)
		Government Transfer	Ter-Minassian and Craig (1997), Fisher (2007)

For verification purposes, *VOSviewer* was used to check the dimensions listed in Table

3.3. Based on Figure 3.6, *VOSviewer analysis* (conducted in two different time periods

in 2021 and 2022) illustrates the keywords of the government system were related to

the study of federalism, federation, unitary, political geography, ethnic conflict,

politics, legislature, power, regionalism, decentralization, control, fiscal federalism.

Figure 3.6
System of Government Keywords in VOSviewer

Year 2021   *Year 2022*

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3.4.6.2   Group the Cases

In order to classify 70 selected countries into a particular group, cluster analysis and Regional Authority Index (RAI) data were retrieved for this procedure. According to Table 3.2, RAI data was used to evaluate the two dimensions of self-rule and shared rules. Each of these dimensions is explained by five attributes. Self-rule explained by the attributes: (1) institutional depth, (2) policy scope, (3) fiscal autonomy, (4) borrowing autonomy and (5) representation. While the shared rule was interpreted by the attributes: (1) law-making, (2) executive control, (3) fiscal control, (4) borrowing control, and (5) constitutional reform. Based on these ten RAI attribute index data, groups were formed according to their unique qualities. At the beginning of the clustering test, all 19 characteristics were involved and this procedure was repeated several times in order to achieve the best results. Finally, the test found that these ten RAI attributes generated the optimal qualities for forming groups.

3.4.6.2.1   Cluster Analysis

Cluster analysis is a group of multivariate techniques whose primary purpose is to group objects based on the characteristic similarity. The resulting clusters of objects should exhibit high internal (within-cluster) homogeneity and high external (between-cluster) heterogeneity (Hair et al., 2010). Cluster analysis, however, has no mechanism for differentiating between relevant and irrelevant variables. Therefore, the choice of variables included in a cluster analysis must be underpinned by conceptual considerations (Cornish, 2007). This is very important because the clusters formed can be very dependent on the variables included. Cluster Analysis offers a variety of techniques for clustering data. Such techniques may be categorised as (1)

Hierarchical Cluster Analysis, (2) Non-hierarchical Cluster Analysis, and (3) Combination Methods.

Hierarchical cluster analysis (HCA) is the most straightforward and common method of clustering. The stepwise procedure attempts to identify relatively homogeneous groups of cases based on selected characteristics using an algorithm either agglomerative or divisive, resulting in the construction of a hierarchy or treelike structure (dendrogram) depicting the formation of clusters. Agglomerative methods, in which subjects start in their own separate cluster. The two 'closest' (most similar) clusters are then combined and this is done repeatedly until all subjects are in one cluster. In the end, the optimum number of clusters is then chosen out of all the cluster solutions. Whereas divisive methods, in which all subjects start in the same cluster, the above strategy is applied in reverse until every subject is in a separate cluster. In many cases, agglomerative methods are used more often than divisive methods.

Figure 3.7
Agglomerative Methods Vs Divisive Methods
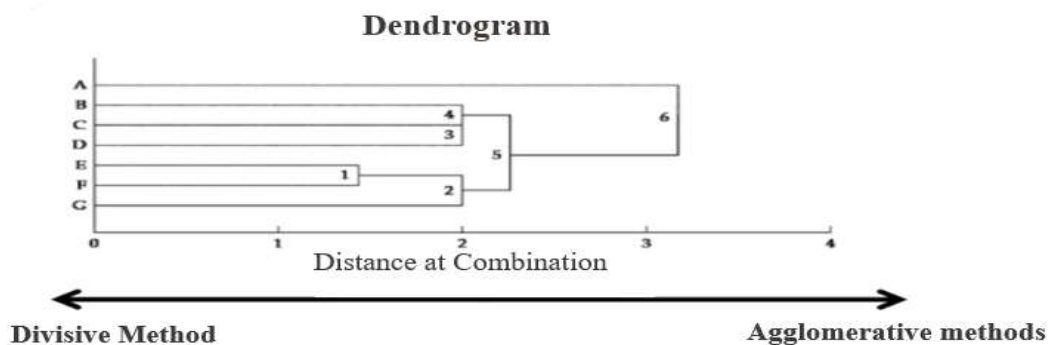
Note: adopted from Caccam and Refran (2012)

HCA is ideal for samples sizes in the range of 300-400, but not viable for analyses of large samples (exceeding 1000). The HCA demonstrates clustering techniques in a

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simple but comprehensive manner via the use of the dendrogram. Additionally, HCA is able to generate a multitude of clustering solutions within a short period of time. HCA, on the other hand, requires re-analysing the data many times to minimise the effect of outliers and eliminate problematic observations each time. In contrast to HCA, non-hierarchical cluster analysis (NCA) allocates variables into clusters based on the specified number of clusters *(k).* In general, K-means is commonly used to refer to NCA. NCA is often applied when large data sets are involved. It is sometimes preferred because it allows subjects to move from one cluster to another (this is not possible in HCA where a subject, once assigned, cannot move to a different cluster). Two disadvantages of NCA are: (1) difficult to determine the number of clusters to choose, requiring the analysis to be performed repeatedly several times; and (2) it can be very sensitive to the choice of initial cluster centres.

A combination approach entails first performing an HCA followed by NCA. To begin, the HCA method is utilised to determine the number of clusters and profile cluster centres that serve as initial cluster seeds in the NCA procedure. After that, the NCA method clusters all observations using the seed points to provide more accurate cluster memberships. Thus, the advantages of HCA approaches are complemented by NCA methods' capacity to refine the results by allowing the determination of cluster membership.

3.4.6.2.2   Clusters Number Determination

How to find the clusters number? To determine the number of clusters, Shobha (2020a, 2020c) shows the combination methods of cluster analysis i.e., (1) hierarchical clustering (Shobha, 2020a), (2) two step cluster analysis (Shobha, 2020b; Kumar,

2016; Gaskin, 2015) and, (3) k-means cluster analysis (Easy, 2018a). Test ascertain the quality of the cluster number before proceeding to the next test (3). Once the number of clusters has been established, a more comprehensive analysis in K-means cluster performed. Figure 3.8 indicates the procedure of clusters determination clustering number.

According to Shobha (2020a), hierarchical clustering were three ways for determining a cluster number (1) agglomerative method (2) dendrogram, and (3) icicle. In this study, hierarchical was the first step however, only two techniques; agglomerative and dendrography was employed (see Figure 3.8). In an agglomerative method, the Elbow Point helps decide the number of the clusters. This elbow was produced using the line graph made from the values of the coefficient. While dendrogram determines the number of clusters for the scaled distance as 5 (Shobha, 2020a; Gaskin, 2015).

Next, a two-step analytical test for cluster quality was conducted utilising the number of clusters given in the first procedure (hierarchical). This test displays information about the inputs and the cluster number in the Model Summary View and the cluster quality chart shows the overall model quality as poor, fair or good. Lastly, the K-mean cluster analysis method used the cluster numbers from the two preceding procedures. This process is more efficient and convincing than the repeated k number test, which in a single K-means procedure has made it difficult to pick the best number.

Figure 3.8
Clusters Determination Clustering Number Procedure
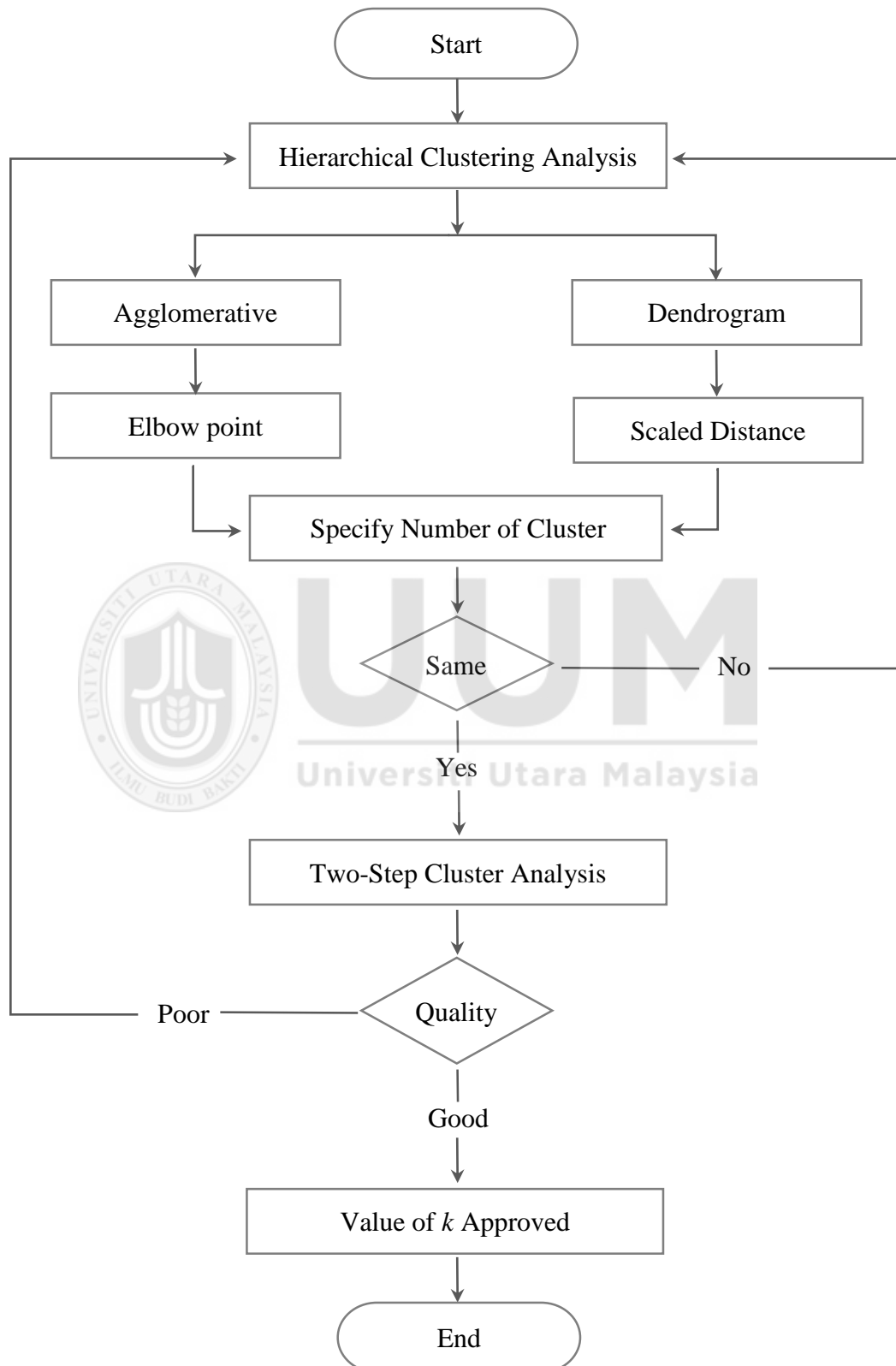
3.4.6.2.3   K-Means Clustering

K-means is method of cluster analysis using a pre-specified number of clusters. It requires advance knowledge of k (number of clusters) to divide the dataset to each cluster to find the mutually exclusive cluster of spherical shape based on distance (Shobha, 2020c). In other words, k-means performs division of objects into cluster which are similar between them and are dissimilar to objects belonging to another cluster.

After having the value of k (as shown in Figure 3.8), the k value was typed into the number of clusters box in SPSS, and the system started assign many centroids randomly in each cluster. Euclidean distance is a distance measure used to find out which data point is closest to each centroid. Then measures the distance of each of the data points from these centroids and assign those points to the corresponding centroid from the minimum distances (will assign the centroid which is closest to it) and have k number of initial clusters. The system recalculates the actual centroid (reposition the centroids), after recalculating (reposition), new centroid is formed (Simplilearn, 2022; Grande, 2015).

Figure 3.9
K-Means Clustering Algorithm Flowchart

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```
                          ┌───┐
                          │ A │
                          └─┬─┘
                            ↓
        ┌───────────────────────────────┐
        │      Measure the distance      │←──────────┐
        └───────────────┬───────────────┘            │
                        ↓                             │
        ┌───────────────────────────────┐            │
        │ Grouping based on minimum distance │        │
        └───────────────┬───────────────┘            │
                        ↓                             │
        ┌───────────────────────────────┐            │
        │      Reposition the centroids   │           │
        └───────────────┬───────────────┘            │
                        ↓                             │
                  ◇─────────────◇                     │
                 ╱  Cluster Stable ╲────── No ────────┘
                  ◇─────────────◇
                        │
                       Yes
                        ↓
        ┌───────────────────────────────┐
        │          Convergence           │
        └───────────────┬───────────────┘
                        ↓
                  ╭───────────╮
                  │    End    │
                  ╰───────────╯
```
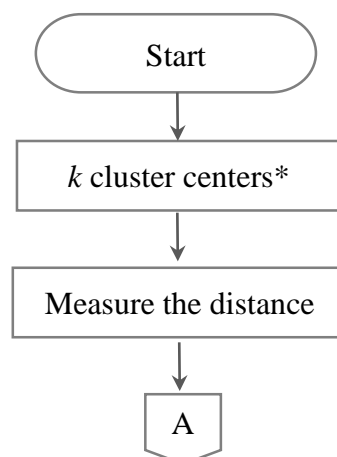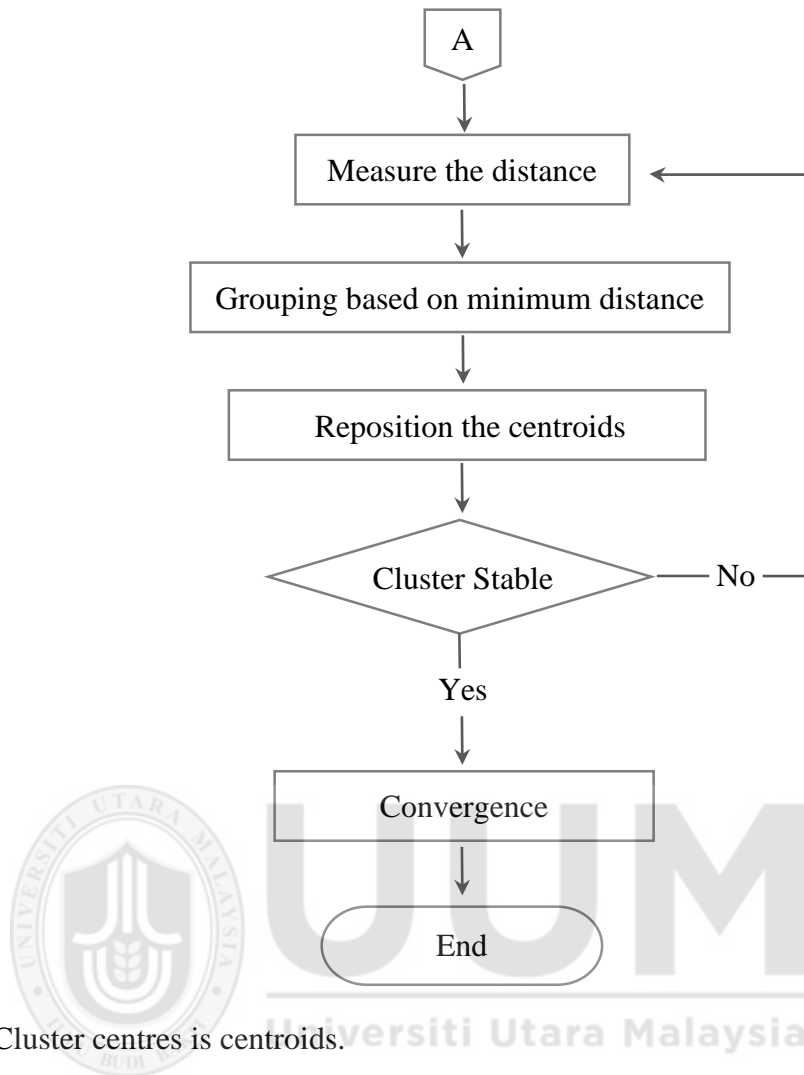
Note. Cluster centres is centroids.

For the new groups for the clusters that have been formed, it calculates the main position thereby calculates the new centroid position. Position the centroid moves compare to the randomly allocated. It is an iterative process. The distance of each point is measured from this new centroid point. If required, the data points are re-allocated to the new centroids and the mean position (new centroid) is calculated once again if the centroid moves, then the iteration continues which means the convergence has not happened, the clustering has not converged (Easy, 2018b).

Figure 3.10
Iterations Process

The 'K-Means' clustering algorithm will randomly assign all the observations into clusters and iteratively reach the best outcome.

The **cluster centres** represent the cluster. If the centres are farther apart, it suggests that the clusters are more distinct (Recall that is the aim of cluster analysis).
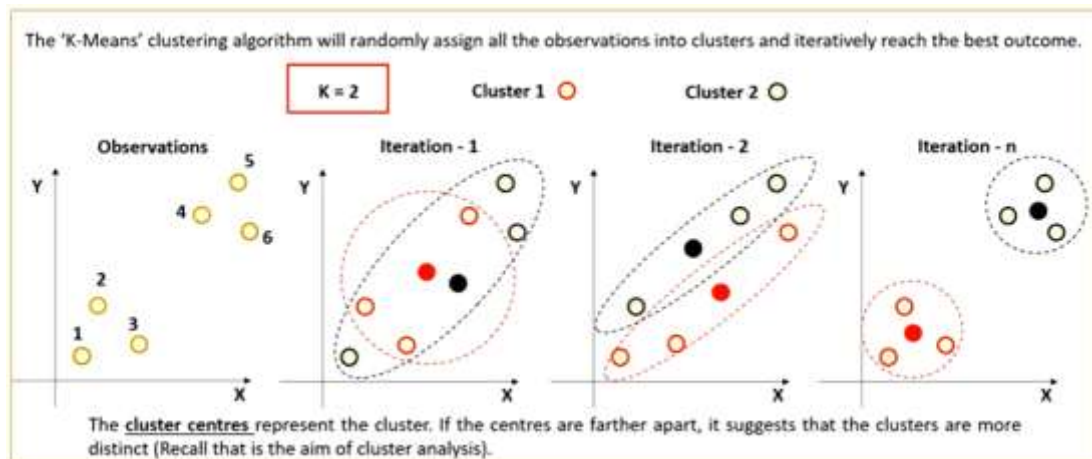
Note. Adopted from Easy (2018b)

As long as there is a movement of the centroid this iteration keeps happening but once the centroid stop moving which means that the cluster has converged or the clustering process has converged that will be the end result. In other words, once the cluster become static (.000), k-means clustering algorithm is said to be converged. The final position of the centroid and the data points are allocated accordingly to the closest centroid. The lower this value is the better the cluster, that means all these points are very close to each other (Simplilearn, 2022; Grande, 2015).

3.4.6.3 Analyse Meaningful Relationship

To examines significant relationships between the type of and attribute, correlation analysis was employed. Prior to conducting the correlation test, parametric testing was performed to ensure that the data met the criteria for a normal distribution. Consequently, this part provides an outline of the testing techniques that must be conducted to achieve the objectives of step three of this typology.

3.4.6.3.1   Normality Test

Numerous statistical tests require an analysis of the normality of data. Analysis of variance (ANOVA), correlation, regression and t-tests, all are based on the assumption of a normal distribution for the data and are referred to as parametric tests (Ghasemi & Zahediasl, 2012). The two most often used tests for determining normality are the Kolmogorov-Smirnov (K-S) and Shapiro-Wilk. According to Ghasemi and Zahediasl (2012), when applying parametric statistical tests, the normality assumption should be considered, and the most commonly used test for normality, the K-S test, should no longer be used due to its poor power. It is preferable to assess normality visually and using normality tests like the Shapiro-Wilk test, which is highly recommended. The Shapiro-Wilk test is more powerful than the K-S test since it is based on the correlation between the data and the matching normal scores. Additionally, Thode (2002) recommends the Shapiro-Wilk test as the optimal method for determining the normality of data. As a result, the Shapiro-Wilk test was utilized to determine normality numerically in this study.

Due to the 13 attributes (see Table 3.2), three categorical variables (ordinal or nominal variables) cannot be appropriately examined using normal distribution tests. Thus, this test was conducted on 19 attributes of numerical continuous variables.

Table 3.4 shows that nine attributes had a normal distribution with a Shapiro-Wilk $p > .05$. The remaining nine attributes had a Shapiro-Wilk significance level of $p < .05$. The distribution was considered non-normal if the test was significant. Conversely, if the significance level of the Shapiro-Wilk Test was greater than 0.05, the data was normal distributed (Laerd Statistics, 2018; Grande, 2016; Ghasemi & Zahediasl,

2012). Given that the Shapiro-Wilk normality test provided various results for the data

distribution, this study adheres to the requirement for further analysis. This study

followed the same procedures as Ciupak et al. (2021) and Sanyoto et al. (2020), who

used the ANOVA and Pearson for parametric tests (normally distributed data) and the

Kruskal-Wallis and Spearman tests for non-parametric testing (respectively).

Table 3.4
Normality Tests for Attributes

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Size of Country	.090	70	.200*	.974	70	.158
Ethnic Diversity	.051	70	.200*	.978	70	.259
Linguistic Diversity	.056	70	.200*	.971	70	.100
Religious Diversity	.106	70	.049	.973	70	.142
Democracy	.080	70	.200*	.968	70	.075
Regional Authority	.183	70	.000	.898	70	.000
Self-Rule	.106	70	.048	.968	70	.068
Institutional Depth	.070	70	.200*	.990	70	.841
Policy Scope	.104	70	.060	.950	70	.007
Fiscal Autonomy	.182	70	.000	.868	70	.000
Borrow Autonomy	.101	70	.076	.939	70	.002
Representation	.060	70	.200*	.981	70	.383
Shared Rule	.233	70	.000	.770	70	.000
Law-making	.234	70	.000	.767	70	.000
Executive Control	.272	70	.000	.665	70	.000
Fiscal Control	.321	70	.000	.664	70	.000
Borrow Control	.439	70	.000	.456	70	.000
Constitutional Reform	.249	70	.000	.756	70	.000
Subnational Revenue	.177	70	.000	.889	70	.000
Subnational Expenditure	.093	70	.200*	.967	70	.064
Vertical Imbalance	.087	68	.200*	.958	68	.022
Government Transfer	.093	68	.200*	.953	68	.013

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

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3.4.6.3.2　Correlation

After performing a normality test on the data distribution, each critical attributes required to determine their meaningful relationship with the constructed types. This requires performing a correlation test. Correlation involves analysing the degree of linearity between two variables. In other words, correlation is a statistical relationship between two random variables in bivariate data, whether causal or not. The correlation coefficient reflects the strength of linkage between two variables and represents a single number between-1.0 and +1.0 by the symbol of the letter r. The values range from -1.0 to 1.0. Perfectly negative correlations are shown by -1.0, whereas perfectly positive correlations are shown by 1.0. A 0.0 correlation indicates no linear relationship between the two variables. Table 3.5 is an interpretation of the strength of the relationship according to the value of the correlation coefficient, from negligible to very strong.

Table 3.5
Interpretation of Correlation Coefficient

Correlation Coefficient	Interpretation
0.00 – 0.09	Negligible
0.10 – 0.39	Weak
0.40 – 0.69	Moderate
0.70 – 0.89	Strong
0.90 – 1.00	Very Strong

Note: Schober, Boer and Schwarte (2018)

Due to the fact that the correlation test also involves a normality assessment, Pearson Correlation Analysis is used for all normal ratio data, whereas Spearman Correlation Analysis is used for all non-normal and ordinal data.

3.4.6.4 Characterise Constructed Type

This final step requires descriptive tests (measuring central tendency such as mean, median, and measure of position using box plots) to determine the unique characteristics and an inferential test involving ANOVA or Kruskal-Wallis to test the variances between the five constructed types. This result was crucial in that each cell needed to be labelled and conceptualised. As a result, a typology of government systems was entirely constructed.

3.4.6.4.1 ANOVA

After the clustering process produced five groups, the subsequent procedure focused on determining the variation between groups. The one-way ANOVA test was then employed to do this. A one-way ANOVA test has multiple prerequisites:

a) One-way ANOVA is a parametric procedure.

b) One-way ANOVA compare three or more groups.

c) the DV must be quantitative, at the scale level, that is, an interval or ratio.

d) the scores on the DV within each group should be approximately normally distributed.

Given that one-way ANOVA is a parametric test, this test was performed on only the ten attributes with $p > .05$ (see Table 3.4).

ANOVA is an abbreviation for "analysis of variance." The analysis of variance compares the variances of groups in order to determine the variations between and within groups. Variation between groups is inevitable, particularly when one group is distinct from another. However, there is variance within each group, a random variation that contributes to the noise in the model. An ANOVA tells us if the variance

contains more signal than noise. In ANOVA, an independent variable is referred to as a "factor." Indeed, this is commonly referred to as a "factorial analysis of variance." The number of a factor is represented by the symbol k, while the number of subjects in the factor is n (like sample size). The independent variable (factors) is categorical or nominal, with three or more groups.

ANOVA is an *F-test* that makes use of the *F ratio*. The *F ratio* is named after Sir Ronald Fisher, a British statistician and geneticist. *The F ratio* is a ratio calculated by dividing the variation across treatments (in the numerator) by the variance within treatments (in the denominator). A large *F ratio* (or *F value*) indicates the success of the experiment. Although the group meanings vary, a post-hoc analysis is still required (Research by Design, 2017).

ANOVA is a two-stage procedure. These two steps are required since ANOVA is an omnibus test that requires several comparisons. Run an ANOVA to begin. The ANOVA procedure is used to ascertain the general differences between groups. The ANOVA result in the table shows the mean group's differences but does not reveal which groups were distinct. The researchers must do a post-hoc analysis to determine which group was significantly different from the others. A post hoc analysis should be undertaken if the ANOVA test reveals statistically significant results. Unless the ANOVA was non-significant, a post hoc test would be unnecessary, since there would be no differences to find. Next step, do post hoc analyses.

The post-hoc test compares the means of each independent variable to the means of the other independent variables. As mentioned, a post hoc analysis is necessary when

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the null hypothesis is rejected and there are three or more groups. Additionally, the test made the following assumptions: (1) observations are independent within and across groups, (2) the groups for each mean in the test are normally distributed, and (3) there is equal size and equal within-group variation across the groups. This research unfortunately had unequal sample sizes where Cluster 1 had $n=22$, Cluster 2 $n=29$, Cluster 3 $n=3$, Cluster 4 $n=9$, and Cluster 5 $n=7$. To handle uneven sample sizes and unequal variances, Macur and Pontes (2021) and Stephanie (2015) recommend the Scheffe test or Games-Howell pairwise comparison test for parametric post hoc testing to account for different sample sizes and variances.

When groups are compared, there are two sources of variation**: between groups** and **within groups**. Variance between groups is due to actual treatment effects plus differences due to chance or error. For instance, if the high-exercise group ended up being healthier than the no-exercise control group, then a difference between the groups would exist. Variance within-group is due only to chance or error. For example, in the low sleep group, each person in the group would sleep for different amounts of time, and that is variability within the low sleep group.

3.4.6.4.2   Kruskal-Wallis

A non-parametric test also known as a distribution-free test, makes no assumptions about the underlying data of a given distribution. In other words, when data is not normally distributed, a non-parametric test is utilized (the skewness and kurtosis deviate a lot from 1.0). A non-parametric test can be used in place of a one-way analysis of variance (ANOVA). When the ANOVA assumptions (assumption of normality) are violated, the Kruskal-Wallis test is applied. The Kruskal-Wallis is a

"one-way analysis of variance on ranks" due to its use of data value rankings rather than actual data points. This rank-based test is used to examine whether the medians of two or more groups differ statistically. The Kruskal-Wallis test can be used to determine the statistically significant difference between groups, but it does not show which groups are distinct. As a result, a post-hoc test should be conducted (Stephanie, 2021).

3.4.6.4.3 Descriptive Analysis

In quantitative statistical analysis, descriptive tests typically precede inferential tests, as per Kaur, Stoltzfus, and Yellapu (2018):

> Descriptive statistics are used to summarise data in an organised manner by describing the relationship between variables in a sample or population. Calculating descriptive statistics represents a vital first step when conducting research and should always occur before making inferential statistical comparisons. Descriptive statistics include types of variables (nominal, ordinal, interval, and ratio) as well as measures of frequency, central tendency, dispersion/variation, and position. (Kaur, Stoltzfus & Yellapu, 2018, p.1)

In this phase, however, inferential tests (ANOVA and Kruskal-Wallis) were first employed to determine variance between groups. Followed by a descriptive test involving the mean, also minimum and maximum to compute the range. These tests used to summarise specific characteristics of the cluster (labelling cell in typology table), in addition to being presented in a more understandable graphical format including box plots.

3.5   Phase II: Group Performance

This is a qualitative phase designed to accomplish the second objective i.e., to examine groups which are likely to promote better performance, and answered fifth questions i.e., which groups in the government system promote the best performance?

3.5.1   Data Collection

The data in this part comes from secondary sources and was generated from certain indices. In Table 3.6, 11 indicators were presented, each of which was classified into one of three key performance areas: economic, fiscal, or governance. Annual economic and fiscal data were collected and covered a five-decade period, as was annual governance performance data, encompassing a two-decade period.

Table 3.6
The Sources of Performance Indicator

Performance	Indicator	Sources
Economics	• GDP Growth Rate • GDP per capita, PPP • Unemployment • Inflation	World Economic Outlook Database by International Monetary Finance (IMF), 1970-2019
Fiscal	• Government Debt/GDP	
Governance	• Voice and Accountability • Political Stability • Government Effectiveness • Regulatory Quality • Rule of Law • Control of Corruption	The Worldwide Governance Indicators (WGI), 1996-2019

3.5.2   Data Analysis

Figure 3.11 illustrates the analysis method used in Phase II to achieve the second objective of the study and answer the fifth research question.

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Figure 3.11
Group Performance Analysis Framework

Objectives: 2. Examine groups which are likely to promote better performance.			
Research Questions: 5. Which groups in the government system promote the best performance?	Identify the best cluster in economic, fiscal, and governance performance.	QUAN	Inter-Cluster Analysis Boxplot
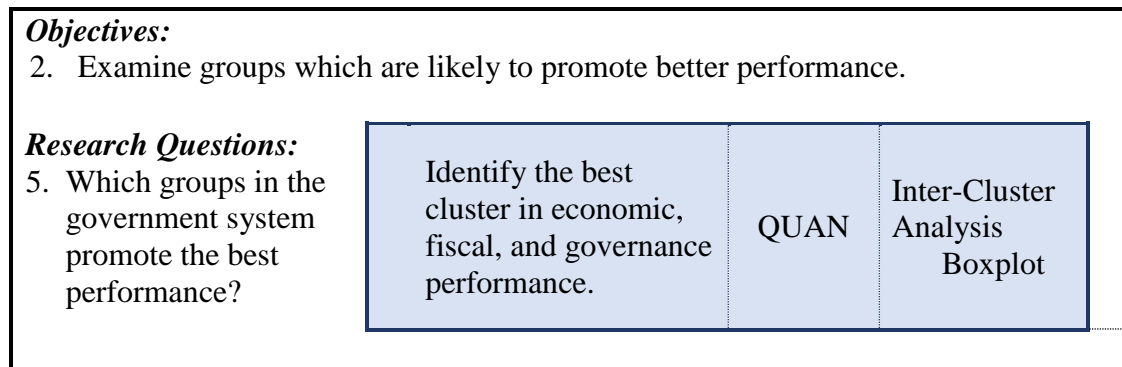
This section distinguished performances between clusters variations according to the indicators listed in the inter-cluster comparison. Through this inter-cluster analysis, which cluster in the system promote the best performance can be identified and boxplot was used for this purpose.

3.5.2.1 Box Plot

Box plot are graphical presentations widely used to determine the position of values in a dataset. In descriptive statistics, a box plot or boxplot (also known as box and whisker plot) is often used in explanatory data analysis. Box plot visually show the distribution of numerical data and skewness through displaying the data quartiles (or percentiles) and averages. Box plot shows the five-number summary of a set of data: including the minimum score, first (lower) quartile, median, third (upper) quartile, and maximum score (McLeod, 2019).

The box plot display of the central value, variance, and extreme values in a data set. A rectangle (box) is drawn along the vertical y-axis of the plot, which shows the range of data values. The length of the box indicates the middle 50% of scores and its two ends indicate the upper and lower hinges. Lines (whiskers) extending outward from

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the box denote variation in the upper and lower 25% of scores, while a separate line within the box indicates the score that falls in the very middle of the set (i.e., the median). Stars or other single points indicate extreme scores. A box-and-whisker plot is useful in exploratory data analysis for indicating whether a distribution is skewed and whether the data set includes any outliers; it can also be used to compare data.

Box plot or box-and-whiskers plots are an excellent way to visualize differences among groups. Box plots manage to carry a lot of statistical details namely medians, ranges and outliers. However, the box plots are not always intuitive to read. How to compare the box plots? For quick comparison box plot, Ngo (2018) suggest these:

1.   Start with the boxes

Box plots represent the interquartile range, or the middle half of the values in each group. If two boxes do not overlap with one another, for example, box A is completely above or below box B, then there is a difference between the two groups. If the boxes are overlap, move on to the lines inside the boxes.

2.   The median

These are the medians, the "middle" values of each group. If the median line of box A lies outside of box B entirely, then there is likely to be a difference between the two groups. If both median lines lie within the overlap between two boxes, we will have to take another step to reach a conclusion about their groups.

3.   The whiskers

The lines coming out from each box extend from the maximum to the minimum values of each set. Together with the box, the whiskers show how big a range there is between those two extremes. Larger ranges indicate wider distribution, that is, more scattered data. The same thing can be said about the boxes. Short boxes mean their data points

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consistently hover around the centre values. Taller boxes imply more variable data. That's something to look for when comparing box plot, especially when the medians are similar.

4.   Outliers

When there are outliers, they are dotted outside the whiskers. Not all datasets have outliers. Data points have to go above or below the box pretty far to count as outliers.

(Ngo, 2018)

3.6   Conclusion

In conclusion, this chapter has explored numerous crucial aspects of research design, including cases, data collection, and data analysis, in order to meet two research objectives and answer all five research questions. Figure 3.12 provides a summary of the overall study design. Four research questions are posed as a guide for constructing the typology, which is the focus of the first objective. Each procedure was applied to analyse finding in Chapter Four. The second objective was to identify the best cluster based on performance analysis. The answer to the fifth research question serves as a roadmap for achieving the objectives outlined in Chapter Five.

Figure 3.12
Research Objectives, Research Question, and Chapter Occupied

TYPOLOGY CONSTRUCTION FRAMEWORK

Objectives:			
1. Construct a typology of government systems.			

Research Questions:			
1. What are the relevant dimensions for a typology of government systems?	Developing relevant analytical dimensions	QUAL	Chapter 4 - Subtopic 4.2
2. How many groups should be constructed and how should the cases of countries be classified?	Grouping the cases		Chapter 4 - Subtopic 4.3
3. What is the relationship between constructed types and attributes?	Analysing meaningful relationships	QUAN	Chapter 4 - Subtopic 4.4
1. What are the relevant dimensions for a typology of government systems?	Characterised the dimension of construction types		Chapter 4 - Subtopic 4.5

⇩

GROUP PERFORMANCE ANALISIS

Objectives:			
2. Examine groups which are likely to promote better performance.			

Research Questions:			
5. Which groups in the government system promote the best performance?	Identify the best cluster in economic, fiscal, and governance performance.	QUAN	Chapter 5 - Subtopic 5.3

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CHAPTER FOUR

CONSTRUCT A TYPOLOGY OF GOVERNMENT SYSTEMS

4.1 Introduction

This chapter accomplished the first objective of the study, which was to construct a typology of government systems. Typologies are generally multidimensional and characterized by labels or name in their cells. The elements within a type have to be as similar as possible (internal heterogeneity) and the differences between the types have to be as strong as possible (external heterogeneity) (Bailey, 1994; Kluge, 2000). Based on Kluge (2000), there were four processes involved in a typology's construction. The steps of typology construction have been shown in Figure 3.2, a model of empirically grounded type construction. Each step of its construction was detailed in the following sub-topics.

4.2 Developing Relevant Analytical Dimensions

This subtopic described the relevant dimensions, so that the framework for the construction of the typology of government systems can be initiated and answering the first research question. The observation revealed that the majority of discussions about government systems tend to lean towards federalism's philosophy and norms, owing to federalism's multifaceted and adaptable body of knowledge. Based on Table 3.3, this table displays five dimensions under federalism, namely geography, sociology,

politics, the legislature, and regional authorities, while the fiscal dimension is discussed under the variable decentralisation.

4.2.1   Federalism

Federalism is difficult to comprehend in a general context due to the fact that it is frequently debated across other fields and develops diverse perspectives. Federalism can be understood distinctively and differently depending on the argument's subject and objective. In this subsequent subtopic, federalism was explored via the lenses of geography, sociology, politics, and subnational authority. Finally, this discussion has formed an understanding of how federalism works within a government system framework.

4.2.1.1   Geography

Since the terms unitary and federation are used to describe geographical structure (Schrems, 2007), federalism has not been avoided in this dimension. Political geographers agree that federalism is the most geographically expressive form of government, even though they have not paid much attention to the study of federalism to understand its geographical roots. Even if this geography does not ultimately decide whether a state adopts a federation or non-federation form of government, a society's geography is largely separate and peculiar to federalism (Dikshit, 1971, p. 108).

Geographical and federalism have been defined from their respective perspectives as spatial interaction for two reasons. First, it is founded on the existence of regional diversity, as well as a shared sense of locality and interests. Second, as a result of a "dual" political organisation and substantial regional autonomy, the regions in a

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federation state remain highly articulate, and spatial interactions in a federation state, in contrast to other forms of government, are apparent and easily identifiable. Because federalism starts with a tacit recognition of regional personalities and because it is clear that spatial interactions play a role in the political lives of federation countries, federalism is a good topic for geographical study if geography is properly defined as the science of how people and places interact.

The existence of regionally clustered diversity is the underlying geographical underpinning of federalism. Perhaps this is why geographical federalism is viewed as a form of government reliant on regional diversity. No government has ever been referred to as a federation unless it was established on a regional basis. Federalism loses all meaning if it is supposed to encompass non-territorial groups of diversity. Regional distinctions or a strong sense of locality may exist in states that are not constituted on a federal basis, but federalism becomes inevitable only when the region is strong enough to demand and receive social services (Dikshit, 1971, p.106).

4.2.1.1.1 Size of Country

This attribute evaluates the country based on its geographical characteristics, such as its size. According to most comparative politics books, large countries such as Canada, Australia, India, the United States, Russia, Brazil, and Mexico are best suited for federation. Comparatively, unitary states are ideally suited for small countries such as Singapore and Liechtenstein (Newton & Deth, 2010). On the other hand, China, Japan, Indonesia, and New Zealand are large unitary states. Relatively, Malaysia and Switzerland are medium-sized federations. In general, bigger countries have access to more resources and are better able to handle their heterogeneous communities. Small

countries are more culturally homogenous. Wrede (2004) analyses different structures of countries: small homogeneous countries; large countries with a heterogeneous population; and federations with more than one level of government.

The ideal size of a country becomes a relevant issue when small unitary states are unable to control the externalities of public goods provision or when large unitary countries are unable to accommodate government spending to allocate public goods in various regions. The federation seems to be more flexible for both small and large countries, since each responsibility (like spending or taxing) can be given to the level of government that best understands the needs and wants of the people.

The challenge for both large and small-sized countries is to combine effectiveness with efficiency. This objective is typically achieved by the geographically decentralised or centralised structure of power. Under a unitary system, these imbalances and diversities are often concealed or ignored. Federation, however, does not necessitate the preservation of existing sovereignties. The underpinning of federalism unification is the recognition of the limitations of different divisions as self-rule and fully functional entities. Even though one of the main features of federalism is that diversity is grouped by geography, diversity within a federation does not have to follow the borders of the states that make it up.

Although the fact that geography does not determine a government's being a federation or non-federated form, central officials in large unitary countries will find it more difficult to monitor those who must implement policies in far-flung regions. As a result, large non-federated countries will always demonstrate a considerable degree of

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decision decentralisation, as it reduces both local bureaucrats' self-interested and corruption as well (Treisman, 2002).

4.2.1.2   Sociology

According to Alesina et al. (2003) and Alesina and Ferrara (2005) fractionalization data, the most homogeneous societies in the world are South Korea (0.00) and Japan (0.01). According to the basic principle, the homogeneity of culture, religion, and language is competently controlled by a central authority; thus, both South Korea and Japan are compatible with unitary systems. In indicating that the vast majority of the world's population is heterogeneous in terms of ethnicity, language, and religion (see Figures 2.3a and 2.3b), the complexity and complication of this society's diversity make it susceptible to conflict when the demands and objectives of diverse individuals are not met. Within this social divide, how can harmonious relationships be formed? Typically, sociological theory, one of the earliest conceptions of federalism, is used as the lens through which to examine social diversity. Livingston (1952) asserts that federalism is a normative principle, where a sociological framework as a subject of federalism emphasises the incorporation, accommodation, preservation, and promotion of multiple identities within a larger political unity. Only when a society is socially privileged does it require federalism to protect and exhibit its own traits.

In accordance with normative principles, federalism recognises and protects significant social differences, including religious, linguistic, and ethnic diversity. The more diverse a society is, the greater the demand for communicating that difference (Livingston, 1952). Similar to Gagnon (1993), his concerns about heterogeneity in society perceive a better possibility in federalism arrangements that offer broader

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expression to community or regional interests. This diversity, therefore, can be arranged in an institutionalised idea and conveyed in federated government form. To be a federation, a territory must have obvious land divides according to society's homogeneity. Modern federations may have functions that resemble marble cakes, but the main differences in the basis of federations must be organised geographically; otherwise, a diverse society cannot be federally organized.

4.2.1.2.1 Ethnic, Linguistic and Religious Diversity

Countries with significant social cleavages in terms of ethnicity, linguistic, religion, culture, or history frequently struggle with chronic issues of cohesion. This social conflict always begins with the obstruction of minority groups from achieving their goals and desires as a result of the cultural, political, or economic independence of the majority society, which has resulted in blatant segregation (Treisman, 2000). According to Treisman (2000), the "ethnic conflict argument" has three primary causes. First, ethnic minorities are not concentrated territorially. Second, if the minority is sufficiently geographically concentrated but flawed, the problem is transferred to the local level and remains unresolved. Third, the demands of ethnic minorities may be unrestricted, and the group may also be committed to separatist issues (Triesman, 2020).

On the basis of the preceding argument, ethnic conflict is closely related to social and territorial divisions. Previously, Erk (2006) stated that inequitable territorial divisions within the Latin American federation led to unresolved social conflicts. Diseko (2018) discovered ethnic, linguistic, and religion divisions in territories that were not part of the Latin American federation. In fact, issues of social division, democracy, and

federalism as a means of resolving social conflicts in the region are rarely discussed. Cross-religion and customary divisions splintered Switzerland's politics, and territorial divisions were viewed as a solution to this conflict. Political decentralisation helps solve territorial divisions because it gives minorities more political autonomy and lets them have "different policy preferences" (Diseko, 2018, p. 90).

Erk (2006) argues that ethnofederalism is a means of resolving social conflicts by recognising the "institutionalisation of minority nationalism" (Erk, 2006, p. 108). Ethnofederalism is a system of institutions designed to meet the needs of minority ethnic groups across racial, linguistic, and religion lines. Through federalism, provinces and local governments are empowered to meet the aspirations of local citizens, and minorities are granted access to the advantages of larger political entities. Ethnofederalism reduces interregional ethnic tensions by allowing ethnic groups to exercise a degree of self-government, particularly in the areas of education, culture, and religion (Erk, 2006). However, Diseko (2018) explains that this' recognition 'has flaws as it maintains and reinforces differences between groups, resulting in the long-term separation of nationalists. On the one hand, "recognition of national minority institutions" provides a workable solution to segregation, and on the other hand, it makes segregation a more plausible alternative to federalism (Erk, 2006, p. 109). In Russian federalism, the institutional/constitutional structure of federalism is of little consequence, as these formal arrangements are routinely disregarded or reshaped. In the majority of new democracies that inherited federalism, separatist pressures were typically stronger (Erk, 2006, p. 110).

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Erk and Koning (2009) also discuss linguistic democracy as a solution to this social divide. According to Erk and Koning (2009), language has been an important mechanism in the democratic space in the West since the 1970s. For societies with few (homogeneous) social divisions, language will be the most effective mechanism because it creates an equal public space for everyone, regardless of territorial boundaries. In contrast, for a heterogeneous society, ethnolinguistic and religion separation must occur within the democratic space. This region-based social heterogeneity is the result of decentralisation, whereas social homogeneity is more centralised (Erk & Koning, 2009). Collective organisations (such as trade unions, professional associations, non-government organisations, and political parties), according to Erk and Koning, are among the implementing organisations that play a role in translating the significance of democracy into linguistic heterogeneity.

4.2.1.3   Politics

Politics refers to a set of activities pertaining to the governance of a country or region, which entails collaborative decision-making (Hague & Harrop, 2013). Politics, according to Caramani (2014), is a human activity in making public and authoritative judgments since it requires a focus on the entire community. Moreover, this authoritative judgement is significant for the government because it has been granted the authority to make decisions supported by the community. Politics is also a battle and competition for power and its use, as well as the acquisition and exercise of decision-making power. Politics can determine what and how something is significant to society. In a democratic system, for instance, citizens participate directly in elections and referendums. If they are dissatisfied with the judgement and have protested

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through protests, petitions, and letters, they may vote differently in the subsequent election (Caramani, 2014).

In political science, federalism is rarely discussed separately. According to Gagnon (1993, p.15), federalism is frequently viewed as a political tool for establishing institutions and flexible relationships capable of facilitating relationships and powers amongst government level orders and inter society cooperation. Elazar (1984, p. 2), on the other hand, regards federalism as a political action that necessitates the spread of a specific sort of cooperative relationship throughout the political system. Federalism helps with the transition to democracy, but it can also stymie democratic consolidation. Regional actors who formerly aided the opposition to centralised authoritarians can now obstruct democratically elected national governments.

In terms of modern federalism theory, Riker (1964) explained federalism as a political arrangement in which government tasks are divided between central and regional governments in such a way that each form of government has some activities where it makes final decisions. According to Riker (1964), the structure of federalism is proportional to the arrangement of political parties. In other words, the centralised degree of federation system is proportional to the degree of centralization in its political parties. The federal relationship is centralised in such a way that the parties organised to run the central government have power over the parties organised to run the component government. This translates to stating that changes in the degree of centralization (or peripheralization) in federalism's constitutional structure are virtually completely due to variations in the degree of party centralization (Riker, 1964). Table 4.1 summarising politics and federalism in Sweden, India and Canada.

Table 4.1

Politics and Federalism in Sweden, India and Canada

State	Politics and Federalism
Sweden	• Federalism in Sweden demonstrates a lack of public debate and is organised through political groupings.
	• Federalism in Sweden similarly emphasises vertical power distribution (between levels), but does not address horizontal power (political and judicial authority).
	• The core of federalism is the balance between the judiciary and politics between the central and regional systems;
	• The political decentralisation demonstrates that federalism is a country that requires a federal government. There are additional districts inside the association, which are constitutionally protected political spaces with no federal interference.
	• The Centre Party is one of the non-socialist parties that believes federalism entails the separation of powers and that Sweden must take six actions:
	i. Decentralization
	ii. A written constitution
	iii. Autonomous unit
	iv. Local governments' decision-making authority should be tied to revenue;
	v. There is a connection between society and the law;
	vi. Cooperation amongst autonomous entities is essential.
India	• India is a big nation comprised of 21 states, some of which have difficulties.
	• Some states in India, like Andhra Pradesh (until 1957), West Bengal, Kerala, and Tripura, contain a number of communist parties and activities. This party will also rule continuously or alternately, but with greater stability.
	• Federalism in India is asymmetrical due to the unequal distribution of power, which is separated into three parts: the union list, the state list, and the joint list.
	• India is a multiracial, multireligious nation governed by a secular constitution.
	• India's political system has shifted from one dominant party to a multiparty system as a result of economic liberalisation, privatisation, and economic globalisation. This political system is also characterised by a higher degree of hybrid associations.
Canada	• Canada is regarded as a full democracy with a liberal and egalitarian tradition and a moderate political worldview.
	• This country's political system is a multi-party system. There are two prominent parties in Canada: The Liberal Party of Canada and the Conservative Party of Canada.
	• In some jurisdictions, elections are held solely for legislatures or governments, as well as for the United Nations and other public and private organisations, including businesses and trade unions.

Note. Summarised from Caramani (2014)

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4.2.1.3.1   Democracy

Democracy is understood as a set of institutionalised behaviours and procedures that safeguard freedom. The fundamental qualities of a democracy include government based on the rule or choice of the majority and governed consent; free existence and fair elections; protection for minorities; and observance of human rights (The Economic Intelligence Units, 2007). Democracy transcends the sum of its institutions. A democratic political culture is also necessary for the legitimacy, effective operation, and long-term survival of democracy. According to Prezeworski (1991), democracy is a system of conflict processes that is dependent on the conduct of the people and has no controlling authority. Democracy forces a group to fight for their interests and shifts power away from a small number of groups that determine the rules. Diamond (2016), democracy is comprised of four elements: the political system to elect and replace a new government through free and fair elections; active participation as citizens in politics and civic life; protection of human rights for all citizens; and the rule of law by following a fair procedure for all citizens.

According to Erk (2006), one of the most significant aspects of federalism is whether it supports or hinders democracy. Some view the two levels of government in a federal system as a benefit to democracy, whereas others believe that a federal system divides the general will and, as a result, hinders the possibility of large-scale democratic reform and consolidation (Erk, 2006, p.107). Federalism is said to be ideally suited for democracies, particularly those with very large populations or expansive geographical territories. Furthermore, it has been noted that true federalism can only exist in a democracy. Because an authoritarian government will always insist on centralising power through a unitary form of government, this is the case. To increase

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efficiency, power must be decentralised and delegated to an elected body in a democracy if it is to have credibility and the support of the people (Cruz, 2016).

Nevertheless, some federations are not democratic while others are. The Soviet Union, Yugoslavia, and Czechoslovakia had federal constitutions but were not really federations because they were under Communist control (the Communist Party held all legal power) (Mair, 2014). Brazil and Argentina alternate between periods of central military rule and relatively democratic elections in their states and regions. In Brazil, the state government was instrumental in drafting the constitution to abolish military rule. In Mexico, the Institutional Revolutionary Party dominated Mexican elections for decades, but its influence is diminishing. Nigeria and Pakistan have democratic and military regimes. During the country's transition to democracy, the federal constitutional structure became important as subnational units were empowered (Mair, 2014).

To this day, the transition of a democratic country is more obvious and may be identified with certainty using the available democracy index. Index of democracy by the Economist Intelligence Unit (2020) offers a snapshot of the global democracy index based on five categories: electoral process and pluralism; civil liberties; government functioning; political participation; and political culture. Countries are assigned to one of four regime types on a scale from 0 to 10: full democracies, flawed democracies, hybrid regimes, or authoritarian regimes. Table 4.2 shows the details of these four types of democracy regimes.

Table 4.2
Types of Democracy Regime

Types of Democracy	Descriptions
Authoritarian Regimes 0.0 - 3.9	Numerous countries in this category are totalitarian regimes. There may be formal institutions of democracy, but they lack substance. If elections do occur, they are not free and fair. There is a disregard for violations and abuses of civil liberties. Typically, state-owned or groups affiliated with the ruling regime control the media. There is repression of government criticism and pervasive censorship. The judiciary is not independent.
Hybrid Regimes 4.0 - 5.9	Significant irregularities frequently prevent elections from being both free and fair. Frequently, the government exerts pressure on opposition parties and candidates. In political culture, the functioning of government, and political participation, serious flaws are more prevalent than in democracies with defects. Corruption is typically pervasive, and the rule of law is weak. Weak civil society. Typically, journalists are subject to harassment and pressure, and the judiciary is not independent.
Flaw Democracy 6.0 - 7.9	Having elections that are both free and fair Even though there are issues, such as restrictions placed on media freedom, the most essential civil liberties are nevertheless upheld. However, other characteristics of democracy, such as its governance issues, its poorly established political culture, and its low levels of political participation, are significantly flawed.
Full Democracies 8.0 - 10.0	countries that not only respect basic political freedoms and civil liberties but also have a political culture that is conducive to the flourishing of democracy. The government functions satisfactorily. The media are independent and diverse. There are effective checks and balances in place. Judicial decisions are enforced, and the judiciary is independent. There are a few issues with the functioning of democracy. Even if there are problems (such as restrictions on media freedom), fundamental civil liberties will be upheld in flawed democracies.

Note. Adapt from Economist Intelligence Unit (2020)

4.2.1.3.2 Party system

The greater game of democracy is closely related to political parties and party system

(Filippov, Ordeshook & Shvetsova, 2004). "Party", the origin term of the Latin verb is

"partire", which means to divide. Party conveys the concept of part, which is not a

derogatory term in and of itself; rather, it is an analytical concept. However, this term is not directly borrowed from Latin in the political discussion vocabulary (Sartori, 2016). The term "part" also appears in the French word *"partager,"* which means sharing, as well as the English word *"partaking"* (let alone partnership and participation). According to Burke's definition (quoted in Sartori), a party is

…a body of men united, for the purpose of promoting by their joint efforts the national interest on some particular principle on which they are all agreed...and parties are the "proper means" for enabling such men to carry out their common plans with the full power and authority of the State... party in all its distinction from a part, i.e., a tangible agency, something as real as factions. Likewise, parties and factions can no longer be merged. (Sartori, 2016, p. 8)

Schlesinger (1991) described a political party as an organisation structured to control the government by winning elections and governing the country's administration. The party is an organisation whose members collaborate to advance the national interest on the basis of shared ideals.

While the party system is called "inter-party competition exchanges" (Sartori, 2016). This notion by Sartori has three meanings. Firstly, the party system must consist of many parties (otherwise, there would be no inter-party competition). Second, the party system is more than the sum of its parts (i.e., political parties). This involves an appreciation of their interconnections. Thirdly, "system" implies a degree of consistency, signifying continuity between elections. There are four major types of party systems: (1) the one-party system; (2) the two-party system; (3) the multi-party

system; and (4) the bipolar system (Caramani, 2014) and Table 4.3 shows the difference.

Table 4.3
Format of Party System

Party system	Features
One party	A single party is formed by the government based on the constitution. The remaining parties could either be declared illegal or be against national unity. E.g.; China - Communist Party of China (since 1949), North Korea - Worker's Party of Korea (since 1948), Laos - Lao People's Revolutionary Party (since 1975), Vietnam - Communist Party of Vietnam (since 1954), and Eritrea - People's Front for Democracy and Justice (since 1991), and Cuba - Communist Party of Cuba (since 1959).
	One dominant party with absolute votes and seats. No party is close to 50%. Other parties have no realistic prospect of winning, while the dominating party obtains the most votes. In an authoritarian dominant party system, the opposition parties are legal but too weak to confront the incumbent party. E.g.; South Africa-African National Congress (Since 1994); Northern Ireland, the Ulster Unionist Party.
Two party	Two major parties dominate approximately 80% of votes and seats in politic system. Each party takes around 35 to 45% whereas one of the parties reaches 50% of the seats. Alternation between parties. Government dominated a single political party. E.g., the United States, the Bahamas, Austria, Costa Rica, Malta, Zimbabwe and Jamaica.
Multi-party	Numerous parties, none of which attained 50% of the votes and seats. Parties compete in elections independently and form coalitions after the elections. Succession through change of coalition government. E.g., majority of countries including Germany, Denmark, Netherlands, South Korea, Malaysia, Finland, Iceland, India, Indonesia, Ireland, Italy, Mexico, New Zealand, and Norway.
Bipolar	Two grand coalitions consist of several parties that share 80% of the votes and seats. A balanced coalition. A stable alliance all the time and conduct elections as an electoral alliance. Substitution between combinations. Coalition government.

Source: Caramani (2014)

The format of a party system is determined not only by the number of functioning parties, but also by the characteristics of the system type. Typically, one parties operate in circumstances where true political fighting is seen intolerable. Although a single party typically prohibits the expression of opinions that are fundamentally averse to the party line or ideology, there may be heated policy disagreements inside the party itself despite these restrictions.

In contrast to two-party and multi-party systems, these systems illustrate ways of arranging political conflicts in a pluralistic society. The more the societal heterogeneity, the more the number of parties representing ethnic or religious communities. This type of approach is seen as a democratic framework for reaching consensus on decisions. Debate may become highly constrained under a two-party or multi-party system, and some interest coalitions may undermine the democratic process. The distinction between two-party and multi-party systems is not as simple as it appears. There are typically little parties in combination with the two major parties in a two-party system, and it is always possible that a minor party will prevent one of the major parties from gaining a majority of seats. In addition to the number of parties, there are many other factors that affect how a two-party system works, such as how disciplined the parties are (Encyclopedia Britannica, 2022).

In the discourse of federalism, "the party and the party system are not just mediators or indicators; they are the basic components of the federal system (Filippov, Ordeshook, and Shvetsova, 2004). According to Chhibber and Kollman (2004) and Caramani (2014), the party system and party politics have been nationalised with a homogeneous structure where political processes and decisions are decided centrally.

However, given the existence of a multi-party system, a political party can decide whether to concentrate power at the sub-national level. This is discussed by Loughlin (2014) in relation to the decentralisation of power. Loughlin (2014) argues that political parties "aim to achieve control over the central state apparatus," where the central political party is the government's controller when making decisions. On the other hand, in a federal or regional state, the role and power of the ruling party are delegated to the regional level. For example, in Australia, local parties are trying to involve themselves with their national counterparts to strengthen the approach. Various identities and rhetoric are emphasised in order to strengthen a party. It involves changing the party's logo, correspondence, and printed materials. Additionally, it requires a qualitative shift in party discourse, emphasising the importance of geography (culture, identity, and social values) and state representation (Hepburn & Detterback, 2013). Therefore, party system parameters influence federal design (Erk, 2006, p.113).

As the party system is affected by federalism, as stated by Chhibber and Kollman (2004), party system changes produce either centralization or regionalism. Chhibber and Kollman (2004) claim that voters, exposed through party choice, react to the nature of political power changes in the country more often than they cause the change through their chosen party. The evidence they present shows that political and economic centralization precedes party aggregation in Canada, Great Britain, India, and the United States. However, Chhibber and Kollman (2004) fail to explain the emergence of strong provincially based parties in Canada (Reform Party and Bloc Quebecois) during the 1993 and 1997 elections in an essentially unchanged balance between the federal and provincial governments. Furthermore, their theory does not

seem to travel well to smaller federal systems with social divisions. In Belgium, the split of the national party into autonomous linguistic divisions and the emergence of parties committed to federalism preceded the federalization of the country. In Switzerland, by contrast, nationwide parties remain despite political and economic decentralization.

4.2.1.4   Legislature

The phrases legislature was commonly treated interchangeably with the term's parliament, congress, or assembly. This means that no legislatures in any political system are identical or serve the same purpose. A legislature is a group of people with the authority to legislate; more precisely, an organised body with the power to create laws for a political entity. Congresses and parliaments are both constituted of people elected by the public to represent their country's interests in legislative matters, but differ in how they are elected and what they do after being elected.

4.2.1.4.1   Number of Chambers

A system with one chamber is frequently associated with authoritarian governments. Despite the fact that this system appears to be obligatory in unitary states, there appears to be a general trend toward two chambers in emerging democracies, particularly in larger unitary countries. In the United Kingdom and other European countries, monarchies have insisted on the representation of both aristocrats and commoners, resulting in a bicameral system. Equally applicable to the United States. The distinct states needed representation; thus, two chambers were established. Whatever the number of chambers, the government must determine it based on historical, cultural, and political considerations.

(a) Unicameral Chambers

A government with a single legislature is called a unicameral system. Unicameral is a Latin word that defines a legal system with one chamber. A small unitary state with a long history of democracy employs the unicameral system. Until Greece, New Zealand, and Peru switched from bicameral to unicameral systems in the 20th century, unicameral systems grew in popularity. Costa Rica, Portugal, Hungary, Iceland, Sweden, Slovenia, Uganda, and New Zealand are examples of nations having unicameral systems (Kenton, 2021).

Despite the fact that the constitutional configurations of countries that have migrated to democratic systems over the past decade have varied significantly, one pattern that appears to be fairly consistent is the preference of smaller nations for unicameral legislatures. This has occurred in all of the minor Eastern European nations outside Ukraine. In several instances, election provisions have permitted a single chamber to represent numerous interests. The Slovenian constitution, for example, grants certain ethnic minorities one seat each in the unicameral National Assembly. In Uganda, seats in the unicameral legislature are designated for women from each of the country's 39 districts, as well as for the disabled and wage earners (Kenton, 2021).

A unicameral system has the ability to expedite the passage of new laws because there is no need for discrepancies between the two houses to be addressed. There is the possibility for more accountability under a unicameral system because only one body is responsible for legislation, and it is less expensive to operate one body with fewer legislators (Baldi, 1999; Kreppel, 2014). Under a unicameral government, it would be easier for special interest groups to influence the legislature. Legislation suggested by

the ruling elite can be enacted even if the majority of the populace opposes it. All legislative members talk and vote as a group. Since the unicameral system comprises fewer costs and has shorter legislative sessions, operating expenses can be lowered as well (Kenton, 2021).

(b) Bicameral Chambers

The origin of the term bicameral is Latin *"bi"* means two and *"camera"* means room (Kenton, 2021) Consequently, a bicameral system refers to a government with two houses, namely, the House of Representatives and the Senate. Some (Baldi, 1999; Kreppel, 2014) refer to them as the lower and upper houses. Each member of the Lower House is elected based on the population ratio, so that each district or region is represented by an equal number of people. In contrast to the upper house, members of the lower house are selected through inheritance, appointment by various authorities, and direct and indirect election (Kreppel, 2014). As is the case with the United States Senate, Germany's Bundesrat, and India's Rajya Sabha, representation in the upper house may reflect political divisions.

Bicameral systems are more prevalent in larger countries and practising federation, the system's two-tiered power structure, in which subdivisions are designed to correspond to other significant societal units. In India and Ethiopia, upper houses are used to represent various ethnic, religion, or tribal groups. In a bicameral system, each chamber of the legislature can have its own organisation, rules, method of electing members, and legislative and oversight powers over the other arms of government (Kenton, 2021).

A government has two legislatures for both practical and historical reasons. For practical reasons, a bicameral system should function as part of a larger system of checks and balances that balances the authority of various government or social institutions. By splitting power within the legislative branch, bicameralism prevents the legislative branch from having too much power; it serves as a sort of check on the legislative branch. Historically, bicameralism has served to balance the authority of various socioeconomic classes or groupings. In mediaeval Europe, the bicameral system emerged. Sharp class differences between the nobility, clergy, and common people meant that each group needed its own set of representatives to advise the king on related issues and speak for their own interests (Kenton, 2021).

4.2.1.5   Regional Authority

According to Hooghe et al. (2016), authority is legitimate power and relational, as A has authority over B with respect to some set of actions. B regards A's command as legitimate and correspondingly has an obligation to obey. Authority implies power, but power does not imply authority. Whereas power is evidenced in its effects irrespective of their cause, authority exists only to the extent that B recognizes an obligation resting on the legitimacy of A's command. Hooghe et al. (2016) develop a measurement of authority followed by the concepts of federalism.

Federalism emphasises the fundamental constitutional option between a unitary system and a federation system. A unitary system has a central sovereign that exercises authority, whereas a federation system distributes authority among regional governments and a central government in such a way that each type of government has some activities on which it makes final decisions (Hooghe et al., 2016). The unitary

vs. federation dichotomy highlights the inherent contradiction between *self-rule* and *shared rules* in a composite government. Transitioning from a unitary to a federation government (or vice versa) is a difficult feat that few nations accomplish. The literature on federalism provides considerably less information about variations among unitary countries than among federation countries. Over the past six decades, unitary countries have become significantly more diverse, while the contrast between unitary and federation nations has faded. Lastly, federalism is involved with the highest levels of subnational government, but many countries have two or three levels of government between the central and local levels (Hooghe et al., 2016).

Elazar (1987) identifies federalism as the territorial allocation of authority, defining it as "*self-rule* plus *shared rule*." No matter how the central and constituent units may share certain powers at any given time, neither can be deprived of the authority to participate in their exercise without their assent (p. 166). In a similar vein, Riker (1964) defines federalism as a method of political organisation in which government operations are split between central and regional governments in such a way that each kind of government has constitutionally guaranteed autonomy to make final decisions.

According to Burgess (2006), the fundamental design of all federations is "*self-rule* plus *shared rule*" through the constitutional distribution of authority between the central government for common purposes and the constituent units for local purposes and the preservation of distinct identities and interests. Written constitutions are able to coordinate the division of authorities and responsibilities (specific amendment procedures and judicial review). The specific structure and allocation of the distribution of powers have always varied with each federation based on its particular

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circumstances (Watts, 1999, p.35). The greater the degree of homogeneity in a society, the more power has been delegated to the central government. Conversely, the greater the degree of heterogeneity, the more power has been delegated to constituent units of government. Burgess (2006) acknowledged that India and Malaysia are extremely heterogeneous societies, but the Indian Constitution and the Federal Constitution of Malaysia 1963 are clear indications that the distribution of powers has been altered to suit the preferences of the central government. This has led to a unitary constitution instead of the federation one.

Based on the concepts of federalism highlighted, the domain of *self-rule* and *shared rules* became a vital and elegant measurement framework for Hooghe et al. (2016) to develop crucial data, namely the Regional Authority Index (RAI). Thus, the concept of regional authority described by Hooghe et al. (2016) became very detailed and useful to understand regional power from different forms of self-rule in the region as well as shared rules in the country as a whole.

4.2.1.5.1 Self-Rule

The concept of self-rule entails granting regions the exclusive autonomy to decide their own rules and policies (Mueller, 2017). Hooghe et al.'s (2016) concept of self-rule is more extensive and thorough; it refers to the power exerted by a subnational government on its own territory and is measured by five attributes: institutional depth, policy scope, fiscal autonomy, borrowing autonomy, and representation.

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(i)   Institutional Depth

This attribute measures the extent to which regional governments are autonomous in making policy decisions. Hooghe et al. (2016) measured institutional depth with a score ranging from 0 (no general-purpose administration functioning at the regional level) to 3 (not deconcentrated, general-purpose, administration not subject to central government veto) (see Table 4.4). According to Hooghe et al. (2016), to get a score greater than zero, a region must have a functional administration and a general purpose. Thus, the score depends on the extent to which a regional government is autonomous rather than deconcentrated. Institutional depth measures the capacity of regional administrations to make independent policy decisions. Deconcentrated regional administration has physical government institutions, a bureaucracy, an executive, and a budget but remains subordinate to the centre. On the other hand, decentralised regional governments can make policy decisions more independently and are not subject to the veto of the central government.

The terms of deconcentration or devolution are commonly used to indicate the degree of decentralisation power given to the subnational government. The notion of deconcentration refers to the transfer of power and responsibility from the central government to the subnational level by maintaining a hierarchical level of accountability. Deconcentration viewed as the first step of the new government in distribution of power to improve service delivery.

While devolution is the statutory granting of power transfer from the central government to subnational level, i.e., regional, state or local units. Devolution can be financial, for example, the budget is formerly administered by the central government,

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and now given to the provinces via the relevant legislative powers. Devolution, however differs from federalism, in that devolved power to subnational is temporary and ultimately resides in the central government. Therefore, this devolved state remains a de jure unitary. The central government may repeal or alter legislation establishing a parliament or a devolved assembly in the same manner as other statutes. As in the United Kingdom, the devolved institutions of Scotland, Wales, and Northern Ireland are endowed with substantial powers and, at least in theory, national sovereignty, but it remains vested in the Westminster parliament (The World Bank, 2008).

(ii)   Policy Scope

This attribute assesses the regional government's authority over the policies within its jurisdiction. Hooghe et al. (2016) broke down the policy areas of regional authorities into the following five areas:

a.   economic policy: regional development, public utilities, transportation including roads, the environment, and energy

b.   cultural-educational policy: schools, universities, vocational training, libraries, sports, and cultural centres

c.   welfare policy: health, hospitals, social welfare (e.g., care homes for the elderly, poor relief, social care), pensions, and social housing

d.   institutionally coercive policy: residual powers, police, own institutional set-up, control over local government;

e.   community membership policy: immigration, citizenship, and right to domicile.

Hooghe et al. (2016) assessed those regional responsible policies ranged from 0 (very weak authoritative competence in a) economic policy; b) cultural-educational policy; c) welfare policy; and d) one of the following: residual powers, police, establishment of own institutions, local government) to 4 (authoritative competence in d) and at least two of a), b), or c) plus powers over immigration or citizenship) (see Table 4.4).

(iii)   Fiscal Autonomy

Fiscal autonomy measures the extent to which the regional authority is empowered to set the tax base and rate for its citizens. This attribute relates to a government's authority to establish tax regulations. Hooghe et al. (2016) rate taxation autonomy over the populace from 0 (the central government determines the base and rate of all regional taxes) to 4 (the regional government sets the base and rate of at least one major tax) (see Table 4.4).

(iv)   Borrowing autonomy

Borrowing autonomy evaluates restrictions imposed by the central government on the capacity of regional governments to borrow flexibly on local or foreign financial markets. Hooghe et al. (2016) assess the extent to which provincial governments can borrow based on the range from 0 (Provincial governments do not borrow (eg, centrally imposed regulations prohibit borrowing) to 3 (provincial governments can borrow without centrally imposed restrictions) (see Table 4.4).

(v)   Representation

According to Hooghe et al. (2016), representation evaluates the extent to which a region has an independent legislature and executive. This attribute determines whether

the regional government has an elected legislature; whether the legislature is elected directly or indirectly; and whether the regional executive is appointed by the central government, co-appointed by the central government, or elected by the citizens or the regional assembly.

Hooghe et al. (2016) measured representation in terms of assembly and executive. An assembly is a self-standing institution where a permanent membership using parliamentary procedure exercises legitimate authority. The regional assembly exercises legitimate powers for the territorial jurisdiction. It can't be a committee or other part of the national assembly that isn't part of the main body. The score for the assembly ranges from 0 (the region has no regional assembly) to 2 (the region has a directly elected assembly) (see Table 4.4). The executive is the authority that puts the rules of general applicability into effect, and the regional chief executive is either appointed by the central government, the regional government, or a dual executive consisting of the central and regional governments. Hooghe et al. (2016) gave the executive a score between 0 (the region has no regional executive or the regional executive is chosen by the central government) and 2 (the region has an executive chosen by the regional assembly or directly elected), putting the total score for the representative attribute between 0 and 4 (see Table 4.4).

All five concepts of the self-rule's Hooghe et al. (2016) had an aggregation score of 18 points, as shown in Table 4.4.

Table 4.4

Regional Authority Definition of Self-Rule and The Aggregation Score

Dimension		Attribute	Definition
Authority	Self-rule 0-18		The authority exercised by a regional government over those who live in the region
		Institutional depth 0-3	The extent to which a regional government is autonomous rather than deconcentrated.
			0 No functioning general purpose administration at regional level.
			1 Deconcentrated, general purpose, administration.
			2 Non-deconcentrated, general purpose, administration subject to central government veto.
			3 Non-deconcentrated, general purpose, administration not subject to central government veto.
		Policy scope 0-4	The range of policies for which a regional government is responsible.
			a) economic policy; b) cultural–educational policy; c) welfare policy; d) one of the following: residual powers, police, own institutional set–up, local government.
			0 Very weak authoritative competencies in a), b), c), or d)
			1 Authoritative competencies in *one* of a), b), c), or d).
			2 Authoritative competencies in at least *two* of a), b), c), or d).
			3 Authoritative competencies in d) and at least *two* of a), b), or c).
			4 Criteria for *3 plus* authority over immigration, citizenship, right of domicile.
		Fiscal autonomy 0-4	The extent to which a regional government can independently tax its population.
			0 Central government sets the base and rate of all regional taxes.
			1 Regional government sets the rate of minor taxes.
			2 Regional government sets the base and rate of minor taxes.
			3 Regional government sets the rate of at least one major tax: personal income, corporate, value added, sales tax.
			4 Regional government sets base and rate of at least one major tax.

Borrowing autonomy 0-3	The extent to which a regional government can borrow.		
	0	The regional government does not borrow (e.g. centrally imposed rules prohibit borrowing).	
	1	The regional government may borrow under prior authorization (*ex ante*) by the central government and with one or more of the following centrally imposed restrictions	
		a.	golden rule (e.g. no borrowing to cover current account deficits)
		b.	no foreign borrowing or borrowing from the central bank
		c.	no borrowing above a ceiling
		d.	borrowing is limited to specific purposes.
	2	The regional government may borrow without prior authorization and under one or more of a), b), c), or d).	
	3	The regional government may borrow without centrally imposed restrictions.	
Representation 0-4	The extent to which a region has an independent legislature and executive.		
	Assembly:		
	0	No regional assembly.	
	1	Indirectly elected regional assembly.	
	2	Directly elected assembly.	
	Executive:		
	0	Regional executive appointed by central government.	
	1	Dual executive appointed by central government and regional assembly.	
	2	Regional executive is appointed by a regional assembly or directly elected.	

Note. Definition and Score by Hooghe et al. (2016)

4.2.1.5.2   Shared Rule

Muller (2017) describes three distinct manifestations of territorial power as shared rule. First is the number of subnational entities that can engage in community-wide decision-making. The second is horizontal cooperation among constituent units (which does not involve the federal government). Third is the central government's shared responsibility. This stems from the idea that when territories come together in a federal union, they delegate some powers to the new entity and keep others in their exclusive jurisdiction (self-rule). Hooghe et al. (2016), on the other hand, define shared rules as the authority of subnational governments co-exercising in the country as a whole in law-making, executive control, fiscal control, borrowing control, and constitutional reform.

(i)   Law-making

Hooghe et al. (2016) evaluate the extent to which regional representatives co-determine national legislation, assigning a score ranging from 0 (no regional representation) to 2 (regional representation with veto rights over national laws impacting their region) (refer Table 4.5). This law-making attribute assesses the role of regions in structuring representation at the national level (i.e., in a second legislative chamber); whether regions have majority or minority representation there; and the legislative authority of the second chamber (Hooghe et al., 2016). Typically, the upper or second chamber is the legislative arena where regions or their respective governments have direct influence on national law. Most upper chambers came to function as bulwarks against the one-person, one-vote premise. In 2010, thirty-six of the eighty-one countries observed by Hooghe et al. (2016) had bicameral legislatures,

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while forty-three had unicameral. In 2010, 19 of these chambers represented territorial communities.

(ii)   Executive control

According to Hooghe et al. (2016), this attribute measures the extent to which a regional government co-determines national policy in intergovernmental meetings, with scores ranging from 0 (no routine bilateral or multilateral meetings between central and regional governments to discuss national policies) to 2 (routine bilateral and multilateral meetings with binding authority) (see Table 4.5). The executive control attribute examines whether regional governments hold regular meetings with the central government, whether these meetings are advisory or have veto power. In the context of intergovernmental discussions, regional administrations can share executive authority with the federal government. For this dimension to be met, such gatherings must be scheduled, not ad hoc. For such meetings to receive the maximum two points, they must be authoritative, i.e., they must achieve decisions that formally bind the participants. The criteria for bilateral and multilateral executive control are identical. According to Hooghe et al. (2016), executive control in Germany from 1969 meets all of the criteria for a perfect score. Regional and central government meetings are very well organized, cover a wide range of policy issues, and lead to agreements that can be enforced by the law (Hooghe at el., 2016).

(iii)   Fiscal control

Hooghe et al. (2016) evaluate the extent to which regional representatives co-determine the distribution of national tax revenues, assigning a score ranging from 0 (no regional consultation) to 2 (consultations with veto powers) (see Table 4.5). In

fiscal control, regions negotiate or exercise veto power over the territorial allocation of national tax income. Taxation is a unique instance of legislative and executive shared rule. Hooghe et al. (2016) evaluate regional fiscal shared rule as the role of regional governments in legislation or executive regulation on tax collection and distribution. Tax collection and distribution comprises tax rates, tax bases, intergovernmental transfers, grants, and annual or multi-year central budgets. According to Hooghe et al. (2016), regional governments have two options for influencing the generation and distribution of national tax revenues; (1) direct access via intergovernmental meetings and (2) indirect access via a national chamber with regional participation. Hooghe et al. (2016) elaborate, 1 score is given if regional governments engage in negotiations over the distribution of tax revenues via any route, and 2 score are given if regional governments are given a veto over the process. The legislative route is worth 1 score if the legislature has authority over the distribution of tax revenues, whereas 2 score given via legislative route if the legislature has a vote over the distribution of tax revenues.

(iv)   Borrowing control

This attribute evaluates the extent to which a regional government co-determines subnational and national borrowing limitations, with scores ranging from 0 to 2, which correspond to fiscal control (see Table 4.5). The control over borrowing determines whether regional governments have no role, a consultative role, or a veto on the rules that permit borrowing. A specific instance of executive control is the shared rule on borrowing. Hooghe et al. (2016) construct scoring rules concurrently with evaluating the representation of regions in meetings with the central government, institutionalised and making decisions. This attribute comprises subnational and national debt

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management or borrowing. It addresses fiscal policy insofar as fiscal decisions affect borrowing, and does not cover raising taxes or expenditures.

(v)   *Constitutional reform*

This attribute is critical in determining the extent to which regional representatives co-determine constitutional change, with scores ranging from 0 (the central government or national electorate can unilaterally reform the constitution) to 4 (one or several regional governments or their representatives can veto constitutional change). Reform of the constitution evaluates the authority of a regional government to propose, delay, or block rule changes. According to Hooghe et al. (2016), the coding scheme provides greater weight to regional governments (or their representatives in the legislature) than to other regional actors (electorates or regionally elected representatives), and it rates binding authority (veto power) as more authoritative than non-binding participation. For multilateral control over constitutional reform: score 1 if regional electorates or their representatives can raise the barrier for constitutional change; score 2 if regional governments can raise the barrier for constitutional change; score 3 if regional electorates or their representatives can veto constitutional change; and score 4 if regional governments can veto constitutional change (see Table 4.5).

All five concepts of the shared rules' Hooghe et al. (2016) had an aggregation score of 12 points, as shown in Table 4.5.

Table 4.5

Concept of Shared Rules and The Aggregation Score

Dimension	Attribute	Definition		
Authority	Shared Rules (0-12)	The authority exercised by a regional government or its representatives in the country as a whole.		
		Law Making 0-2	The extent to which regional representatives co-determine national legislation.	
			0.5	Regions are the unit of representation in a national legislature.
			0.5	Regional governments designate representatives in a national legislature.
			0.5	Regions have majority representation in a national legislature based on regional representation.
			0.5	The legislature based on regional representation has extensive legislative authority.
		Executive Control 0-2	The extent to which a regional government co-determines national policy in intergovernmental meetings.	
			0	No routine meetings between central and regional government to negotiate policy
			1	Routine meetings between central and regional governments without legally binding authority.
			2	Routine meetings between central and regional government with legally binding authority.
		Fiscal Control 0-2	The extent to which regional representatives co-determine the distribution of national tax revenues.	
			0	Neither the regional governments nor their representatives in a national legislature are consulted over the distribution of national tax revenues.
			1	Regional governments or their representatives in a national legislature negotiate over the distribution of tax revenues, but do not have a veto.
			2	Regional governments or their representatives in a national legislature have a veto over the distribution of tax revenues.

Borrowing Control 0-2		The extent to which regional government co-determine subnational and national borrowing constraints.	
	0	Regional governments are not routinely consulted over borrowing constraints.	
	1	Regional governments negotiate routinely over borrowing constraints but do not have a veto.	
	2	Regional governments negotiate routinely over borrowing constraints and have a veto.	
Constitutional Reform 0-4		The extent to which regional representatives co-determine constitutional change.	
	0	The central government or national electorate can unilaterally reform the constitution.	
	1	A national legislature based on regional representation can propose or postpone constitutional reform, raise the decision hurdle in the other chamber, require a second veto in other chamber, or require a popular referendum.	
	2	Regional governments or their representatives in a national legislature propose or postpone constitutional reform, raise the decision hurdle in the other chamber, require a second veto in other chamber, or require a popular referendum.	
	3	A legislature based on regional representation can veto constitutional change; or constitutional change requires a referendum based on the principle of equal regional representation.	
	4	Regional governments or their representatives in a national legislature can veto constitutional change.	

Note. Definition and Score by Hooghe et al. (2016)

4.2.2   Decentralisation

Federalism is usually accompanied by decentralised government, which might lead one to confuse the two phenomena, but they are very distinctive (Baldi, 1999). Besides, it is not a necessary condition for decentralisation, nor is decentralisation a sufficient condition for federalism (Lijphart, 1984). In the meantime, Baldi (1999) asserts that "we can have decentralisation in the absence of federalism, and federations, like unitary systems, can be classified as more or less decentralised (and even centralized)" (p. 12). Basically, the gamut of federalism expresses a principle of equality, which no level of government can subordinate to the other regardless of the amount of power distributed. Decentralization is also developed in systems where the periphery is subordinated to the centre.

4.2.2.1   Fiscal Decentralization

Fiscal decentralisation refers to the process of altering the structure of fiscal federalism by devolving powers to lower levels of government. Whereas fiscal federalism generally refers to the structure of financial and broader relationships between the central and subordinate levels of government, also referred to as intergovernmental fiscal relationships. More precisely, fiscal decentralisation is the devolution of taxing and spending powers from the control of central government authorities to the periphery or government authorities either at the regional, state, provincial, or municipal level.

It noted that the idea of fiscal federalism is relevant to all kinds of government, whether unitary or federal. The concept of fiscal federalism is associated with fiscal decentralisation in officially declared federations only; it is also applicable even to

non-federated countries (having no formal federal constitutional arrangement) in the sense that they encompass different levels of government which have de-facto decision-making authority. It means that fiscal federalism is a set of principles that can be applied to all countries attempting fiscal decentralisation. In fact, fiscal federalism is a general normative framework for the assignment of functions to the different levels of government and appropriate fiscal instruments for carrying out these functions. While fiscal federalism constitutes a set of guiding principles and a guiding concept that help in designing financial relations between the national and subnational levels of the government, fiscal decentralisation, on the other hand, is a process of applying such principles. From unitary to federation, these continuum systems of government differ in the manner in which such principles are applied. Application differs because unitary and federation governments differ in their political and legislative contexts and thus provide different opportunities for fiscal decentralisation. Therefore, does a federal system facilitate decentralisation better than unitary systems? Is the success of decentralisation and development efforts greater in a federal rather than a unitary system, or is it independent of the government structure?

As a subfield of public economics, fiscal federalism is concerned with understanding which functions and instruments are best centralised and which are best placed in the sphere of decentralised levels of government (Oates, 1999). In other words, it is the study of how competencies (expenditure side) and fiscal instruments (revenue side) are allocated across different (vertical) layers of the administration. An important part of its subject matter is the system of transfer payments or grants by which a central government shares its revenues with lower levels of government. These are important parts of studies on intergovernmental fiscal relations, which allowed underpinning

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theories to be applied as well. The traditional theories of fiscal federalism, in the first instance, focused particularly on industrial countries such as the federation of the United States, Germany, Canada, and Switzerland, and have grown rapidly over the past few decades to include all parts of the developing and transition economies in both federal and unitary form. Among the popular theories that underlie the study of fiscal federalism are shown in Table 4.6.

Table 4.6
Theories of Fiscal Federalism

Scholars	Theory
Musgrave (1959)	Originally developed 'Theory of fiscal federalism' - concerns about division of public sector functions and finances in a logical way among multilayer of government. Fiscal function: Stabilization, Distribution and Allocation.
Oates (1972, 2006, 2008)	The 'Decentralization Theorem' - each public service should be provided by the jurisdiction having control over the minimum geographic area that would internalize benefits and costs of such provision. Practical implications of this theorem again require a large number of overlapping jurisdictions.
Hunter (1977)	Vertical Imbalance is the difference values of coefficients (V) between 0 and 1; $0 =$ absolute central control over subnational government, $1 =$ subnational government are autonomous in their decision making. The higher of V means more balanced in expenditure and revenue power between central and subcentral government.

Most theoretically driven analysis of fiscal federalism has begun with fiscal function among the levels of government. Then, based on Oates' theorem, they expanded to decentralisation and developed the most widely used typology of intergovernmental grant. However, studies concerned with local deficit creation, unconstrained and undisciplined local borrowing, debt management policies at the lower-level governments and extremely non-cooperative collusive behaviour by subnational governments are lacking theory in a fiscal federalism context, while empirical work

does not provide support for the validity of these concerns. Whereas the construction of public debt research generally has widespread acceptance and significant attention regarding government credits.

What is the best arrangement of fiscal responsibility between the different levels of government? This question is simple yet very complex, given the wide variety of systems actually applied in different countries and at different times in specific countries. In fact, there is no ideal system of fiscal arrangement in a certain country, whether unitary or federated, because everyone faces different problems and different perspectives. However, fiscal federalism requires coordinating and, at the very least, becoming some basic broad guidelines on how fiscal function can best be carried out through expenditure responsibility, assignment of taxing power, intergovernmental transfer, and borrowing powers. Ideally, these are the four pillars of fiscal arrangement (Bird, 2000) of each level of government, which are designed to meet not only macroeconomic and public finance goals that emphasise efficiency, transparency, and accountability, but also to maintain national unity, political stability, and justice to individuals and areas of government.

4.2.2.1   Subnational Revenue

In the federalism system, taxation is the most important source of government revenue. Once expenditure assignment has been agreed on, tax assignment and design of transfers become critical elements in matching expenditure needs with revenue means at various levels of government. The taxation responsibility may be allocated in accordance with the authority and ability of central and subnational governments, as shown in Table 4.7, based on economic principles and criteria.

Table 4.7

Basis of Tax Assignment

Type of tax	Determination of		Collection & Administration	Other Details
	Base	Rate		
Customs	C	C	C	International trade taxes
Corporate income	C	C	C	Stabilization tool
Personal income	C	C,S,L	C	Distribution/Stabilization tool
Resource taxes				
Resource rent (profits, income) tax	C	C	C	Highly unequally distributed tax bases
Royalties, fees, charges; severance taxes; production, output, and property taxes	S,L	S,L	S,L	Benefit taxes/charges for state-local services
Conservation charges	S,L	S,L	S,L	To preserve local environment
Wealth taxes (taxes on capital, wealth, wealth transfers, inheritances, and bequests)	C	C,S	C	Distribution tool
Payroll	C,S	C,S	C,S	Benefit charge - social security coverage
Multistage sales taxes value-added tax *VAT*	C	C	C	Border tax adjustments possible under central assignment - stabilization tool
Single−stage sales taxes (manufacturer, wholesale, retail)				
Option A	S	S,L	S,L	Higher compliance cost
Option B	C	S	C	Harmonized, lower compliance cost
"Sin" taxes				
Excises on alcohol and tobacco	C,S	C,S	C,S	Health care a shared responsibility
Betting, gambling	S,L	S,L	S,L	State and local responsibility
Lotteries	S,L	S,L	S,L	State and local responsibility
Race tracks	S,L	S,L	S,L	State and local responsibility
Taxation of "bads" Carbon	C	C	C	To combat global/national pollution

BTU taxes	C,S,L	C,S,L	C,S,L	Pollution impact: national, regional, local
Motor fuels	C,S,L	C,S,L	C,S,L	Tolls on federal/provincial/local roads
Effluent charges	C,S,L	C,S,L	C,S,L	Deal with interstate, local pollution issues
Congestion tolls	C,S,L	C,S,L	C,S,L	Tolls on federal/provincial/local roads
Parking fees	L	L	L	To control local congestion
Motor vehicles				
Registration, transfer taxes, and annual fees	S	S	S	State responsibility
Driver's licenses and fees	S	S	S	State responsibility
Business taxes	S	S	S	Benefit tax
Excises	S,L	S,L	S,L	Residence-based taxes
Property	S	L	L	Completely immobile factor, benefit tax
Land	S	L	L	Completely immobile factor, benefit tax
Frontage, betterment	S,L	L	L	Cost recovery
Poll	C,S,L	C,S,L	C,S,L	Payment for services
User charges	C,S,L	C,S,L	C,S,L	Payment for services received

Note: C - Central Government, S - State Government, L - Local Government. Adapted from Shah (1991).

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In brief, the central government mainly relies on income taxes and value-added tax (VAT). As emphasised earlier, integrated income taxes (personal and corporate) are a mobile factor, and taxes are levied on redistributive grounds. Since the central government assumes primary responsibility for redistribution, a progressive personal income tax is suitable for imposition by that government. In the meantime, the VAT also should be centralised by the top tier of government for the primary reason that administration would become hopelessly complicated if each local government were permitted to set its own standards for creditable and non-creditable transactions, set its own tax rates, and follow its own methods of administration. Even if the VAT is held to a uniform national rate and base structure, it is not suitable for sharing on a derivation basis, i.e., a system whereby each local government retains all or a share of what is collected within its boundaries. This is because some resource-rich and processing areas would benefit greatly, while those who export would be in the zero-rated zone and would collect little net revenue (Bahl & Linn, 1994).

By contrast, state governments rely on a mixture of sales and income taxes, and local governments (municipalities) rely heavily on property taxes (including land taxes) for revenue. The residential property tax is perhaps the ideal local tax in many ways. It is a rough form of benefit charge, since landowners are the primary beneficiaries of most local services. Bahl and Linn (1994) pointed out that the property tax is commonly shared. This enables the national government to control the (difficult) administration of the tax, maintain some degree of nationwide uniformity in the implementation of the tax, and control rate-setting, which is everywhere a sensitive political issue. Property transfer taxes are also shared with local governments and can be a significant source of revenue. On the other hand, few countries in the world approach this intensity

of use of the property tax. Moreover, there is a major problem with the valuation of property, especially where the tax base is defined to include improvements as well as land. Finally, many, if not most, governments are loath to strictly enforce the property tax by seizing property. The result is that the yield from the property tax is rarely more than one percent of total national revenues (Bahl & Linn, 1994).

Although tax assignment can be undertaken independently of expenditure assignment, common practise in developing countries shows that the advantages of centralised tax administration and decentralised provision of public services become apparent when tax assignment reflects anticipated spending. Such arrangements prevent the overdependence of lower levels of government on intergovernmental transfers, which can otherwise distort local spending priorities. Where theoretical guidance on tax assignment is unclear, expenditure assignment can provide a powerful argument for assigning responsibility to the government with the greatest need for more money. It determines the volume of proper financial resources which can be used by the member states and municipalities themselves away from financial transfers, thus the extent of their financial independence. Yet, the question of fiscal sovereignty simultaneously raises those of tax coordination and harmonization. In that case, we are back to the essence of decentralization, where subnational governments should be given the authority and responsibility to own-finance local services at the margin and to tax adequately to support a decentralised public expenditure.

The general principles of tax assignment to different levels of government are listed in fiscal federalism and local government finance literature as a good criterion and

consideration on which taxes can adequately be assigned to the subcentral level and remain at the central level.

i. The tax base assigned to subnational governments should be immobile in order to allow local authorities some freedom to vary rates without the base vanishing. Inter-jurisdictional mobility of the tax base makes taxation of mobile factors difficult for subnational governments. For this reason, general consumption taxes are found at subnational only where geographical areas are very large (for example, Canada and the United States). Thus, the more mobile a tax base, the greater the presumption to keep it at the national level (central government).

ii. Redistributive taxes should be assigned to the central government. Taxes imposed on mobile factors for redistribution purposes might result in an inefficient jurisdictional allocation of the factors of production. Uniform redistributive taxes minimise locational distortions of economic activities.

iii. Services provided by subnational governments should, to the extent possible, be financed through user charges and other local fees and taxes that are related to benefits. Efficient allocation of resources requires subnational governments to recover their expenses from the beneficiaries of their services. Examples of benefit-related revenues include taxes levied on motor vehicles and fuel, as well as construction fees.

iv. Local taxes should be able to raise sufficient revenue to avoid large vertical fiscal imbalances. The yield should ideally be buoyant over time and should not be subject to large fluctuations. Thus, taxes subject to cyclical fluctuations need to be protected by a system of counter-cyclical rate adjustments in order to avoid subnational government exploitation of fiscal power.

v.   Taxes levied on tax bases that are unevenly distributed should be centralized. An uneven distribution of tax bases among subnational governments forces the residents of one subnational area to bear the economic burden of taxes imposed by another jurisdiction. Taxation of natural resources is the best example of this type of taxation practice.

vi. The revenue yield should be stable and predictable over time. vii. Subnational taxes should be visible to encourage subnational government liability.

vii. Taxes assigned to the local level should be fairly easy to administer. Or, in other words, the more important economies of scale in tax administration are for a given tax, the stronger the argument for leaving the tax base for that tax to the national level. Economies of scale may depend on data requirements such as a national tax payer identification number and computerization.

(Oates, 1972; Musgrave, 1983; Norregaard, 1997; Bird, 2000).

Taxation responsibility may be allocated in accordance with the authority and ability of central and subnational governments based on economic principles and criteria. In brief, the central government mainly relies on income (also payroll) taxes and value-added tax (VAT). As earlier highlighted, integrated income taxes (personal and corporate) are mobile factors, and taxes are levied on redistributive grounds. Since the central government assumes primary responsibility for redistribution, a progressive personal income tax is suitable for imposition by that government. In the meantime, the VAT must also be centralised by the top tier of government for the primary reason that administration would become hopelessly complicated if each local government were permitted to set its own standards for creditable and non-creditable transactions, set its own tax rates, and follow its own methods of administration. Even if the VAT

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is held to a uniform national rate and base structure, it is not suitable for derivation sharing, i.e., a system in which each local government retains all or a portion of what is collected within its borders. This is because some resource-rich and processing areas would benefit greatly, while those who export would be in the zero-rated zone and would collect little net revenue (Bahl & Linn, 1994).

By contrast, state governments rely on a mixture of sales and income taxes, and local governments (municipalities) rely heavily on property taxes (including particular land taxes) for revenue. The residential property tax is perhaps the ideal local tax in many ways because landowners are the primary beneficiaries of most local services. It is a rough form of benefit charge. Bahl and Linn (1994) pointed out that the property tax is commonly shared. This enables the national government to control the (difficult) administration of the tax, maintain some degree of nationwide uniformity in the implementation of the tax, and control rate-setting, which is everywhere a sensitive political issue. Property transfer taxes are also shared with local governments and can be a significant source of revenue. On the other hand, few countries in the world approach this intensity of use of the property tax. Moreover, there is a major problem with the valuation of property, especially where the tax base is defined to include improvements as well as land. Finally, many, if not most, governments are loath to strictly enforce the property tax by seizing property. The result is that the yield from the property tax is rarely more than one percent of total national revenues.

In practise, certain taxes are assigned appropriately in accordance with the theory's recommendations. As shown in Table 2.9, a striking feature of taxing composition among jurisdictions revealed significant variation in taxation systems across unitary

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and federation countries. In Canada, the power-separation system, or dual model of federation, displays the potential to avoid welfare-inefficient outcomes, despite its lack of joint decision-making. This might result in a different handling of taxation policy. Each territorial government decided unilaterally on its tax strategy. According to the Canadian constitution, the central government has unlimited taxing powers, while the state is limited to levying direct taxes. The personal income tax and the corporate tax are predominantly imposed and collected by the central government but remitted in part to the state. As regards sales taxes, both central and state governments levy their own taxes independently, which is why central sales taxes were limited to only a few products while state sales taxes applied to most consumer goods (before 1991). However, in 1991, the central government replaced its old manufacturer's sales tax with a broader tax base, i.e., the Goods and Services Tax (GST), to harmonise their taxes along the same lines as the tax collection agreements (Braun, Bullinnger & Wälti, 2002; Krelove, Stotsky & Vehron, 1997).

In this regard, it seems the design of decentralised taxation is far more difficult in practise than the principles of the theory of decentralised expenditure as discussed previously. As noted by Norregaard (1997), a decentralised fiscal system cannot function satisfactorily without the necessary administrative capabilities at the subnational level (only if state and local governments are given at least one major source of revenue and have autonomy to determine the revenue). For obvious reasons, the more complicated the tax in question, the stronger the case for centralised taxation at the highest level of government. Furthermore, Mikesell (1995) has claimed that the role of tax must be extensively dominated by the central government to ensure stability and distribution are achieved at the macro level. Although the theory of fiscal

federalism provides some guidelines for dividing taxes between jurisdictions, most countries have chosen different practices. Common taxation seems to broadly take Musgrave's economic criteria according to which the central government should administer a mobile tax (income tax) production tax (value added tax) or a tax bases are unevenly distributed.

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4.2.2.2   Subnational Expenditure

For expenditure assignment, subnational governments are responsible for specific services for people who live in that state or town, such as streets, water and sewerage, refuse disposal, fire and police services, and sometimes even education and social welfare. while the central government is responsible for national services such as national defence, other national public goods and services, and economic affairs. For three reasons, this allocation of spending is necessary. First, certain goods have non-rival consumption within an entire country. Therefore, the level of service, such as through defence and macroeconomic policies, is uniform. Decentralisation would lead to an inefficient allocation of resources. Second, when significant economies of scale are present, decentralised administration can be inefficient, depending on the function being considered and the size of the country. Third, different policies and levels of service between jurisdictions can cause people and money to move in ways that aren't good (Ahmad, Hewitt, and Ruggiero, 1997).

Table 4.8 presents an assignment of major public services based on the theoretical considerations discussed above. It shows that a significant number of major services would be suitable for concurrent assignment to two or more levels of government. For these kinds of services, it's important to spell out clearly and precisely what each level

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of government is responsible for, to avoid duplication and confusion and to make sure

the voters know who to hold accountable.

Table 4.8

The Basis of Expenditure Assignment of Jurisdiction

Expenditure Category	Responsibility, Policy, Standards and Oversight	Provision and Administration
Defence	C	C
Foreign Affairs	C	C
International Trade	C	C
Monetary Policy	C	C
Currency Banking	C	C
Interstate Commerce	C	C
Transfer payments to persons	C	C
Subsidies to Business and Industry	C	C
Immigration	CC	C
Unemployment Insurance	C	CC
System of Airlines & Railways	C	C, S, L
Regulation	C	C, S, L
Natural Resources	C, S	C, S, L
Fiscal Policy	C, S, L	C, S, L
Parks and Recreation	C, S, L	S, L
Environment	C, S, L	S, L
Industry and Agriculture	C, S, L	S, L
Education	C, S, L	S, L
Health	C, S, L	S, L
Social Welfare	S, L	S, L
Police	L	L
Water, Sewerage, Refuse	L	L
Fire Protection		

Note. C - Central Government, S - State Government, L - Local Government. Adapted from Shah (1991).

The expenditure assignment is the crucial step in designing the fiscal decentralisation

system; otherwise, no concrete expenditure responsibilities are implemented

effectively and efficiently. In Latin America and Eastern Europe, most countries focus

on decentralising revenues and neglecting the assignment of expenditure

responsibilities, which leads to weak decentralised systems and fiscally overburdened

central governments. Finally, the decentralisation system became weak and the fiscal function was ineffective (Martinez-Vazquez, 1998). The lack of clarity in the definition of subnational responsibilities has a negative impact in three important respects. First, if the responsibilities are imprecise, the necessary corresponding revenues will remain poorly defined. Second, without clear responsibilities, subnational government officials might prefer to invest in populist projects which benefit them in the short run rather than in projects with a long-term impact on the region's economy (such as infrastructure, education, etc.). Third, there will be confusion over whether subnational expenditures represent local priorities or centrally determined programmes (Ebel & Yilmaz, 2002, p. 28).

Therefore, firmness and wisdom needed to implement and sharing the expenditure responsibility. In the industrial federations' countries, the share of subnational expenditure in total government expenditure varies; i.e., the local share in Australia is 7 percent, Switzerland 24 percent; the state share in Australia is 43 percent, Austria 14 percent. In Australia, local government (municipal) is of modest importance, but Switzerland is characterised by strong local governments that meet most expenditure from their own revenue and depend relatively little on transfers (Ahmad, Hewit & Ruggiero, 1997). Based on the traditional approach, spending responsibilities are more appropriately placed under the jurisdiction of the state government, as explained by Oates (1972) in the "Decentralization Theorem". However, the Central Government is also given exclusive authority to provide services within the national scope. For the allocation of expenditure assignment, local governments are assigned based on a benefit principle. On the other hand, local public goods such as municipal services often only benefit people who live in a given city or township; in these cases,

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decentralisation to the municipal level is feasible and responsible for place-specific services such as streets, water and sewerage works, refuse disposal, and fire and police services. Education and social welfare are frequently provided primarily by intermediate level (state) governments, and in some cases by the central government.

In contrast, centralised administration is exclusively required by the top tier of government to provide services of national scope. In a number of circumstances, Ahmad, Hewitt, and Ruggiero (1997) claimed that this was necessary for three reasons. First, certain goods have non-rival consumption within an entire country. Therefore, by definition, the level of service, such as through defence and macroeconomic policies, is uniform. Decentralization would lead to an inefficient allocation of resources. Second, when significant economies of scale are present, decentralised administration can be inefficient, depending on the function being considered and the size of the country. Third, undesirable population and capital movements can result from variations in policy and the level of provision between jurisdictions.

Holding to the most basic concepts in economic theory, an expenditure assignment of major public services based on theoretical considerations discussed earlier Table 4.8 shows that a significant number of major services would be suitable for concurrent assignment to two or more levels of government. For such services, it is important to specify clearly and precisely the roles of various levels of government to avoid duplication and confusion and to ensure accountability to the electorate.

In previous chapter, Table 2.8 shows the distribution of public expenditure experiences by level of government in selected unitary and federal countries. Given that the

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Decentralization Theorem and the Tiebout Model promise a partial solution in effective expenditure allocation, each industrial federation and unitary country vests the central government (with power) in national defence, other national public goods and services, and economic affairs. In a number of circumstances, entire industrial unitary countries are centralised in most areas of expenditure except environmental protection, housing and community amenities and recreation, culture and religion. whereas industrialised countries have shown variation in expenditure allocation. Based on the observed wide variety of expenditure patterns, it reflects varying social preferences among countries, coupled with little theoretical guidance regarding the cost and benefits of decentralization. In the most decentralised countries like Canada, Switzerland, and Australia, expenditure patterns are more flexible and often able to more closely react to what local residents want, particularly for mixed goods and services like social protection, education, and health.

4.2.2.3   Vertical Imbalance

A vertical imbalance occurs when the expenditure responsibilities of various levels of government are unequal to their own revenue (Shah, 1991; Ebel & Yilmaz, 2002; Ahmad & Craig, 1997). If the vertical imbalance is large, it means that the distribution of revenue between the central and subnational governments is not commensurate with the expenditure distribution functions between levels of government (Hunter, 1977). In order to provide goods and services that meet the welfare of society, fiscal federalism emphasises the balance of spending with the collection of revenue by the government. The theory of public finance states that government financing or finance is at an efficient level if the cost of providing the requested services is the same as the revenue obtained. However, in many instances, the revenue of each level of

government rarely matches the amount of expenditure. It means that if a lower tier of government decides to increase spending without raising assigned taxes, the vertical gap will widen. According to International Monetary Fund (as cited in Ebel & Yilmaz, 2002) reports from 1998, the issue of vertical imbalance is widespread in all regions, with Sub-Saharan Africa having the highest percentage recorded by the subnational government (see Figure 4.1). If the vertical imbalance is large, it means that the distribution of revenue between the Central and State governments is not commensurate with the distribution of expenditure functions between the two levels of government (Hunter, 1977).

Figure 4.1
Vertical Imbalance by Region in Percent
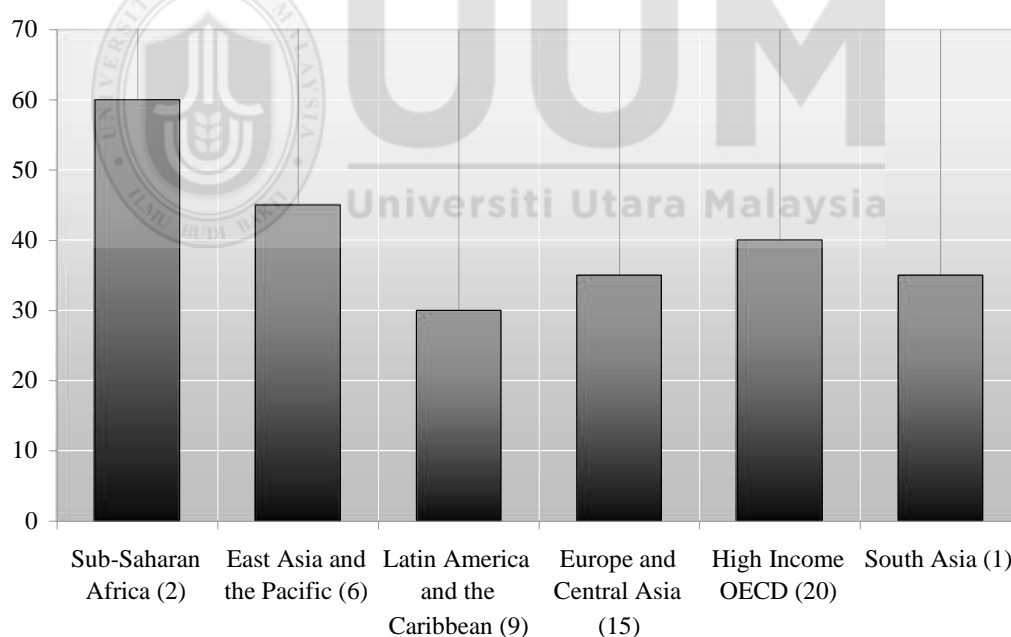
Note. Adapted from International Monetary Fund (as cited in Ebel & Yilmaz, 2002).

For the issue of vertical imbalance, it is important that the correspondence between expenditure responsibilities and the fiscal resources available to each level of

government be measured in some way. Using the conventional approach, the vertical

equilibrium *(V_b)* at the state level should: be

$$V_b = R_s - E_s = 0,$$

> V_b = vertical balance
>
> R_s = the countries' own revenues
>
> E_s = state expenditure

if, $E_s > R_s$, then $E_s - R_s = G + B$,

> G = grant
>
> B = net borrowing

By and large, Hunter (1977) has produced a comprehensive approach based on the

computation of coefficients of vertical balance *(V)*. The coefficient is calculated in the

following way:

$$V^1 = 1 - \frac{G_c + B}{E}$$

$$V^2 = 1 - \frac{G_o + G_c + B}{E}$$

$$V^3 = 1 - \frac{aT_o + bT_s + cR + dG_o + eG_c + fB}{E}$$

Where

> G_c = conditional grants
>
> G_o = unconditional grants
>
> B = net borrowing by State
>
> E = state expenditure (include transfer for local government)
>
> T_s = shared taxes
>
> T_o = taxed levied exclusively by states
>
> R = non-tax receipts

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V^1 shows a conditional grant *(Gc)* and borrowing *(B)* lessen state autonomy for land tax, non-tax revenue, shared taxes and unconditional grants are all considered to be state controlled. V^2 expand the influence of the central government to include the provision of unconditional grants as well. V^3 represents a judgmental weighting of the degree of the central government's control over grants, borrowing and tax sharing. The weight a…f varies from zero to unity depending on the estimation made regarding the extent of the state's influence over each revenue item. The greater the influence, the lower the weight (Hunter, 1977; Umikalsum, 1991). By this measure, a coefficient of zero indicates absolute central government control over state and local governments, while a coefficient of one indicates that lower levels of governments are autonomous in their decision making. The high coefficient value is consistent with the assignment principles enunciated above; absolute subnational autonomy has never been a goal in any federation.

This phenomenon of vertical imbalance has actually been revealed by several studies across countries, including the estimated coefficients by Shah (1991) involving indices in Indonesia - 1990 [0.19], Australia - 1987 [0.43], India - 1982/1986 [0.45], Colombia - 1979/1983 [0.50], Pakistan - 1987/1988 [0.53], Malaysia - 1984/1988 [0.65], Canada - 1988 [0.79], Germany - 1988 [0.79], United States - 1988 [0.88] and Brazil -1988 [0.89]); Martinez-Vazquez and Boex (2001) involving indices on 1997 i.e. Russia [0.84], Belgium [0.51], Denmark [0.61], Estonia [0.68], Finland [0.65], Germany [0.79], Latvia [0.49], Lithuania - .[086] and Netherlands [0.34]; Umikalsum (1991) seeks on Malaysia index - 1987 [0.75]; Lukovenko (2003) Ukraine - 2001 [0.87]; also Slukhai (2003) in transition countries i.e. Romania - 2001 [0.22], Russia - 2001 [0.83], Ukraine - 2000 [0.74]. The best solution to overcome these vertical imbalances is

through tax sharing such the best-known method used by most countries (see Table
4.9).

Table 4.9
Types of Tax Sharing

Tax sharing	The sharing of tax proceeds between different levels of government is implemented through a specified proportion, which is determined through power or constitutional quota. The shared taxes have also tended to be the most important sources of revenue, including income tax, value-added tax (VAT), and other forms of consumption taxes. This method is widely used in both federation (industrial countries like Germany, Canada, Spain, and Switzerland; developing countries like Argentina and Bolivia); and unitary (industrial countries like Norway, Italy, and Denmark; and developing countries like Hungary).
Tax rebates	The system of tax rebates paid to one government is credited against those due to another. This tax credit allows the transfer of part or percentage of expenditure taxation to the state government through the income before taxes of the central government. The tax credit formula is $FT = (tY\text{-}ST)$ where $Y =$ revenue base, $ST =$ state tax, and $t =$ tax rate. In Canada, for example, the state government is allowed to charge a credit to the individual income tax, corporate income tax, and estate duty in an amount equal to the central imposed. It is also used as an alternative to revenue sharing when the state government wants to impose its tax base.
Tax supplements	This tax allows the state government to receive a certain percentage of the revenue collected by the central government. In Scandinavian, the state government can either use a tax basis (determined by the central government and apply it according to rates set by the state government to the base) or the state government can make additional payments on their taxes to the highest level of government.
Tax Deductions	Tax revenue is collected by the state government and deducted partly to be paid to the central government. The formula is FT = t (Y-ST where Y = revenue base, ST = state tax, and t = tax rate). In the United States, personal income tax, death, and inheritance are allowed to be deducted by the state government as recorded in the Revenue Act of 1867. The rationale for this tax deduction is that both levels of government have the authority to raise enough revenue, respectively. In addition, people will not be burdened by the imposition of double taxation.

Note. Adapted from Umikalsum (1991)

4.2.2.4   Government Transfer

To provide goods and services that meet social welfare, fiscal federalism stresses balancing expenses with revenue collection by the government. The Theory of Public Finance states that government financing is efficient if the level of costs to provide the requested service is equal to the results obtained. However, in many circumstances, the results of each layer of government rarely correspond to their outlay, and some budgets have always been in deficit. Eventually, this situation tends to create a fiscal gap, viz. vertical and horizontal imbalance.

A vertical imbalance occurs when the expenditure responsibilities of various levels of government are unequal to their own revenue (Shah, 1991; Ebel & Yilmaz, 2001; Ahmad & Craig, 1997). If the vertical imbalance is large, it means that the distribution of revenue between the central and subnational governments is not commensurate with the expenditure distribution functions between levels of government (Hunter, 1977). This imbalance is in great measure due to geographic factors, natural resources, and the wealth of the population. In wealthy countries, they are able to impose higher taxes, while poor countries are only able to impose lower taxes on the population. Thus, these fiscal capacity gaps must be resolved and may be addressed by intergovernmental transfer (and sometimes borrowing) mechanisms in order to alleviate structural imbalances, correct for fiscal inefficiencies and inequities, provide compensation for benefit spill over, and achieve subnational fiscal harmonization.

The issue of intergovernmental resource transfer can be broadly classified into two categories, i.e., (1) tax sharing systems and (2) system grants. The central government and subnational governments can share revenues based on a formula or share a tax

base by one of them applying a surcharge on the other's tax or distributing a fixed share of certain national taxes, e.g., the income tax or the value added tax. Shah (1997), shared tax bases and rates across the country, but with a fixed proportion of tax revenue (on a tax-by-tax basis or on the basis of a 'pool' of different tax sources) allocated to the subnational government in question, based on (1) revenue accruing within each jurisdiction (also known as the derivation principle) or (2) other criteria, typically population, expenditure needs, and/or tax capacity. In the case of establishing a grant system, Figure 4.2 illustrates the type of grants, which consists of two main types, i.e., conditional grants and unconditional grants.

Figure 4.2
Types of grants
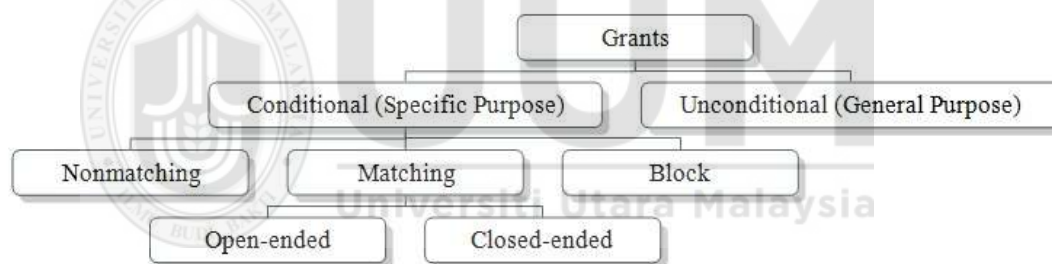
There is a conditional grant for the transfer of a lump-sum purchase from one level of government to another level of government (Boadway, 1979). A conditional grant is the binding behaviour of recipients of government grants on condition that the recipient government match part of the total expenditure at the expense of their own. It is also tied to specific expenses such as health and education (Boadway, 1979). Conditional grants are also made up of two types of nonmatching grants: matching grants and nonmatching grants. Matching grants are fixed amounts, but nonmatching grants vary depending on the size of the programme expenses for a particular recipient government

itself. For example, the central government decides on 40% of the costs of a project, while the state government pays for 60% of the costs (Browning & Jacquelene, 1979). Shah (1997) stated that the absolute amount of the specific grants may be determined by the central government or it may be 'open-ended' (that is, dependent on the expenditure levels decided by lower levels of government), but in either case, the central government specifies the expenditure programmes for which the funds should be spent. On the one hand, conditional grants require matching elements by the recipient government, but unconditional grants are given to the recipient government with full discretion to spend (Ebel & Yilmaz, 2002). An unconditional grant is given to the recipient pertaining to the project without any conditions and exertion on fiscal balance between government units. On the other hand, without any binding, subnational governments' funds can be spent as if they were receiving their own tax revenue. The central government sets the sub-central government's share (usually with a redistributive element), but the sub-central government can decide how to spend the grant. The amount each authority gets may depend on how hard they work (Shah, 1997).

Grants are used broadly in many countries, yet practises vary widely. As Ebel and Yilmaz (2002) stated, at least 30 percent of the subnational governments' revenues come from intergovernmental transfers in all regions. Until 2007, the grants appeared to be critical to the efficiency and equity of local service provision as well as the fiscal health of subnational governments. As seen in Figures 4.3 and 4.4, the composition of grants in Honduras, Thailand, the Netherlands, and the United Kingdom (unitary), as well as South Africa, Malaysia, and Belgium (federation), contribute significantly to the subnational government revenue structure. As Oates said, "...if the central

government wants to control sub-national taxation, it can limit the local base and give grants to sub-national units with the goal of improving their general ability to finance the provision of services..." (Bergvall, Charbit, Kraan & Merk, 2006, p. 126). This could be the case.

Figure 4.3
Subnational Revenues and Grants in Selected Unitary Countries
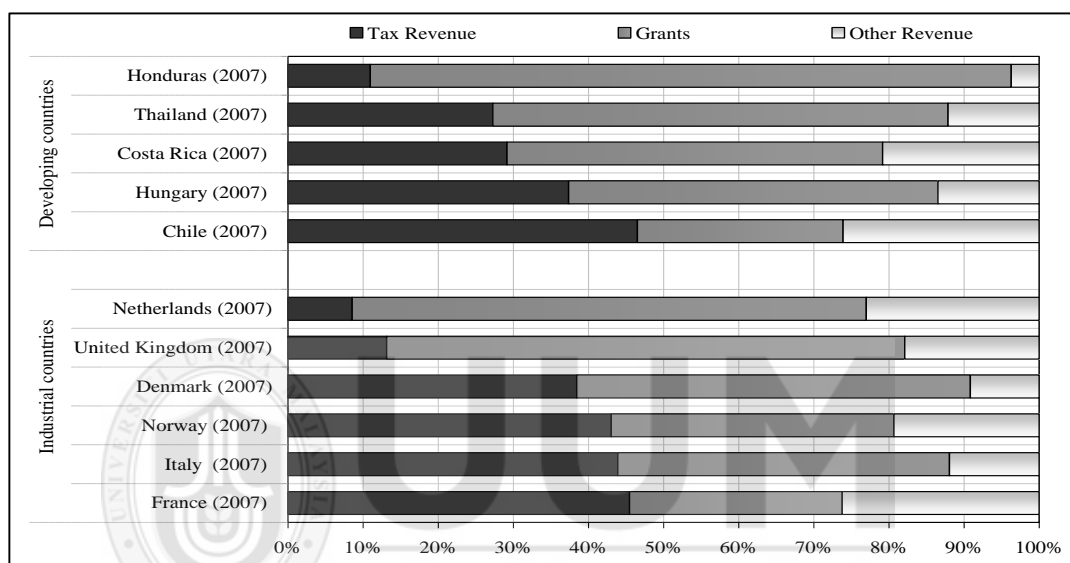
Note. Calculated from International Monetary Fund (2008)

Figure 4.4
Subnational Revenues and Grants in Selected Federation Countries

Note. Calculated from International Monetary Fund (2008)

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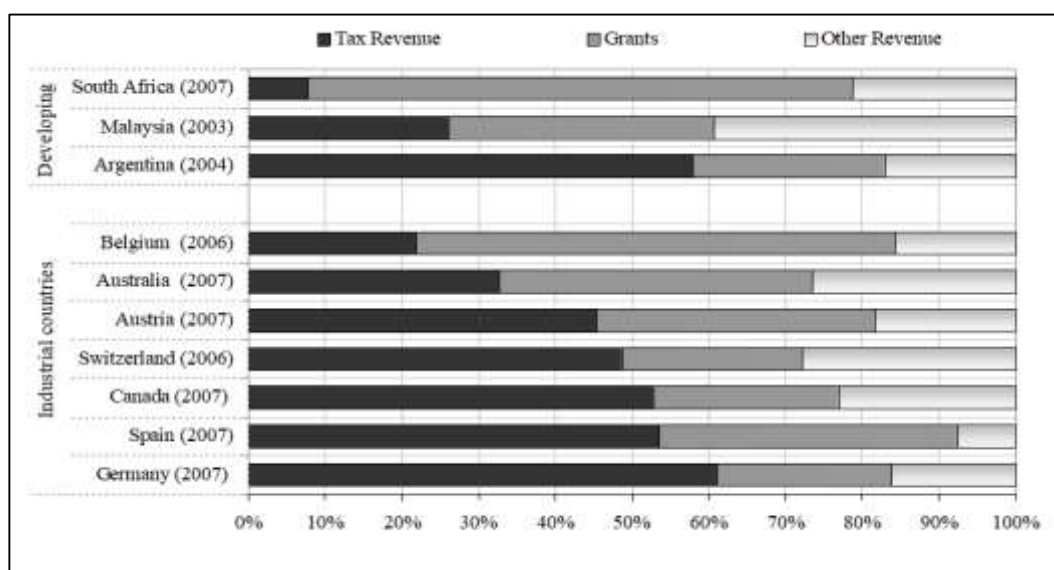
In this instance, the highly decentralised countries such as Canada and Switzerland (Federation), including Denmark and Norway (Unitary), show the dependency on grant transfers is by far the lowest owing to the advantages of tax assignment. However, a small trend towards intergovernmental grants in Germany was influenced by tax sharing. There is no income tax or other significant revenue source for subnational governments. Based on these records, it is to make Malaysia a subnational government as a grant recipient, at least after Mauritius, compared to other unitary states and federal countries. Thus, it should be emphasised here that the central government's approach to ensuring a balance of vertical and horizontal is usually different because it depends on the policies adopted by a country. As stated by Ahmad and Craig (1997, p. 76-77), there are three different policies that have been adapted to deal with the link between vertical and horizontal balances in respect of:

1.   *Separate policy measures correct each imbalance.* The vertical imbalance at each level of government is resolved by tax-sharing or grant arrangements, whereas the horizontal imbalance is resolved by payment from regions with higher fiscal capacity to poorer regions. This approach is used in the Republic of Germany,

2.   *Implement an integrated system of equalisation grants.* The vertical and horizontal balances are dealt with simultaneously through a system of grants, including equalisation payments and special purpose grants. This approach is adopted by Australians and Canadians, or

3.   *Correct only the vertical imbalance and ignore the horizontal balance.* As under the first option, vertical balances are resolved by tax-sharing and grants, but no action is taken to correct horizontal imbalances. Capital and labour migration then respond not only to differences in earned income but also to regional net fiscal benefits (the net benefit received from government spending and taxes paid). There may be,

however, special-purpose grants servicing central government objectives, which may also reduce horizontal imbalances, at least in some functional areas. This approach is broadly used in the United States.

In short, different forms of transfer mechanisms are designed through sharing revenues and tax bases, establishing conditional or unconditional grant systems. The central government and subnational governments can share revenues based on a formula or share a tax base by one of them applying a surcharge on the other's tax. In the case of establishing a grant system, conditional grants require matching elements by the recipient government, but unconditional grants are given to the recipient government with full discretion to spend. The choice of transfer mechanism depends on the objectives of intergovernmental policies (Ebel & Yilmaz, 2002). In addition, the intergovernmental transfer system in most countries is decided by the central government on the amount of transfer on a discretionary basis. Therefore, the intergovernmental transfer system is not transparent and subject to political manipulations, which leads to uncertainties on the part of subnational governments. Such uncertainties discourage fiscal planning and effective budgeting (Ebel & Yilmaz, 2002). Fiscal transfers between governments have, for good or for ill, long been a dominant feature of intergovernmental finance in many countries. Whether transfers are good or bad depends on the incentives they give both the central government and local governments.

Collier, Laporte, and Seawright (2008) address three tasks for researchers who create typologies. First, researchers must work systematically with concepts. If typology is used to classify situations, the cells are data containers. Second, typologies concentrate

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on interrelations among concepts. The overarching concept is the overall phenomenon assessed by the categories of a typology. Determining the semantic field requires explicit explanation of concepts and sub-types. Third, the overarching concept and the categorical variable that measures it are related in a kind of hierarchy. For example, the influence of foreign policy on elections is low, "low to some," and high. A type of hierarchy can also have additional levels.

4.3 Grouping the Cases

The following subtopics address the second research question on how many clusters should be produced and how should sample countries be classified quantitatively. This requires data. The Regional Authority Index (RAI) was used to determine the number of clusters which were formed by the ten concepts: (1) institutional depth, (2) policy scope, (3) fiscal autonomy, (4) borrowing autonomy, (5) representation, (6) law-making, (7) executive control, (8) fiscal control, (9) borrowing control, and (10) constitutional reform. Using all 10 of these concepts, the test was designed to determine the number of clusters, as well as to examine the transformation of the case's country over the past five decades. Figure 4.5 shows the arrangement for this.

Figure 4.5
Arrangement for Cluster Number Determination

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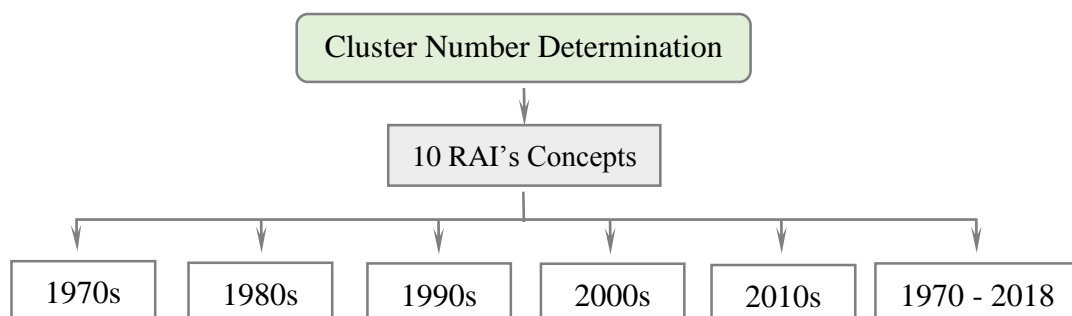
4.3.1   Determination of Cluster Number

The methods for determining the cluster number were described in subtopic 3.4.6.2.2. The following section details the quantitative test by which the cluster numbers were assigned from the 1970s to the 2010s. Numerical periodic decade data series were used in each time frame. Finally, the 48 years of data were averaged to get an overview of the acceptable main cluster numbers in the 70 countries.

4.3.1.1   The 1970s

Based on hierarchic clustering test, the coefficients value in the agglomeration schedule is the best way to illustrate the elbow point. According to Figure 4.6, the elbow point for 1970s agglomeration coefficients identified at the 48^{th} stage from the total $n=52$ countries, that shows $k = 4$.

Figure 4.6
Agglomeration Coefficients, 1970s
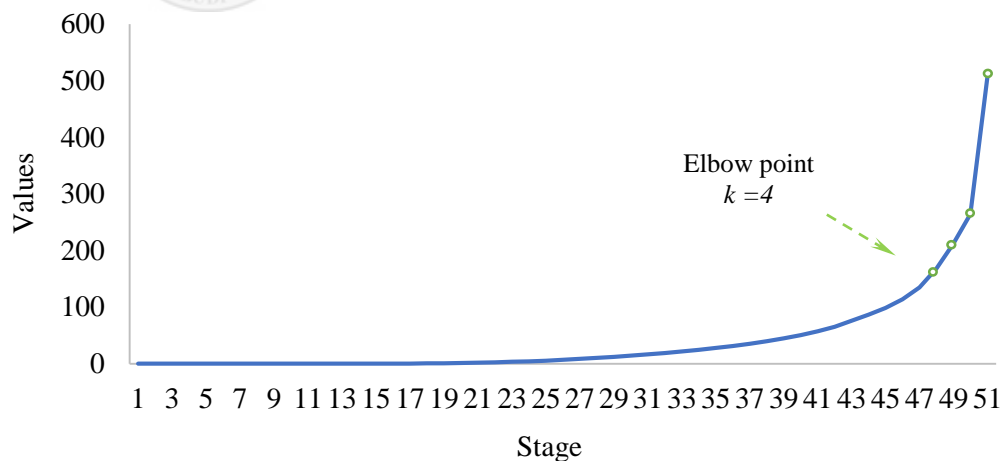
The following method is dendrogram Figure 4.7 shows the number of clusters was 4 as counted at 5 scale distances in dendrogram 1970s.

Figure 4.7
Dendrogram Clustering, 1970s

Dendrogram using Ward Linkage
Rescaled Distance Cluster Combine
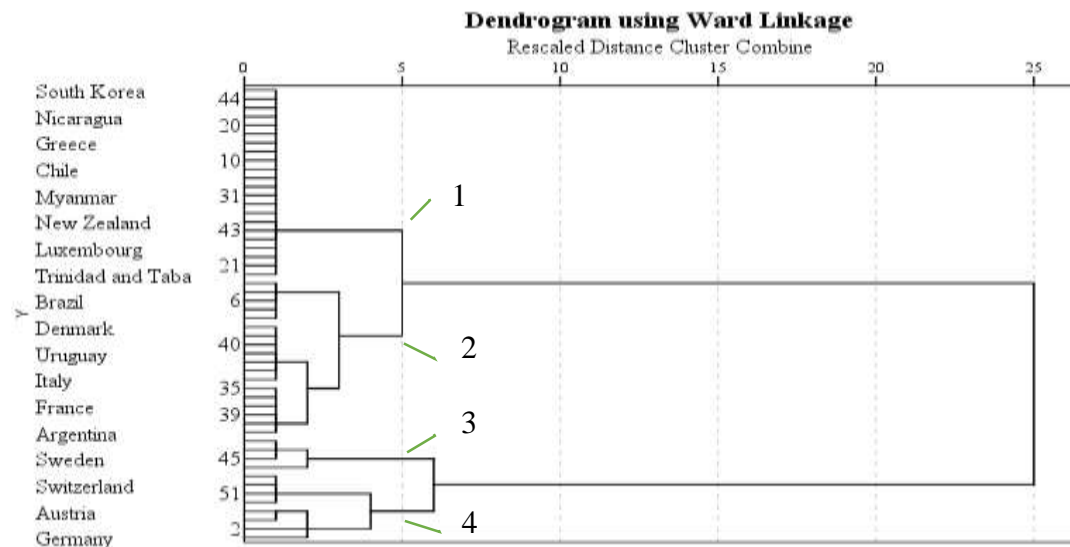
Next, the two-step cluster analysis was then implemented. According to the Figure 4.8, the cluster quality indicates that the overall model quality of four (4) clusters and ten (10) input (RAI's concepts) was "**good**".

Figure 4.8
Model Summary Review, 1970s

After specify $k = 4$ as the desired number of clusters, this k used to assign points to each cluster to find the mutually exclusive cluster of spherical shape based on distance. As the system (SPSS) measured Euclidean distance, the iteration process indicates in

Table 4.10 shows iterative clustering algorithms in which similarity is derived by the closeness of a data point to the centroid of the clusters, centroid models include k-means clustering. The table shows the convergence achieved at the iteration 3 which the maximum absolute coordinate change for any centre is .000.

Table 4.10
Iteration History, 1970s

Iteration	Change in Cluster Centres			
	1	2	3	4
1	1.983	2.709	1.474	2.342
2	.000	.000	.088	.667
3	.000	.000	.000	.000

Note. Convergence achieved due to no or small change in cluster centres. The maximum absolute coordinate change for any centre is .000. The current iteration is 3. The minimum distance between initial centres is 6.701.

Table 4.11 shows the Euclidean distances between the final cluster centres. Greater distances between clusters correspond to greater dissimilarities.

Table 4.11
Distances between Final Cluster Centres, 1970s

Cluster	1	2	3	4
1		4.094	5.963	4.401
2	4.094		6.489	5.318
3	5.963	6.489		4.859
4	4.401	5.318	4.859	

Cluster 1 is most like clusters 2 and 4, while most different from cluster 3. These relationships between the clusters can also be intuited from the final cluster centres, but this becomes more difficult as the number of clusters and variables increases.

4.3.1.2 The 1980s

In the 1980s, the sample size was $n=53$ countries, and the cluster number was calculated from agglomeration coefficients. According to Figure 4.9, the elbow point for 1980s cluster analysis shows $k = 4$ at the 49th stage.

Figure 4.9
Agglomeration Schedule Coefficients, 1980s
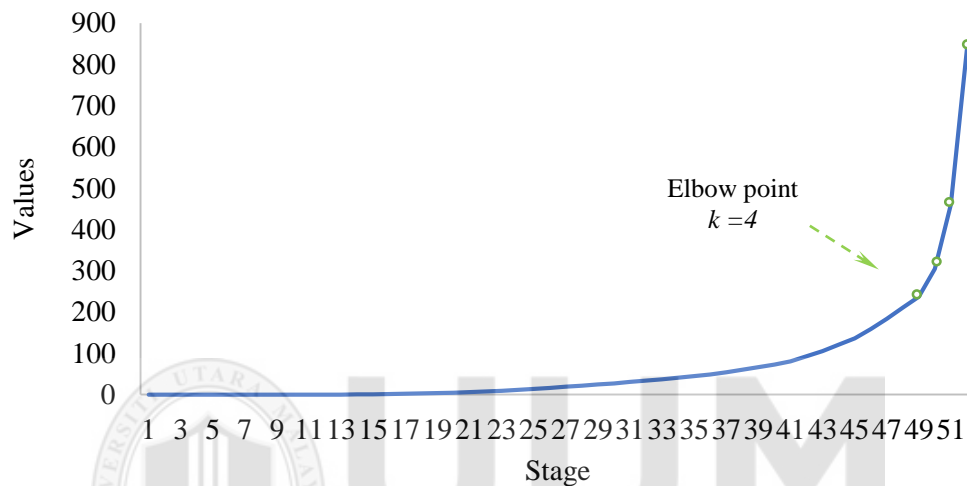
Figure 4.10 shows 4 number of clusters found at the 5 distances bases of the tree dendrogram clustering in the 1980s.

Figure 4.10
Dendrogram Clustering, 1980s

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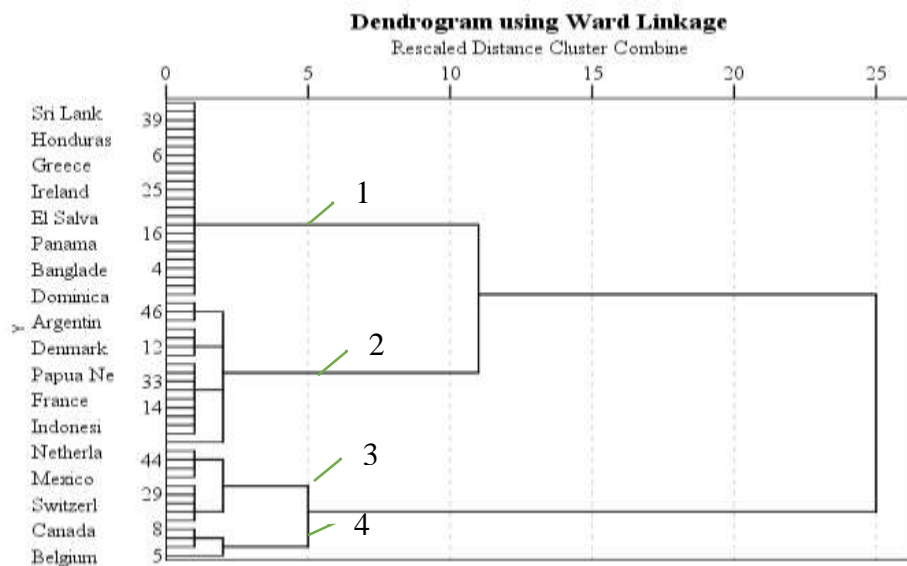
Next, two-step cluster analysis was performed. From the Figure 4.11, the model summary 1980s shows the cluster quality of four (4) clusters and ten (10) input was "good."

Figure 4.11
Model Summary Review, 1980s
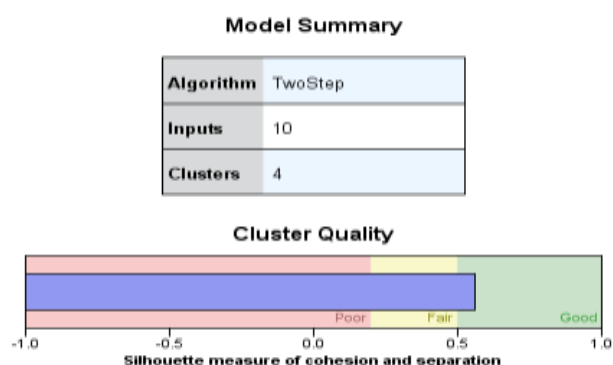
Table 4.12 indicates the iteration history for four cluster solutions. The convergence in k-means clustering algorithm achieved at the second iteration as the cluster become static (.000).

Table 4.12
Iteration History, 1970s

Iteration	Change in Cluster Centres			
	1	2	3	4
1	1.726	2.786	1.987	1.891
2	.000	.000	.000	.000

Note. Convergence achieved due to no or small change in cluster centres. The maximum absolute coordinate change for any centre is .000. The current iteration is 2. The minimum distance between initial centres is 6.795.

Table 4.13 shows the distances between the final cluster centres. Greater distances between clusters correspond to greater dissimilarities. Cluster 1 was most similar to

Cluster 3. Cluster 2 was approximately the most different from Cluster 1. These relationships between the clusters can also be intuited from the final cluster centres, but this becomes more difficult as the number of clusters and variables increases.

Table 4.13
Distances between Final Cluster Centres, 1980s

Cluster	1	2	3	4
1		6.557	5.609	6.026
2	6.557		4.056	5.391
3	5.609	4.056		4.976
4	6.026	5.391	4.976	

4.3.1.3   The 1990s

Based on hierarchic clustering test, the coefficients value in the agglomeration schedule is the best way to illustrate the elbow point. According to Figure 4.12, the elbow point $k = 4$ for 1990s agglomeration coefficients shows at the 66[th] stage from the total $n=70$ countries.

Figure 4.12
Agglomeration Schedule Coefficients, 1990s
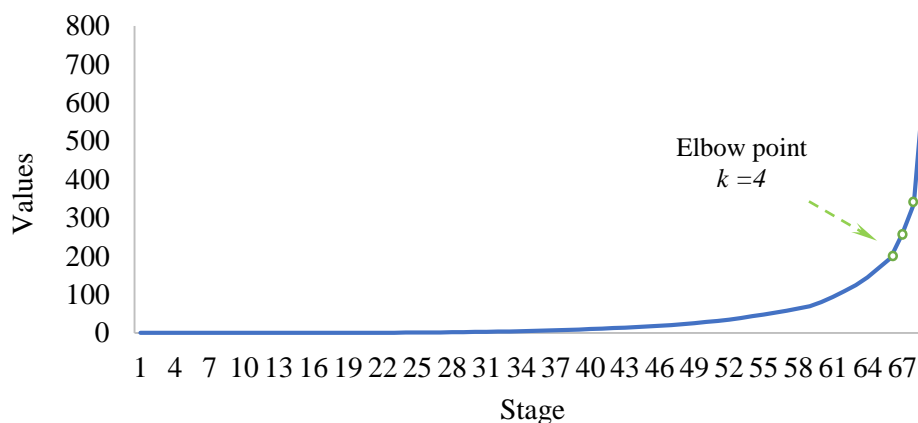
Figure 4.13 shows dendrogram clustering for 1990s. At the 5 distances, the number of clusters consist of 4 bases of the tree.

Figure 4.13
Dendrogram Clustering, 1990s
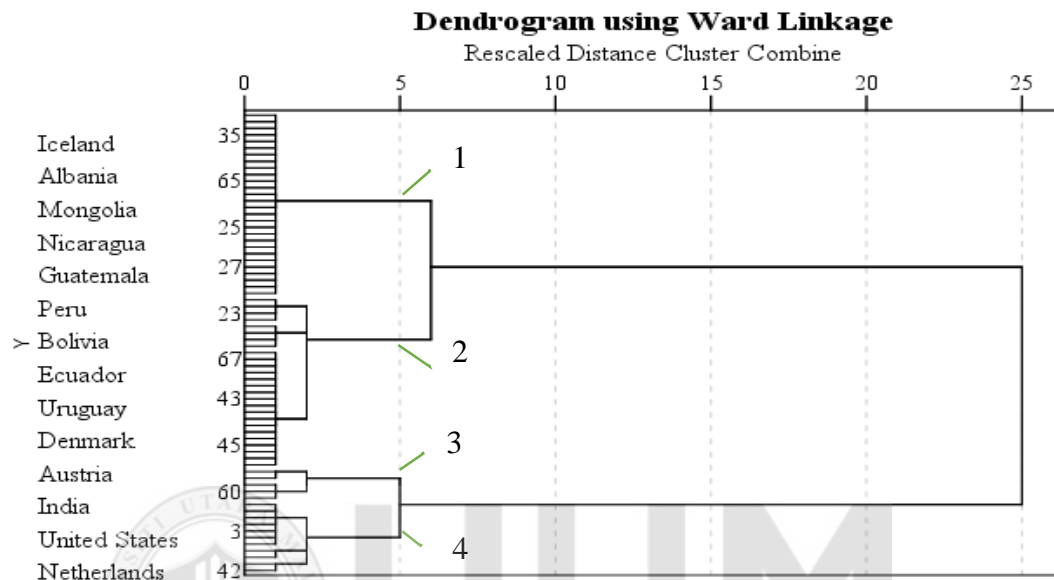
Next, the two-step cluster analysis was then implemented. According to Figure 4.14, the model summary shows that there are 4 clusters based on the 10 input used. The cluster quality chart indicates that the overall model quality was **"good".**

Figure 4.14
Model Summary Review, 1990s

Table 4.14 displays the iteration for four-cluster solution. In early iterations, the cluster

centres shift quite a lot. The convergence in k-means clustering algorithm achieved at

the iteration third as the cluster become static (.000).

Table 4.14
Iteration History, 1990s

Iteration	Change in Cluster Centres			
	1	2	3	4
1	1.184	2.860	2.015	2.020
2	.188	.000	.696	.357
3	.000	.000	.000	.000

Note. Convergence achieved due to no or small change in cluster centres. The maximum absolute coordinate change for any centre is .000. The current iteration is 3. The minimum distance between initial centres is 5.434.

Table 4.15 shows the distances between the final cluster centres 1990s. Greater

distances between clusters correspond to greater dissimilarities.

Table 4.15
Distances between Final Cluster Centres, 1990s

Cluster	1	2	3	4
1		7.480	5.826	3.817
2	7.480		4.562	5.161
3	5.826	4.562		3.190
4	3.817	5.161	3.190	

Cluster 1 was most similar to cluster 4 but approximately the most different from

cluster 2. Whereas Cluster 2 is most similar to Cluster 3 and Cluster 4, These

relationships between the clusters can also be intuited from the final cluster centres,

but this becomes more difficult as the number of clusters and variables increases.

4.3.1.4   The 2000s

Based on the agglomeration schedule coefficient 2000s, the elbow point of the *n=70*

countries were identified at the 66th stage. This means that *k = 4*.

Figure 4.15
Agglomeration Schedule Coefficients, 2000s
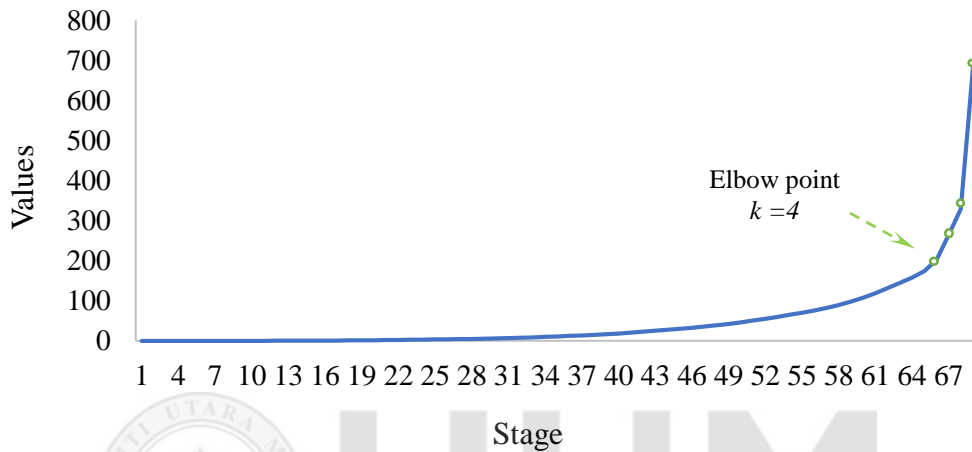
According to Figure 4.16, the dendrogram shows the number of clusters of 4 bases of

the tree found at 5 distances.

Figure 4.16
Dendrogram Clustering, 2000s

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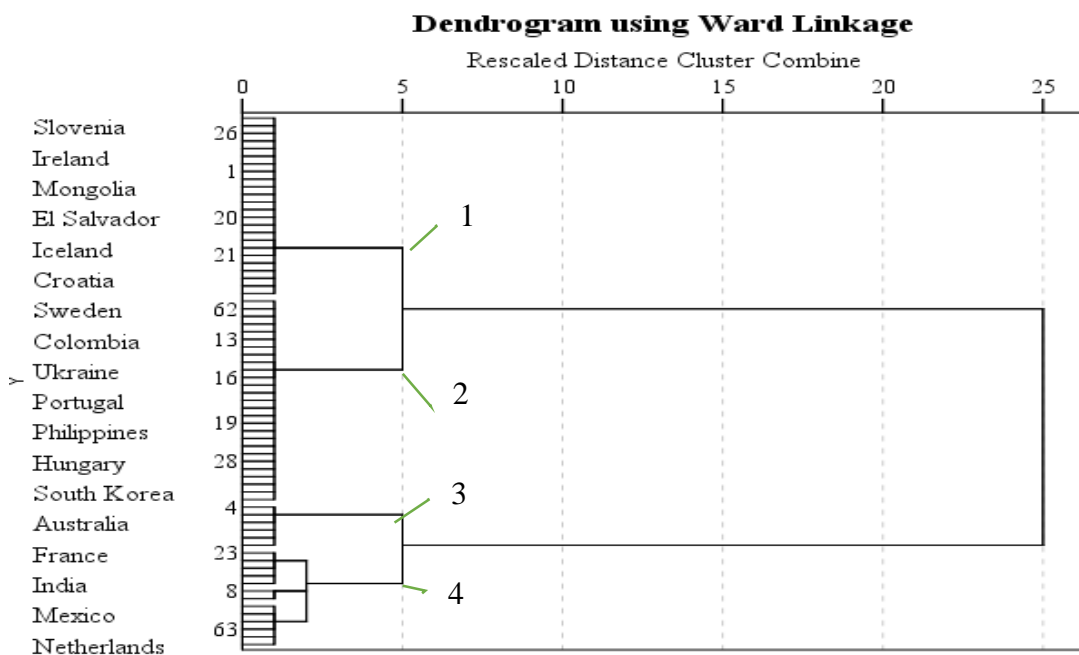
According to Figure 4.17, the 2000s model summary shows that 4 clusters of 10 input were classified as "**good**" quality clusters.

Figure 4.17
Model Summary Review, 2000s
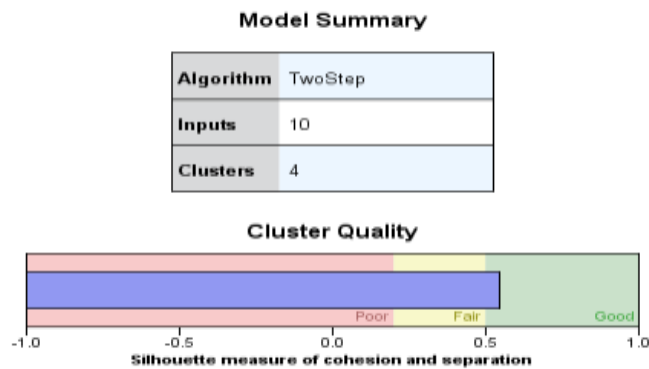
Table 4.16 displays the iteration for four cluster solutions. In early iterations, the cluster centres shift quite a lot. By the 3rd iteration, they have settled down to the general area of their final location. The convergence in k-means clustering algorithm achieved at the iteration 4th as the cluster become static (.000).

Table 4.16
Iteration History 2000s

Iteration	Change in Cluster Centres			
	1	2	3	4
1	1.804	1.806	1.527	2.437
2	.117	.507	1.032	.000
3	.051	.465	.789	.000
4	.000	.000	.000	.000

Note. Convergence achieved due to no or small change in cluster centres. The maximum absolute coordinate change for any centre is .000. The current iteration is 4. The minimum distance between initial centres is 5.220.

Table 4.17 shows the distances between the final cluster centres. Greater distances between clusters correspond to greater dissimilarities.

Table 4.17
Distances between Final Cluster Centres, 2000s

Cluster	1	2	3	4
1		4.577	5.471	7.188
2	4.577		3.026	4.336
3	5.471	3.026		4.728
4	7.188	4.336	4.728	

Cluster 1 is approximately most different to clusters 4, Clusters 2 is most similar to cluster 3, and Clusters 4 are most similar to cluster 2 and 3. These relationships between the clusters can also be intuited from the final cluster centres, but this becomes more difficult as the number of clusters and variables increases.

4.3.1.5 The 2010s

Figure 4.18 portrays the elbow point from the agglomeration coefficient 2010s was determined at the 66th stage. This means that the cluster for $n=70$ countries was $k = 4$.

Figure 4.18
Agglomeration Schedule Coefficients, 2010s

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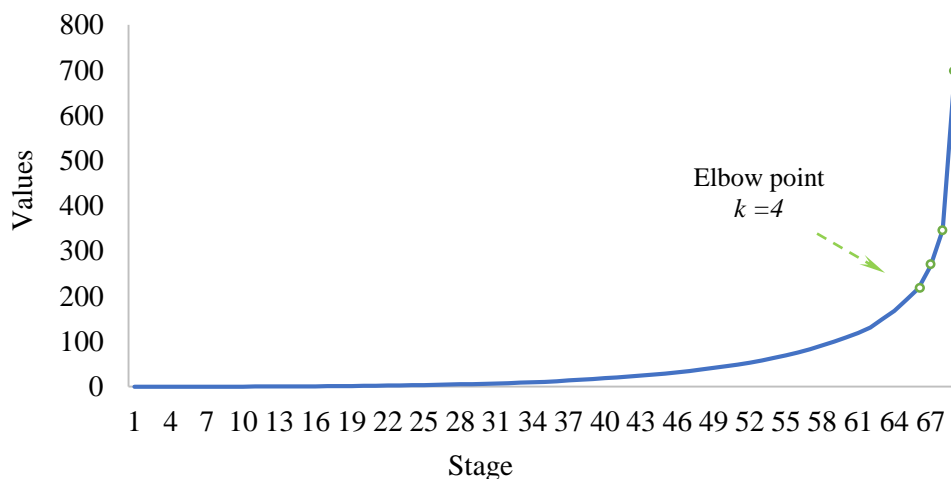
Figure 4.19 shows the number of clusters was 4 as counted at 5 scale distances in dendrogram 2010s.

Figure 4.19
Dendrogram Clustering, 2010s
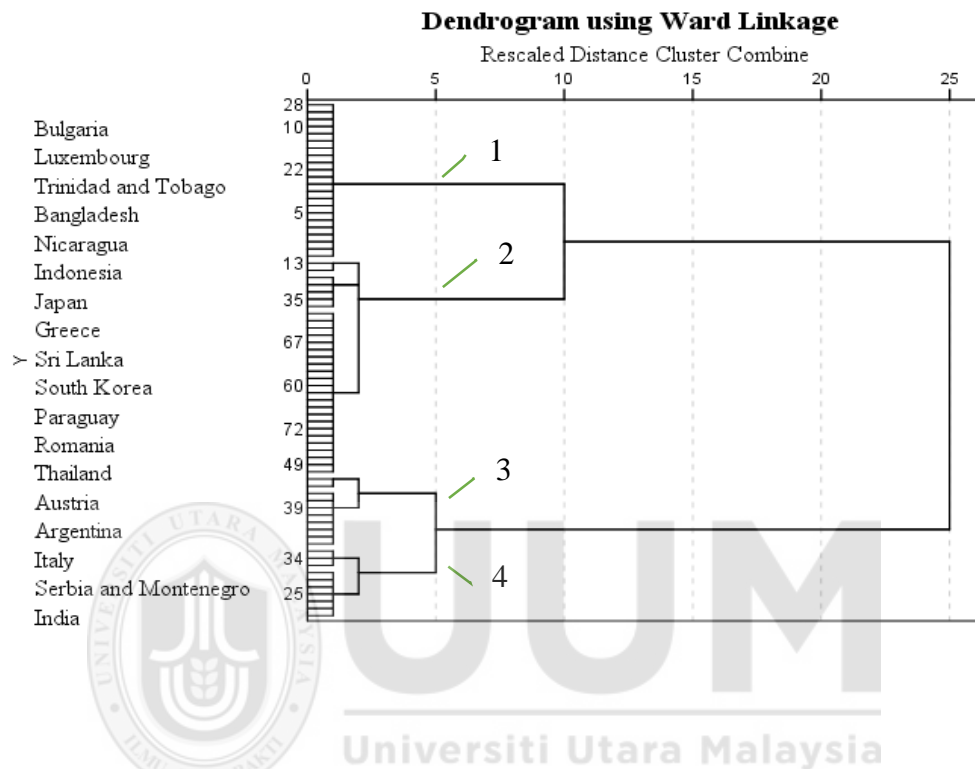
Figure 4.20 shows the model summary in 4 clusters and 10 input was "**good**" cluster quality 2010s.

Figure 4.20
Model Summary Review, 2010s
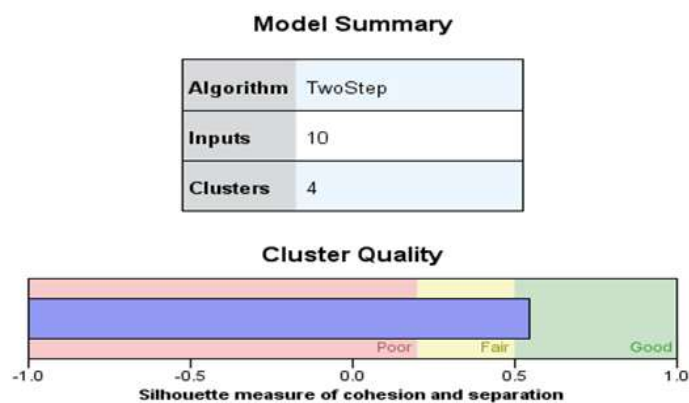
Table 4.18 shows the iteration for four-cluster solution. In early iterations, the cluster centres shift quite a lot. By the 4th iteration, they have settled down to the general area of their final location, and the last three iterations are minor adjustments. The convergence in K-means clustering algorithm achieved at the iteration 7[th] as the cluster become static (.000).

Table 4.18
Iteration History, 2010s

| Iteration | Change in Cluster Centres | | | |
	1	2	3	4
1	1.685	2.130	1.806	1.996
2	.071	.597	.553	.000
3	.223	.464	.417	.494
4	.339	.240	.279	.384
5	.129	.091	.000	.000
6	.067	.055	.000	.000
7	.000	.000	.000	.000

Note. Convergence achieved due to no or small change in cluster centres. The maximum absolute coordinate change for any centre is .000. The current iteration is 7. The minimum distance between initial centres is 5.602.

Table 4.19 shows the distances between the final cluster centres 2010s. Greater distances between clusters correspond to greater dissimilarities. Cluster 1 is most similar to cluster 2, but approximately is most different to cluster 4. Clusters 3 are most similar to cluster 4. These relationships between the clusters can also be intuited from the final cluster centres, but this becomes more difficult as the number of clusters and variables increases.

Table 4.19
Distances between Final Cluster Centres, 2010s

Cluster	1	2	3	4
1		2.584	5.486	7.399
2	2.584		3.809	6.048
3	5.486	3.809		3.600
4	7.399	6.048	3.600	

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4.3.1.6   1970 to 2018

Finally, 10 concepts for 48 years of time series data (1978 to 2018) were summed as RAI mean scores, and cluster numbers were calculated. Figure 4.21 shows the elbow point from the agglomeration coefficient from 1970 to 2018, which was determined at the 66th stage. This means that the cluster for $n=70$ countries was $k = 4$.

Figure 4.21
Agglomeration Schedule Coefficients, 1978-2018
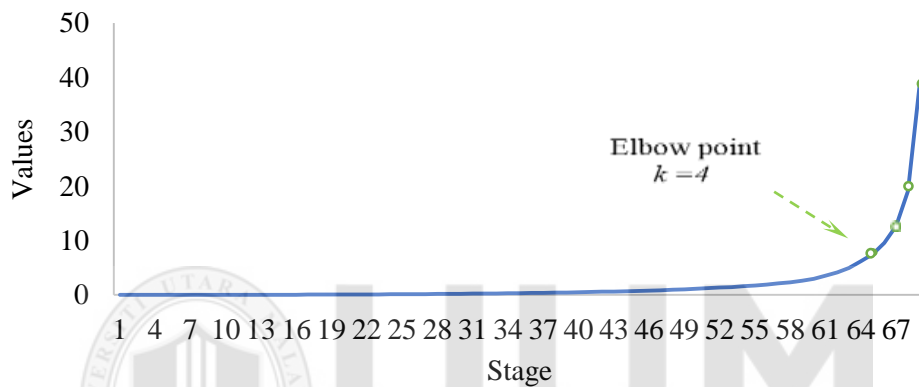
Figure 4.22 shows the clusters number was 4 as counted at 5 scale distances in dendrogram 1970-2018.

Figure 4.22
Dendrogram Clustering, 1970-2018

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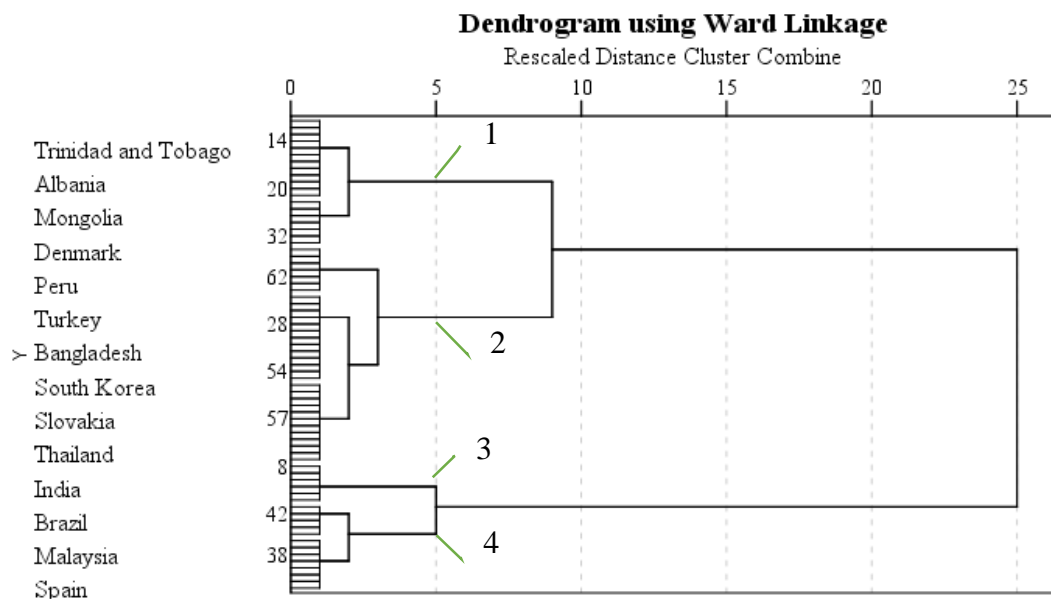
Figure 4.23 shows the model summary 1970-2018 in 4 clusters was "good" cluster

quality.

Figure 4.23
Model Summary Review, 1970-2018

Model Summary

Algorithm	TwoStep
Inputs	1
Clusters	4

Cluster Quality
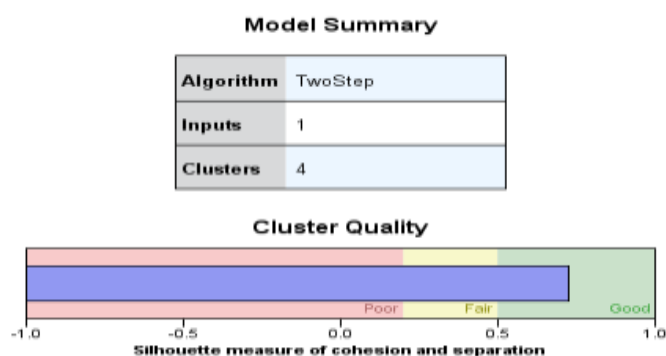
Table 4.20 shows the iteration for 4 cluster solutions. In early iterations, the cluster

centres shift quite a lot. The convergence in k-means clustering algorithm achieved at

the iteration 4^{th} as the cluster become static (.000).

Table 4.20
Iteration History, 1970-2018

Iteration	Change in Cluster Centres			
	1	2	3	4
1	.238	.155	.247	.151
2	.000	.238	.284	.058
3	.000	.113	.114	.000
4	.000	.000	.000	.000

Note. Convergence achieved due to no or small change in cluster centres.
The maximum absolute coordinate change for any centre is .000. The
current iteration is 4. The minimum distance between initial centres is 1.193.

Table 4.21 shows the distances between the final cluster centres 1970-2018. Greater

distances between clusters correspond to greater dissimilarities. Cluster 1 was most

like cluster 4 but most different to cluster 3. Clusters 3 was most similar to cluster 2

but most different to cluster 1.

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Table 4.21
Distances between Final Cluster Centres, 1970-2018

Cluster	1	2	3	4
1		1.985	3.059	.746
2	1.985		1.074	1.239
3	3.059	1.074		2.313
4	.746	1.239	2.313	

4.3.2   Countries Classification

Following the establishment of the number cluster, the analysis proceeded with the classification of *n=70* countries into groups and further discussion across decades. As shown in Figure 4.24, This section classified countries into clusters according to the 1970s, 1980s, 1990s, 2000s, and 2010s. This time series analysis permits the identification of countries that alternate across clusters. This was a more thorough technique since certain cluster changes were tracked decade after decade. Finally, the datasets for the whole 48-year period (1970-2018) were organized in such a manner that classification enabled the examination of similarities (within groups) and differences (between groups) that might be explained by dimension and major attributes.

Figure 4.24
Arrangement for Classification of Countries
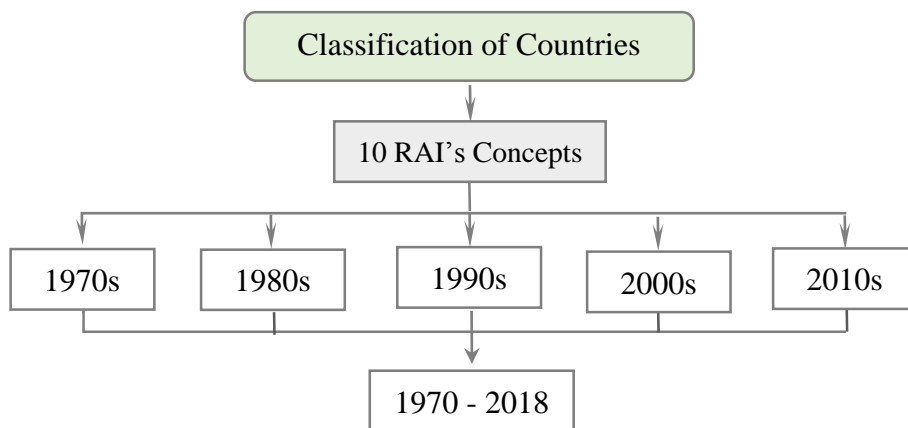
The k-means clustering approach was used 10 RAI's concepts namely institutional

depth, policy scope, fiscal autonomy, borrow autonomy, representation, legislation,

executive control, fiscal control, borrow control, and constitutional reform. Following

that, the scores of five concepts were reviewed as self-rule, while the remaining five

concepts' scores were examined as shared rule (see Figure 4.25).

Figure 4.25
Variables for Classification of Countries
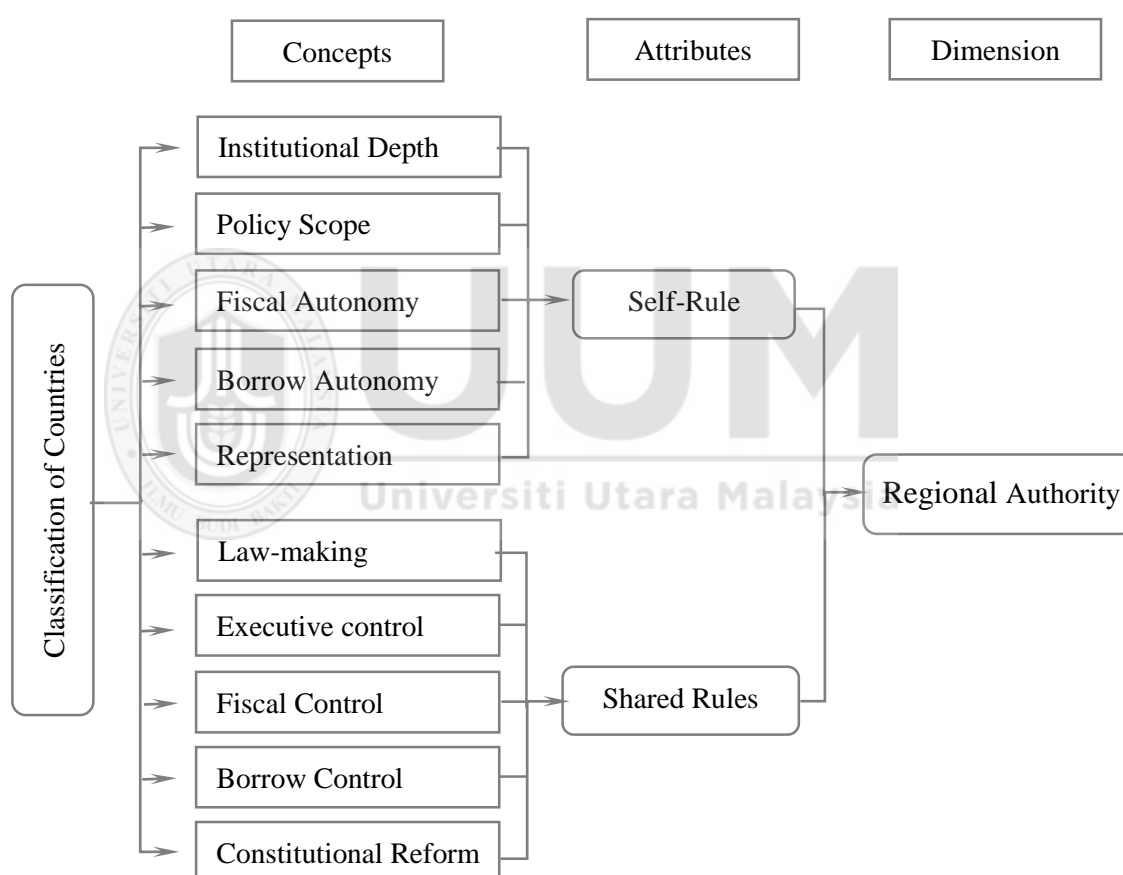
4.3.2.1   The 1970s

This decade was limited by data availability, with the data used consisting of yearly

RAI ratings for each state. As a result, the study covered just $n=52$ countries. All these

sample countries are classified into 4 clusters based on the test shown in Figure 4.6,

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Figure 4.7, and Figure 4.8. Since the value of $k = 4$, the analysis of k-means continues

to determine the signification and F value for 10 concepts.

Table 4.22
ANOVA Table for Four-Cluster Solution, 1970s

	Cluster		Error			
	Mean Square	df	Mean Square	df	F	Sig.
Z-score: institutional depth	7.145	3	.616	48	11.601	.000
Z-score: policy scope	11.800	3	.325	48	36.307	.000
Z-score: fiscal autonomy	11.730	3	.329	48	35.613	.000
Z-score: borrow autonomy	7.817	3	.574	48	13.621	.000
Z-score: representation	6.110	3	.681	48	8.978	.000
Z-score: law-making	8.340	3	.541	48	15.410	.000
Z-score: executive control	15.016	3	.124	48	121.103	.000
Z-score: fiscal control	14.159	3	.178	48	79.738	.000
Z-score: borrow control	15.183	3	.114	48	133.659	.000
Z-score: constitutional reform	13.171	3	.239	48	55.046	.000

Note. The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

According to Table 4.22, there was a significant difference among the four clusters.

Borrowing control had a larger impact in determining the cluster, as $F = 133.659$, p

$<.05$. The next attribute is executive control, $F = 121.103$, $p <.05$, followed by fiscal

control, $F = 79.738$, $p <.05$, whereas representation was the least significant factor

influencing the cluster $F = 8.978$, $p <.05$.

Figure 4.26 depicts a diagnostic plot that aids in the identification of outliers within a

cluster's membership. Italy (4.016) and Argentina (3.257) was the outlier in cluster 3

due to the cluster membership distance of between 0.706 (New Zealand) and 4.016

(Italy). Cluster 1 had a distance cluster membership of 1.374 (Switzerland) to 2.267

(India), Cluster 2 had a distance cluster membership of 1.618 (Austria) to 3.408

(Germany), and Cluster 4 had a distance cluster membership of 1.101 (Netherlands) to

2.933 (Belgium). The smaller the boxplot distance, the closer the countries in clusters

are.

Figure 4.26
Distance of Case by Cluster Number, 1970s
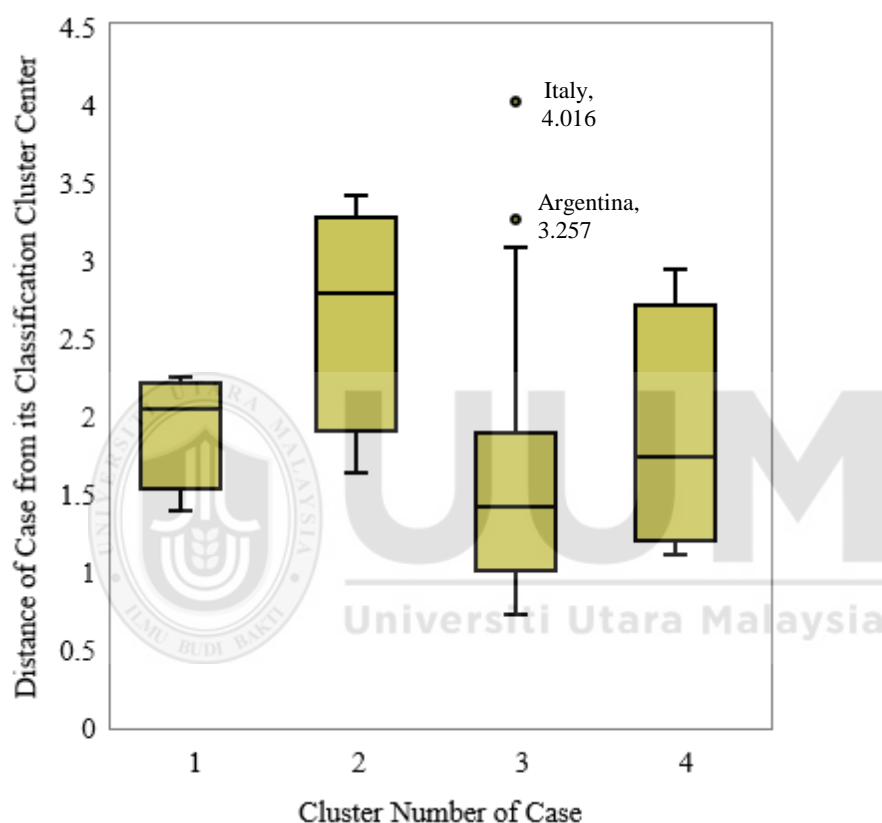
Table 4.23 shows the final cluster centres calculated as the mean for each of the 10

RAI's concepts according to the respective cluster groups. In the same table, the

sample state was categorized into 4 clusters with their own special characteristics.

Cluster 1

Regional governments in 4 countries have been given a great level of autonomy

compared to control over institutional depth, executive authority, policy scope,

representation, law-making, and constitutional reform. Regional governments, on the other hand, are disadvantaged in terms of fiscal and borrowing control.

Cluster 2

This cluster scored all positively over all areas. Regional governments in those 4 countries have granted significant autonomy and control to regional governments over institutional depth, executive authority, policy scope, fiscal, borrowing, representation, law-making, and constitutional reform.

Cluster 3

In this cluster, regional governments in n=40 countries scored negatively over all concepts. It means no autonomy and control was given to regional tiers over institutional depth, executive control, policy scope, both autonomy and control over fiscal and borrowing, representation, law-making and constitutional reform.

Cluster 4

4 countries have provided regional governments with great fiscal control, veto on constitutional change and law-making. This cluster, however, demonstrated a low level of autonomy and severely limited control over borrowing and executive.

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Table 4.23

Final Cluster Centres, 1970s

	Cluster						
	1	2	3				4
Countries	Switzerland United States Canada India	Austria Australia Malaysia Germany	New Zealand Spain Norway Portugal Turkey Thailand Myanmar Finland Panama Chile	Costa Rica El Salvador Greece Guatemala Honduras Nicaragua Paraguay South Korea Sri Lanka Dominican Rep.	Trinidad & Tobago Iceland Ireland Latvia Luxembourg Philippines Uruguay France Brazil United Kingdom	Peru Pakistan Colombia Japan Denmark Ecuador Bolivia Indonesia *Argentina** *Italy**	Belgium Mexico Sweden Netherland
Number of Cases	4	4	40				4
Z-score: institutional depth	1.51909	1.40013	-.31901				.25832
Z-score: policy scope	1.93004	1.83205	-.40819				.34217
Z-score: fiscal autonomy	2.38030	1.00038	-.40697				.72223
Z-score: borrow autonomy	1.70626	1.10877	-.35134				.72228
Z-score: representation	1.21560	1.33763	-.31319				.60357
Z-score: law-making	1.14832	1.12108	-.37718				1.46560
Z-score: executive control	1.93368	2.40993	-.39479				-.38733
Z-score: fiscal control	.33930	1.43260	-.43355				2.62043
Z-score: borrow control	-.27017	3.24207	-.27017				-.26485
Z-score: constitutional reform	1.55613	.72031	-.44942				2.18776

Note. * Outlier

The distinctive characteristics of each cluster are also shown in Figure 4.27. As the figure indicates, cluster 3 had a relatively negative scores of regional autonomy and control, in contrast to cluster 2, which had a greater level of autonomy and control. cluster 1 provided more autonomy and control over most functions, except for restricted fiscal control and very poor borrowing control. Cluster 4 had, on the other hand, bolstered fiscal control and moderate autonomy while severely restricting borrowing and executive control.

Figure 4.27
Cluster Centres of Each RAI's Concept by Clusters, 1970s
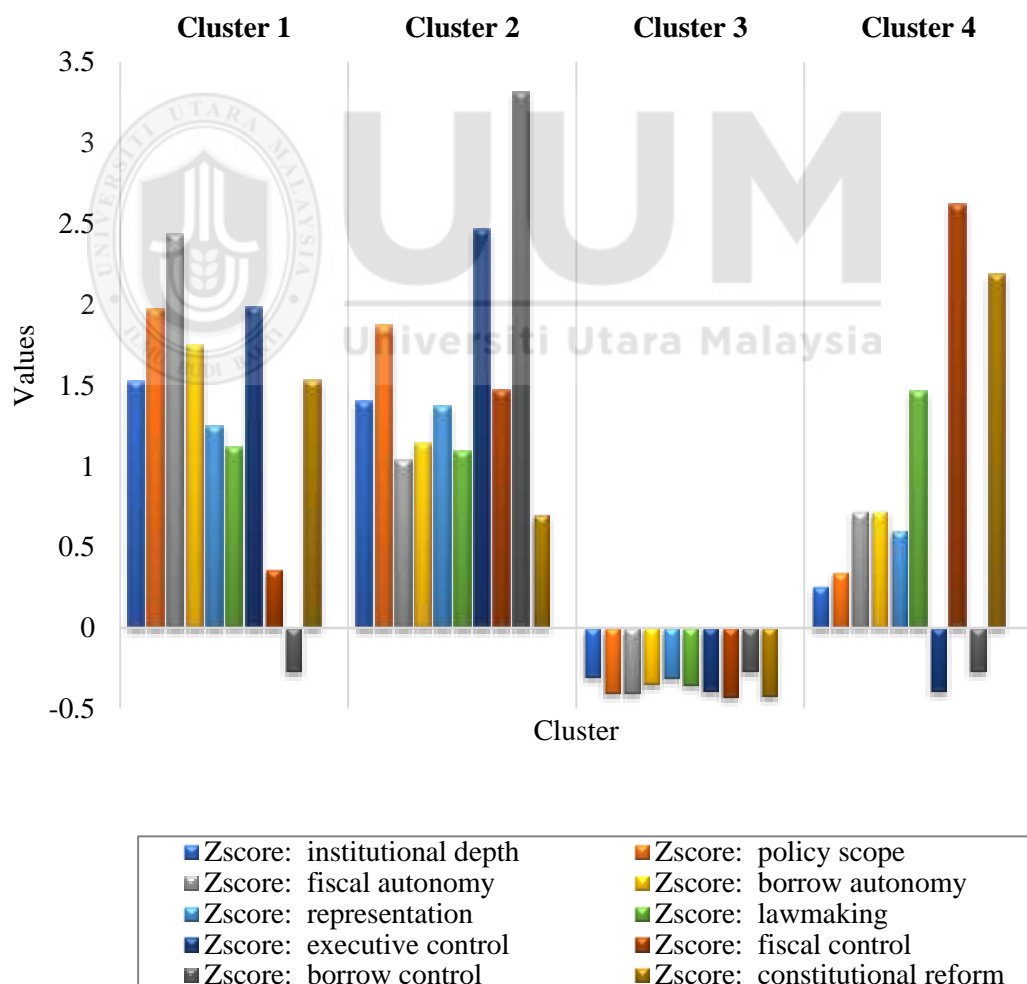
4.3.2.1.1   Self-Rule & Shared Rules

As shown in Figure 4.25, self-rule consist of five concepts: institutional depth, policy scope, fiscal autonomy, borrowing autonomy, and representation. While shared rule considers the score of law-making, executive control, fiscal control, borrowing control, and constitutional reform. Figure 4.28 shows the scatter plots for self-rule and shared rule of all four clusters for the 1970s.

Figure 4.28
Self-Rule and Shared Rules by Cluster, 1970s
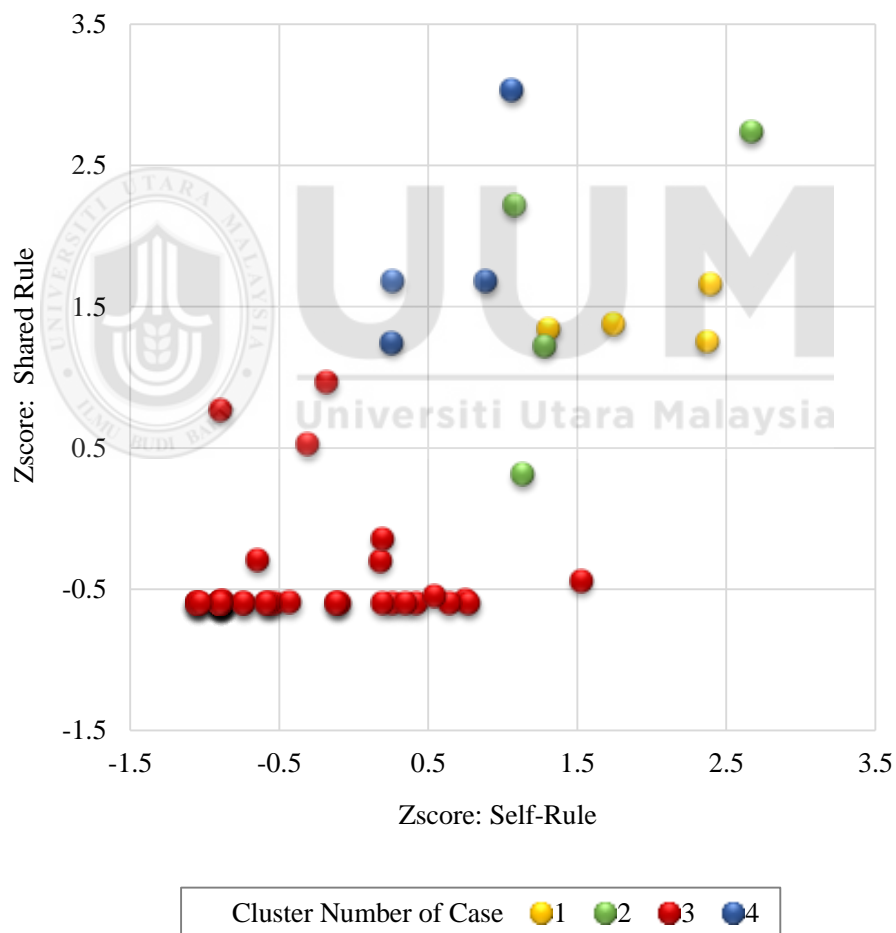
According to Figure 4.28, cluster 3 has a poor self-rule and shared rule score. That is, the subnational government is given relatively limited power, sovereignty, and control over institutional administration, policy formulation, fiscal and borrowing,

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representation and executive, law-making and constitutional change. In comparison to cluster 2, the subnational government is granted more autonomy and authority over both self-rule and shared rule. While cluster 1 demonstrates that self-rule entails more than shared rules to subnational governments, it contradicts cluster 3, in which shared rules are imposed on subnational governments rather than self-rule.

4.3.2.2   The 1980s

In the 1980s, the sample size was $n=53$ countries, and the cluster number was calculated in Figure 4.9, Figure 4.10 and Figure 4.11. Based on those figures, the value of $k = 4$. As a result, the k-means test required four clusters to run all 10 concepts.

Table 4.24
ANOVA Table for Four-Cluster Solution, 1980s

	Cluster		Error			
	Mean Square	df	Mean Square	df	F	Sig.
Z-score: institutional depth	6.365	3	.672	49	9.479	.001
Z-score: policy scope	10.706	3	.406	49	26.388	.000
Z-score: fiscal autonomy	9.937	3	.453	49	21.942	.000
Z-score: borrow autonomy	6.382	3	.670	49	9.519	.000
Z-score: representation	5.451	3	.727	49	7.494	.001
Z-score: law-making	8.245	3	.556	49	14.817	.000
Z-score: executive control	14.309	3	.185	49	77.278	.000
Z-score: fiscal control	15.193	3	.131	49	115.939	.000
Z-score: borrow control	15.232	3	.129	49	118.393	.000
Z-score: constitutional reform	12.731	3	.282	49	45.180	.000

Note. The *F* tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

There was a significant difference among the four clusters as shown in Table 4.24. The table indicates that the borrowing control $F = 118.393$, $p < .05$ had a greater effect

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in identifying the cluster. The next attribute to influence the cluster is fiscal control F = 115.939, $p<.05$, followed by executive control F = 77.278, $p<.05$, while representation was the least important factor F = 7.494, $p <.05$.

Figure 4.29 shows Italy (4.020) an outlier in cluster 1 with cluster membership distances ranging from 0.722 (Turkey) to Spain (3.285). Cluster 2 had a distance cluster membership of 1.786 (Austria) to 3.516 (Germany), cluster 3 had a distance cluster membership of 1.428 (Switzerland) to 2.267 (India), and cluster 4 had the same distance cluster membership of 1.891 (Netherlands and Belgium), indicating the clusters' proximity.

Figure 4.29
Distance of Case by Cluster Number, 1980s
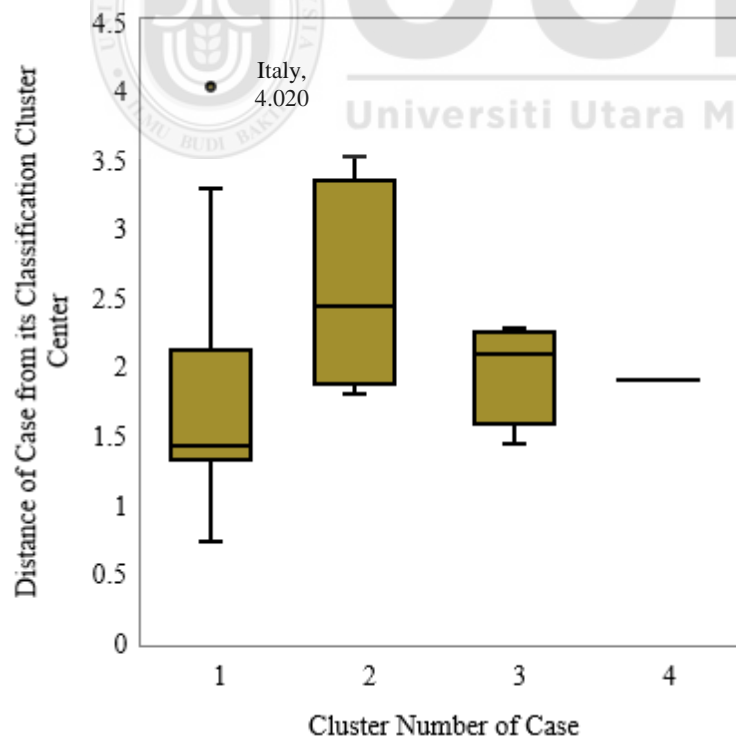
The final cluster centres for the four-cluster solution are listed in Table 4.25. The resulting cluster centre was consistent with the characteristics of each variable.

Cluster 1

N=43 countries in cluster 1 had a negative z-score for all 10 concepts. That is, no autonomy and control was given to regional tiers over institutional depth, executive power, policy breadth, fiscal, borrowing, representation, legislative, and constitutional change.

Cluster 2

Cluster 2 scored all positively. 4 countries had given tremendous autonomy and control over institutional depth, executive authority, policy scope, fiscal, borrowing, representation, law-making, and constitutional reform to regional authority.

Cluster 3

In this cluster, regional governments in 4 countries had a significant level of autonomy, a moderate level of control, however less control over borrowing.

Cluster 4

2 countries in this cluster 4 demonstrate that their regional governments have been granted veto power over fiscal control and constitutional amendments in a national legislature. Regional governments, on the other hand, severely limited borrowing, and executive control.

Table 4.25

Final Cluster Centres, 1980s

	Cluster					2	3	4
	1							
Countries	Turkey	Chile	Nicaragua	Iceland	Sweden	Austria	Switzerland	Belgium
	Portugal	France	Paraguay	Ireland	Pakistan	Malaysia	United States	Netherland
	Philippines	Bangladesh	South Korea	Luxembourg	Argentina	Australia	Canada	
	Finland	Indonesia	Sri Lanka	Peru	Brazil	Germany	India	
	Thailand	Costa Rica	Ecuador	Norway	Mexico			
	United Kingdom	Greece	Papua New Guinea	Japan	Spain			
	Uruguay	Bolivia	Myanmar	Colombia	*Italy**			
	Panama	Guatemala	Trinidad & Tobago	Dominica				
	New Zealand	Honduras	El Salvador	Denmark				
Number of cases	43					4	4	2
Z-score: institutional depth	-.28527					1.31314	1.37298	.76105
Z-score: policy scope	-.37382					1.66443	1.71404	1.28010
Z-score: fiscal autonomy	-.31946					.93656	2.32827	.33871
Z-score: borrow autonomy	-.26495					1.20788	1.60318	.07432
Z-score: representation	-.26716					1.26334	1.07750	1.06233
Z-score: law-making	-.32784					1.58353	1.23700	1.40741
Z-score: executive control	-.37573					2.34863	1.90006	-.41921
Z-score: fiscal control	-.36892					1.65318	.44131	3.74270
Z-score: borrow control	-.26359					3.24985	-.27748	-.27748
Z-score: constitutional reform	-.39095					1.24997	1.54800	2.80943

Note. * Outlier

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Figure 4.30 illustrates the unique features of each cluster. As the figure indicates, Cluster 1 has negative score of subnational autonomy and control in comparison to Cluster 2, which has a significant amount over all domains. On the other side, Clusters 3 are given more autonomy but restricted control, particularly over borrowing. Cluster 4 has strengthened fiscal control but severely limited borrowing and executive control.

Figure 4.30
Cluster Centres of Each RAI's Concept by Clusters, 1980s
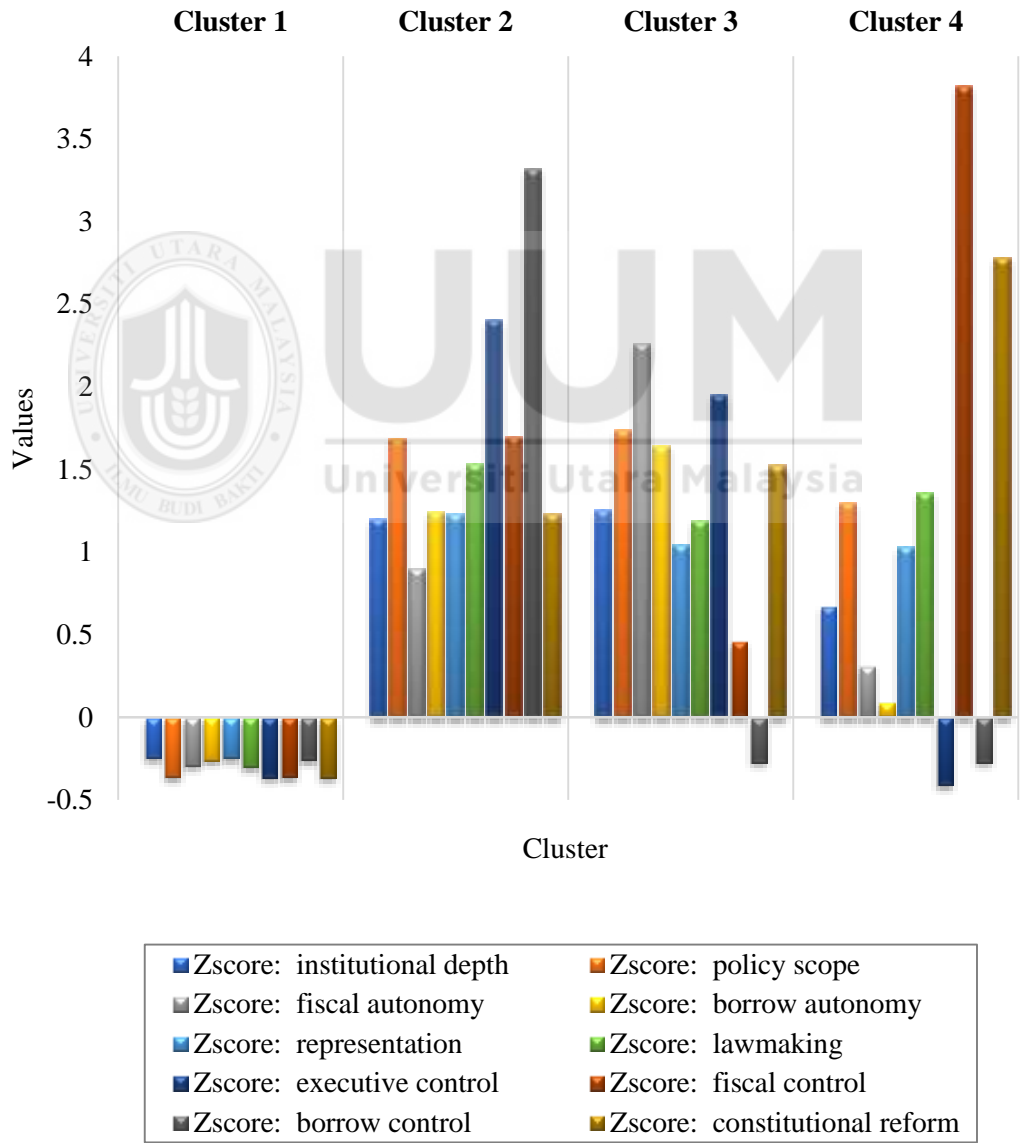
4.3.2.2.1   Self-Rule & Shared Rules

According to Figure 4.31, cluster 1 shows the relatively limited power, sovereignty, and control have been given to subnational government for self-rule and shared rules. Contradict to cluster 2, the subnational government is granted more autonomy and control for both self-rule and shared rules. While cluster 3 demonstrates that self-rule entails more than shared rules to subnational governments, comparing to cluster 4 which shared rules are imposed on subnational governments rather than self-rule.

Figure 4.31
Self-Rule and Shared Rules by Cluster, 1980s
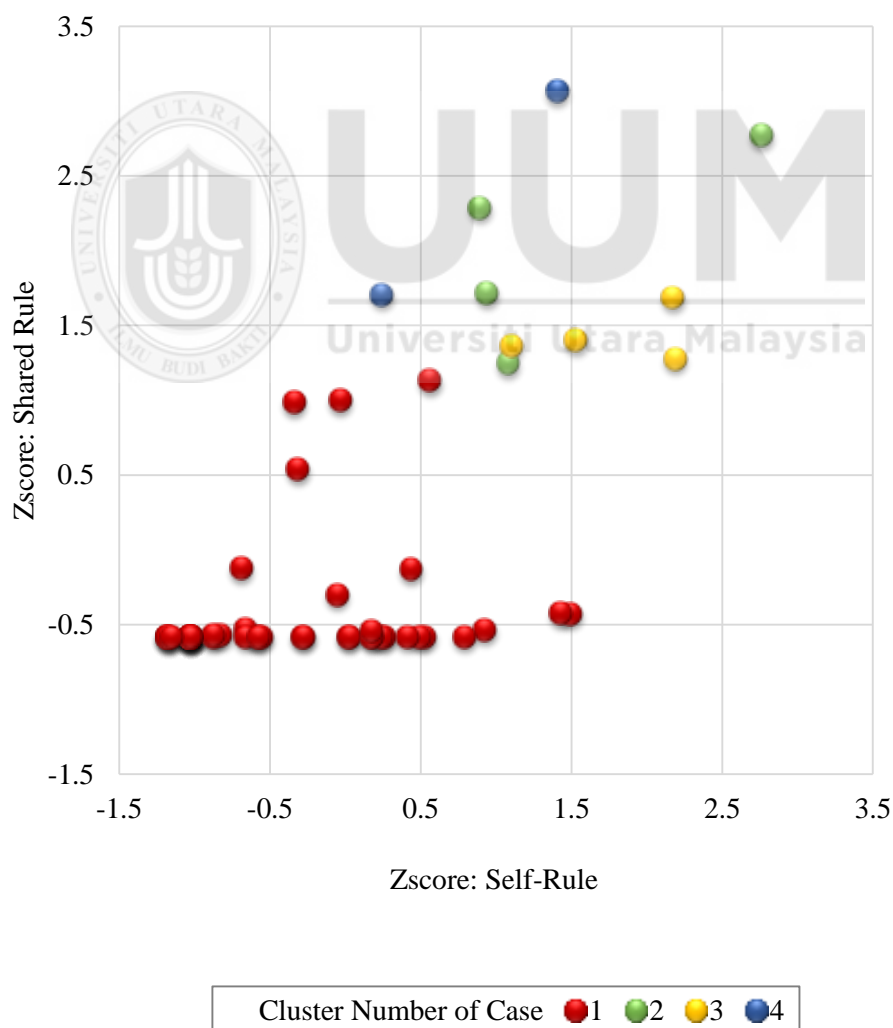
4.3.2.3   The 1990s

In the 1990s, the sample size was involved 70 countries, and the cluster number was calculated in Figure 4.12, Figure 4.13, and Figure 4.14. Based on those figures, the value of $k = 4$. As a result, the k-means test required four clusters to run all ten dimensions. Since the value of $k = 4$, the analysis of k-means continues to determine the signification and F value for 10 concepts.

Table 4.26
ANOVA Table for Four-Cluster Solution, 1990s

	Cluster		Error			
	Mean Square	df	Mean Square	df	F	Sig.
Z-score: institutional depth	14.286	3	.396	66	36.065	.000
Z-score: policy scope	16.152	3	.311	66	51.891	.000
Z-score: fiscal autonomy	12.267	3	.488	66	25.144	.000
Z-score: borrow autonomy	16.611	3	.290	66	57.196	.000
Z-score: representation	12.217	3	.490	66	24.926	.000
Z-score: law-making	14.164	3	.402	66	35.264	.000
Z-score: executive control	13.582	3	.428	66	31.730	.000
Z-score: fiscal control	18.613	3	.199	66	93.349	.000
Z-score: borrow control	22.807	3	.009	66	2595.144	.000
Z-score: constitutional reform	17.199	3	.264	66	65.224	.000

The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

Table 4.26 reveals that the borrowing control had a greater effect in identifying the cluster, since $F = 2595.144$, $p < .05$. The next variable to influence the cluster is fiscal control $F = 93.349$, $p < .05$ and followed by constitutional reform $F = 65.224$, $p < .05$, while representation variable was the least important factor $F = 24.926$, $p < .05$.

Figure 4.32 shows Bolivia (2.608) was an outlier in cluster 1, with cluster membership distances ranging from 0.333 (Nicaragua) to 2.425 (Denmark). Cluster 2 had a cluster membership distance ranging from 1.534 (Spain) to 2.860 (Belgium), cluster 3 had a cluster membership distance ranging from 1.606 (Argentina) to 2.782 (Netherlands), and cluster 4 had a cluster membership distance ranging from 1.550 (Brazil) to 3.497 (United States).

Figure 4.32
Distance of Case by Cluster Number, 1990s
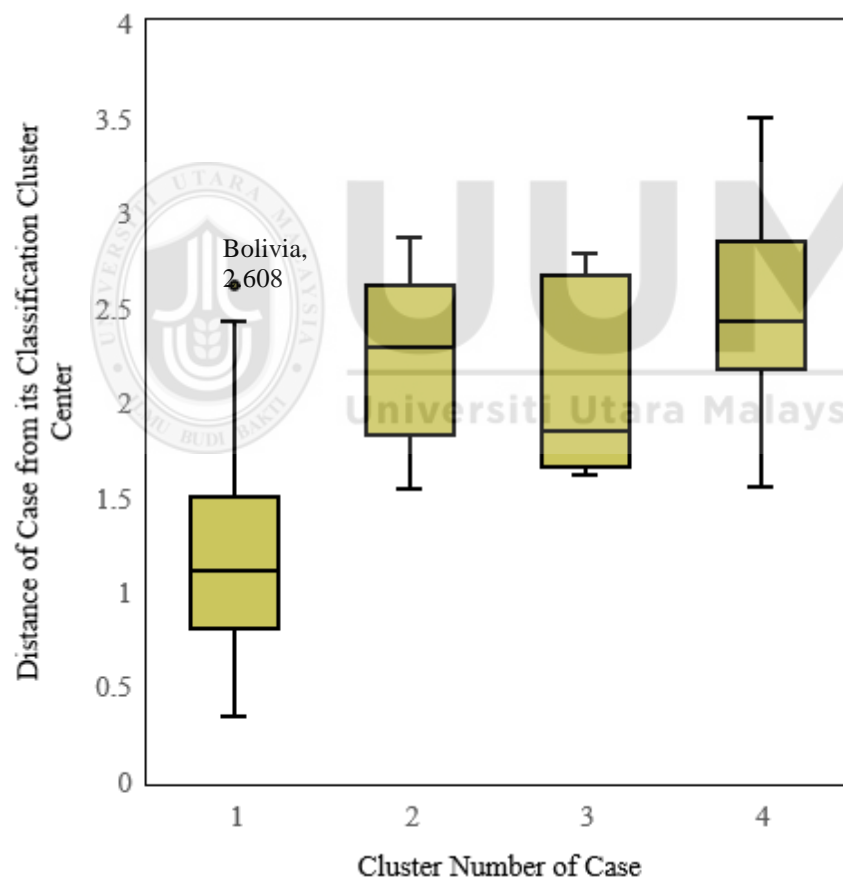
The final cluster centres for the four-cluster solution are listed in Table 4.27. The resulting cluster centre was consistent with the characteristics of each variable.

Cluster 1

All variables in this cluster had a negative z-score. For cluster 1, this indicates that regional authorities in 46 countries were not granted autonomy or control over institutional depth, executive power, policy breadth, fiscal, borrowing, representation, legislative, and constitutional change.

Cluster 2

In Cluster 2, regional authorities in 5 countries had extraordinary autonomy and control over all domains, most notably borrowing.

Cluster 3

Regional tiers in 5 countries have been granted a substantial balance between autonomy and control over all domains except borrowing control in this cluster.

Cluster 4

The 14 countries in this cluster demonstrate how little power their regional level has had over institutional depth, policy scope, fiscal autonomy, borrowing autonomy, and representation. Regrettably, the fiscal and borrowing control scores were all negative.

Table 4.27

Final Cluster Centres, 1990s

	Cluster						
	1				2	3	4
Countries	Nicaragua	Ireland	Lithuania	Sri Lanka	Spain	Argentina	Brazil
	Finland	Paraguay	Luxembourg	Dominican	Austria	Serbia and	Colombia
	Mongolia	Slovakia	Slovenia	Republic	Germany	Montenegro	Pakistan
	Myanmar	Chile	Ukraine	Norway	Malaysia	Switzerland	Italy
	Thailand	Greece	South Korea	Japan	Belgium	Bosnia and	Russia
	Portugal	Trinidad and	Indonesia	Denmark		Herzegovina	Sweden
	Poland	Tobago	Uruguay	Bolivia		Netherlands	India
	United Kingdom	Albania	Philippines				Bangladesh
	Panama	Croatia	Hungary				France
	Costa Rica	Czech Republic	Ecuador				Mexico
	Romania	El Salvador	Papua New				Canada
	Bulgaria	Estonia	Guinea				Peru
	Guatemala	Iceland	Turkey				Australia
	Honduras	Latvia	New Zealand				United States
Number of cases	46				5	5	14
Z-score: institutional depth	-.55919				1.44968	.95746	.97765
Z-score: policy scope	-.58864				1.48263	1.45110	.88633
Z-score: fiscal autonomy	-.51145				1.12239	1.42505	.77068
Z-score: borrow autonomy	-.60845				1.04199	1.29722	1.16375
Z-score: representation	-.51425				1.39765	.99760	.83423
Z-score: law-making	-.49643				1.27198	2.00452	.46095
Z-score: executive control	-.45680				2.25663	.18994	.62714
Z-score: fiscal control	-.41620				2.05391	2.29343	-.18512
Z-score: borrow control	-.26949				3.56454	-.28559	-.28559
Z-score: constitutional reform	-.55895				2.14080	1.39139	.57507

*Note. * Outlier*

Next, Figure 4.33 highlights and enhances the features of each cluster. As demonstrated in the figure, cluster 1 scored negatively on all measures of autonomy and control, while cluster 2 scored positively on all measures, indicating greater autonomy and control over all areas. Whereas cluster 3 had equality in both autonomy and control, they lacked control over borrowing. While cluster 4 has a limited level of autonomy and control, it does not have fiscal and borrowing controls where the scores are all negative.

Figure 4.33
Cluster Centres of Each RAI's Concept by Clusters, 1990s
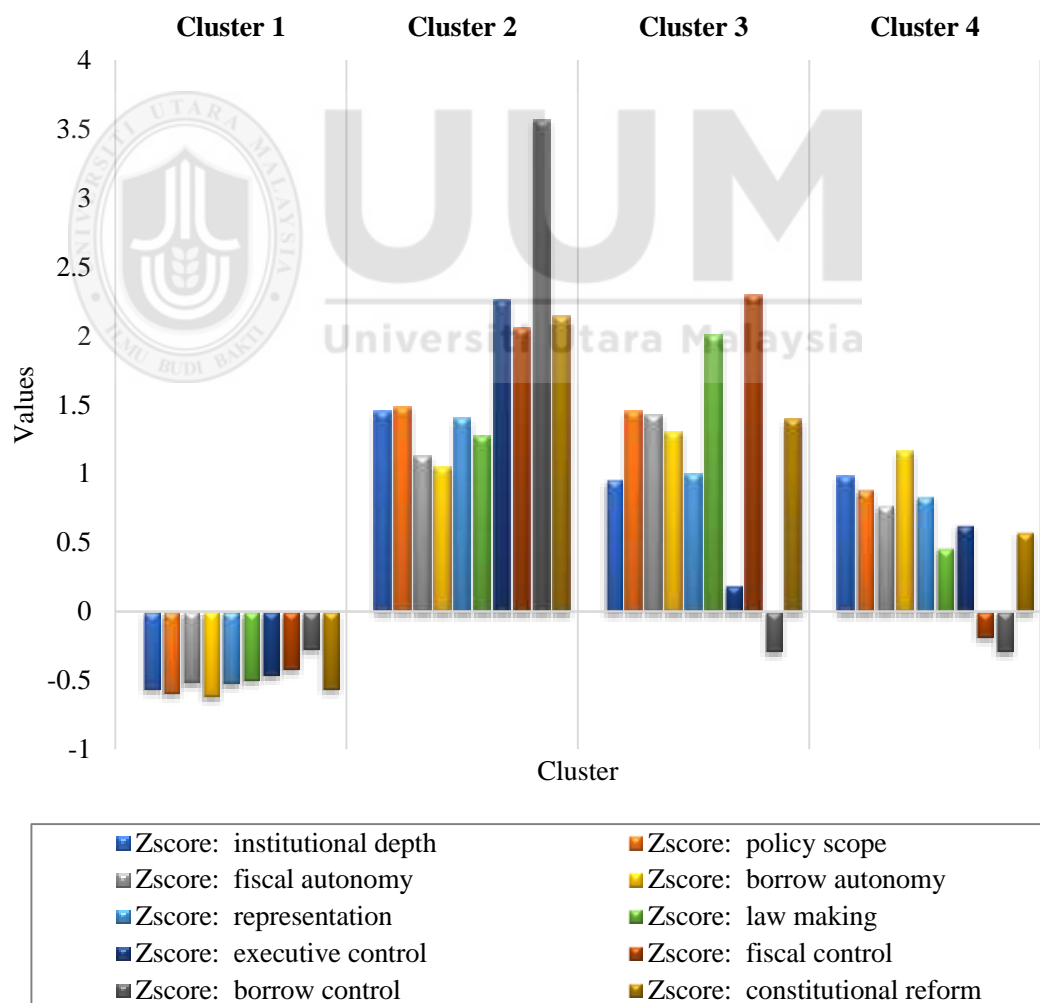
4.3.2.3.1 Self-Rule & Shared Rules

As per Figure 4.34, cluster 1 depicts the regional tier's relative lack of authority, autonomy, and control over self-rule and shared rule. In contrast to cluster 2, the regional governments were given extensive autonomy and authority over both self-rule and shared rule. While cluster 3 shows a moderate to high level of self-rule and a moderate level of shared rules with regional authorities, cluster 4 demonstrates a moderate level of self-rule but a low to moderate level of shared rule domains.

Figure 4.34
Self-Rule and Shared Rules by Cluster, 1990s
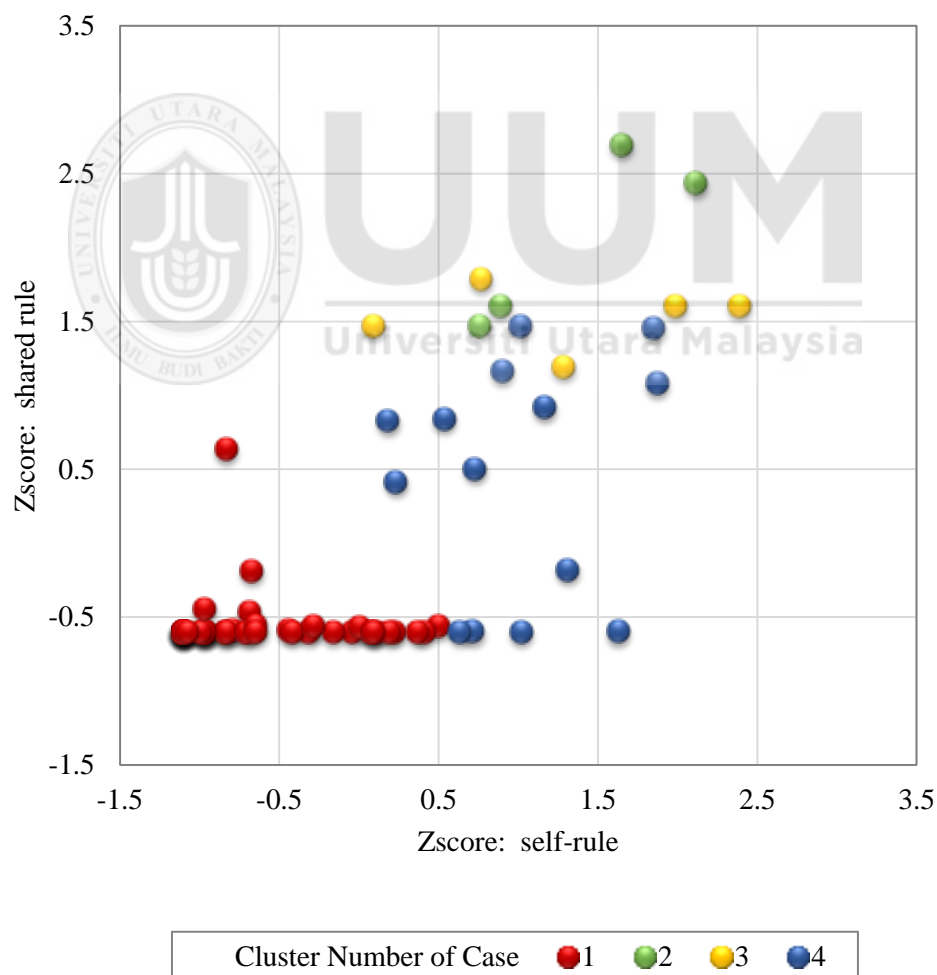
4.3.2.4　The 2000s

This time frame covered $n=70$ sample countries, and the number of clusters was found to be $k = 4$ (see Figure 4.15, Figure 4.16, and Figure 4.17). In Table 4.28, borrowing control $F = 126.473$, $p <.05$, and fiscal control $F = 125.510$, $p <.05$, had a larger impact on cluster identification. Following that, executive control $F = 72.182$, $p <.05$ influences the cluster, followed by constitutional reform $F = 64.092$, $p <.05$. Rather than that, the least significant element was representation $F = 12.490$, $p <.05$.

Table 4.28
ANOVA Table for Four-Cluster Solution, 2000s

	Cluster		Error			
	Mean Square	df	Mean Square	df	F	Sig.
Z-score: institutional depth	10.927	3	.549	66	19.913	.000
Z-score: policy scope	13.997	3	.409	66	34.205	.000
Z-score: fiscal autonomy	13.972	3	.410	66	34.051	.000
Z-score: borrow autonomy	13.946	3	.412	66	33.886	.000
Z-score: representation	8.329	3	.667	66	12.490	.000
Z-score: law-making	15.955	3	.320	66	49.820	.000
Z-score: executive control	17.627	3	.244	66	72.182	.000
Z-score: fiscal control	19.570	3	.156	66	125.510	.000
Z-score: borrow control	19.592	3	.155	66	126.473	.000
Z-score: constitutional reform	17.123	3	.267	66	64.092	.000

Note. The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

Figure 4.35 was helpful for identifying outliers within the membership of a cluster. The closer the countries in clusters were the smaller the boxplot distance. Cluster 1 had a cluster membership distance ranged from of 0.565 (Ukraine) to 2.780 (Bolivia). Cluster 2's distance cluster membership ranged from 1.496 (Switzerland) to 3.310

(India), cluster 3's distance cluster membership ranged from 1.604 (Serbia and Montenegro) to 2.763 (Bosnia and Herzegovina), and cluster 4's distance cluster membership ranged from 1.859 (Belgium) to 2.602 (Austria).

Figure 4.35
Distance of Case by Cluster Number, 2000s
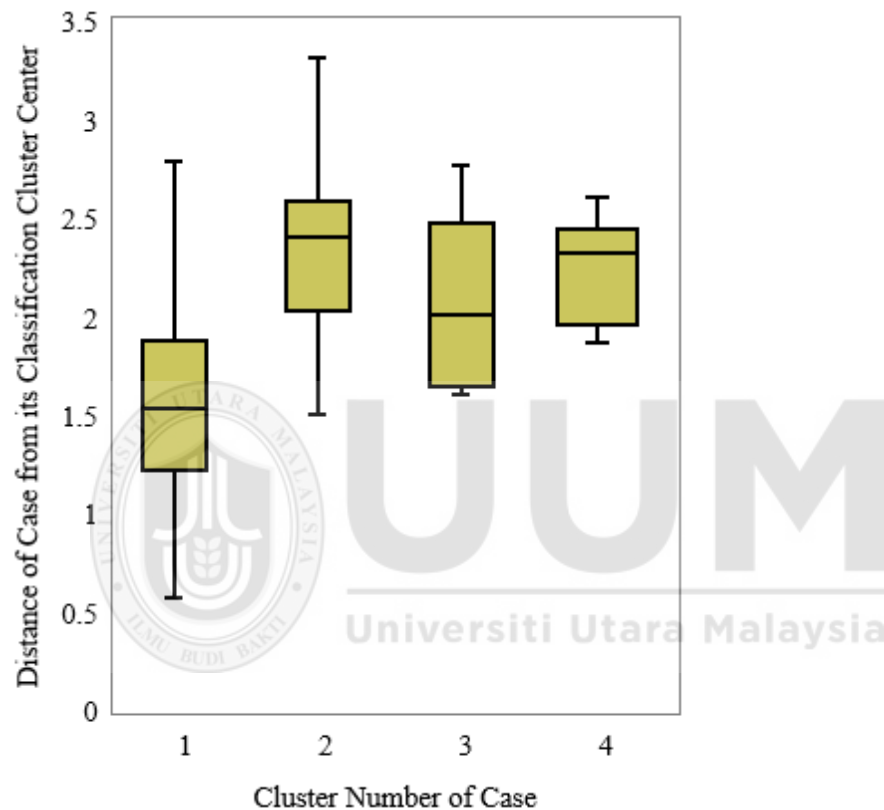
The final cluster centres for the four-cluster solution are listed in the Table 4.29. The resulting cluster centre was consistent with the characteristics of each variable.

Cluster 1

All variables of 51 countries in this cluster showed a negative z-score. It means no autonomy and control was given to their regional authorities over institutional depth,

policy scope, fiscal and borrowing autonomy and control, representation, law-making, executive control, and constitutional reform.

Cluster 2

Regional governments in 10 countries have been granted a substantial balance between autonomy and control over all domains except borrowing control in this cluster.

Cluster 3

Regional government in this cluster demonstrate that they have been granted veto power over fiscal control and law-making in a national legislature. Regional tiers, on the other hand, severely limited borrowing and executive control.

Cluster 4

As a result of the all-positive score, cluster 4 consists of 5 countries with tremendous autonomy and control over all domains, most notably borrowing.

Table 4.29

Final Cluster Centres, 2000s

	Cluster							
	1					2	3	4
Countries	Ukraine	Chile	Finland	Greece	Luxembourg	Switzerland	Serbia and	Belgium
	Panama	South Korea	Turkey	Norway	Sweden	Brazil	Montenegro	Australia
	Thailand	Romania	Croatia	Peru	Dominican	Canada	Argentina	Spain
	Nicaragua	El Salvador	Bulgaria	Trinidad and	Rep.	Russia	Netherlands	Germany
	Lithuania	Albania	Guatemala	Tobago	Denmark	Italy	Bosnia and	Austria
	Paraguay	Mongolia	Honduras	Ecuador	Colombia	Mexico	Herzegovina	
	Portugal	Slovakia	Slovenia	Costa Rica	Uruguay	United States		
	Papua New Guinea	Sri Lanka	Pakistan	Estonia	Japan	Malaysia		
	Czech Republic	Hungary	Poland	Iceland	Indonesia	France		
	Ireland	Bangladesh	Philippines	Latvia	Bolivia	India		
	Myanmar	United Kingdom	New Zealand					
Number of cases	51					10	4	5
Z-score: institutional depth	-.40874					1.12909	.62563	1.41047
Z-score: policy scope	-.47161					1.23792	1.13701	1.42496
Z-score: fiscal autonomy	-.46984					1.40020	1.17258	1.05393
Z-score: borrow autonomy	-.46626					1.29596	1.56503	.91193
Z-score: representation	-.35741					.97634	.57170	1.23554
Z-score: law-making	-.48149					.85694	1.98021	1.61317
Z-score: executive control	-.44171					1.00987	-.08965	2.55740
Z-score: fiscal control	-.43879					.16203	2.62926	2.04819
Z-score: borrow control	-.28356					-.08330	-.29412	3.29423
Z-score: constitutional reform	-.51495					1.21060	1.21508	1.85919

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The distinct characteristics of each cluster were shown in Figure 4.36. As the figure indicates, cluster 1 lacked regional autonomy and control, in contrast to cluster 4, which had substantial authority and control across all domains. On the other hand, clusters 2 had been granted equality of autonomy and control, but limited control over borrowing. Cluster 3 had veto over fiscal control but significantly restricted borrowing and executive control.

Figure 4.36
Cluster Centres of Each RAI's Concept by Clusters, 1990s
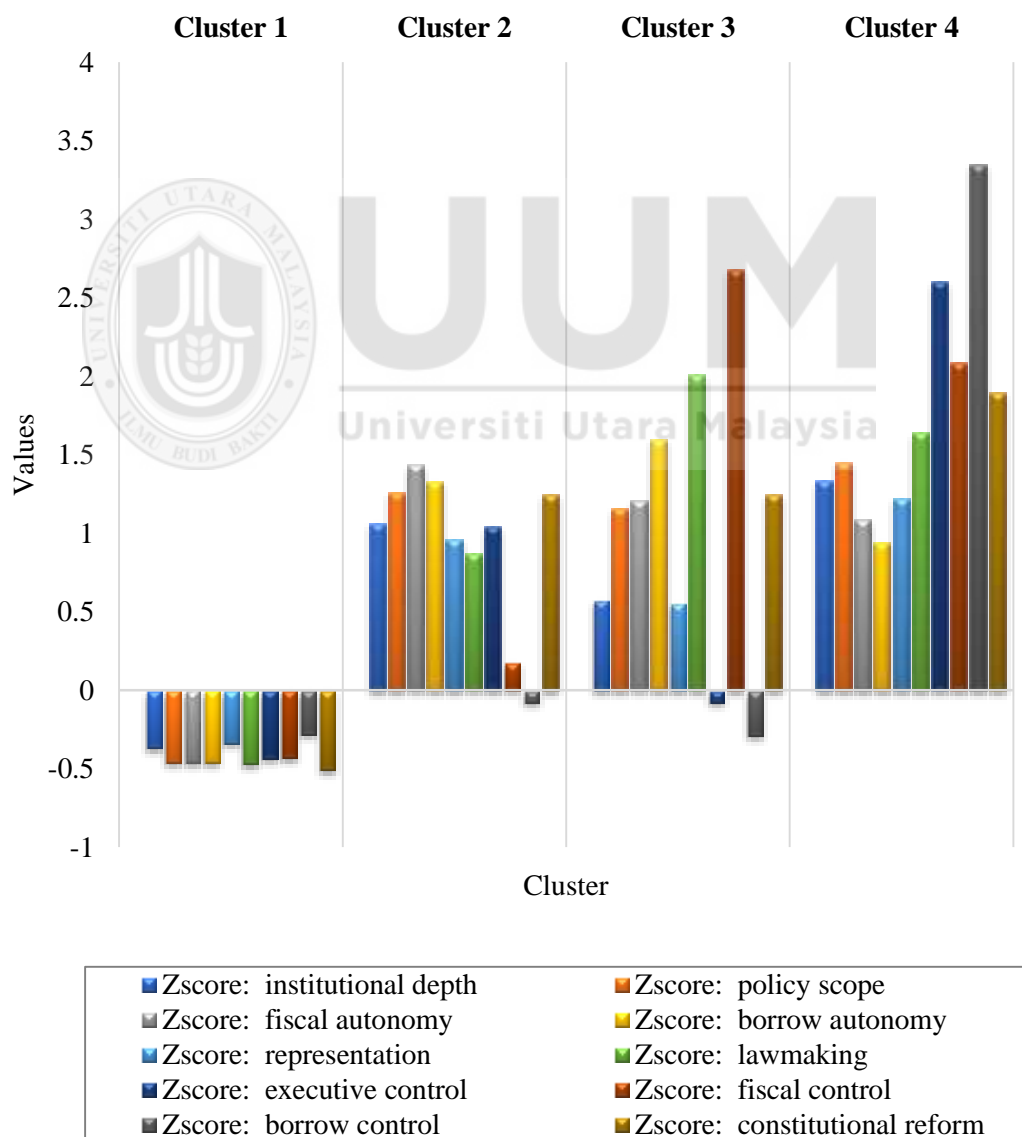
4.3.2.4.1   Self-Rule & Shared Rules

In Figure 4.37, cluster 1 revealed that limited power for self-rule and shared rules had been relegated to regional levels. It contrasts with cluster 4, where the regional governments grant more self-rule and share rules. In contrast to cluster 3, where regional authorities provided modest self-rule and shared rule domains, cluster 2 shows that self-rule involves more than shared rules for regional governments.

Figure 4.37
Self-Rule and Shared Rules by Cluster, 2000s
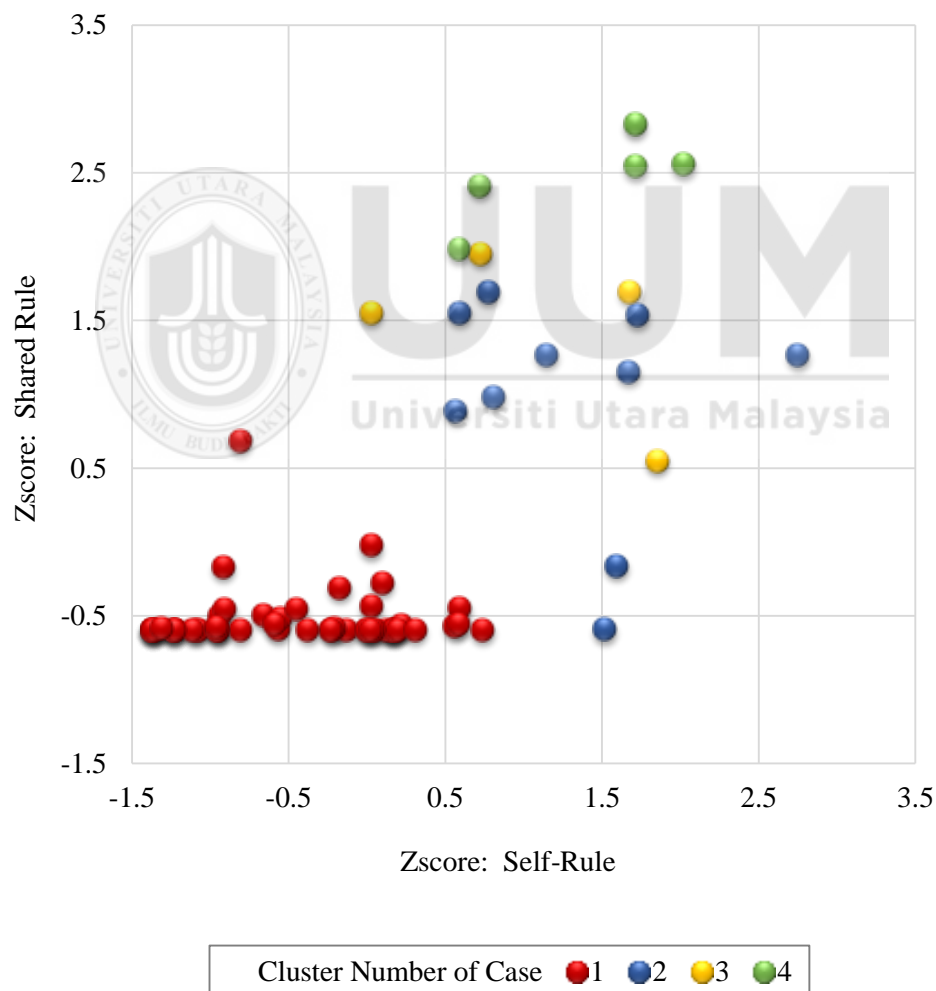
4.3.2.5 The 2010s

The sample size for the decade 2010s was $n=70$ countries, and the cluster number was $k = 4$, as determined in Figure 4.18, Figure 4.19, and Figure 4.20. According to Table 4.30, there was a significant difference among the 4 clusters. Borrowing control was among the 10 concepts that had the greatest influence on cluster identification, as $F = 199.355$, $p < .05$. The next attribute is constitutional reform, $F = 122.467$, $p < .05$, while administration autonomy, $F = 31.967$, $p < .05$, was the least significant attribute influencing the cluster.

Table 4.30
ANOVA Table for Four-Cluster Solution, 2010s

	Cluster		Error			
	Mean Square	df	Mean Square	df	*F*	Sig.
Z-score: institutional depth	12.780	3	.400	66	31.967	.000
Z-score: policy scope	16.741	3	.307	66	54.471	.000
Z-score: fiscal autonomy	15.868	3	.335	66	47.399	.000
Z-score: borrow autonomy	14.975	3	.361	66	41.464	.000
Z-score: representation	14.275	3	.407	66	35.089	.000
Z-score: law-making	16.108	3	.343	66	46.916	.000
Z-score: executive control	15.584	3	.358	66	43.508	.000
Z-score: fiscal control	15.729	3	.354	66	44.457	.000
Z-score: borrow control	21.233	3	.107	66	199.355	.000
Z-score: constitutional reform	19.881	3	.162	66	122.467	.000

The *F* tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

Figure 4.38 shows outliers in cluster 1: Dominican Republic (2.117) with cluster membership distances ranging from 0.326 (Albania) to 1.563 (Finland), and cluster 4: Bosnia and Herzegovina (4.005) with cluster membership distances ranging from

1.635 (Australia) to 2.580 (Spain). cluster 2 had a cluster membership distance of 0.574 (Poland) to 3.154 (France), whereas cluster 3 had a cluster membership distance of 1.769 (Brazil) to 3.620 (India).

Figure 4.38
Distance of Case by Cluster Number, 2010s
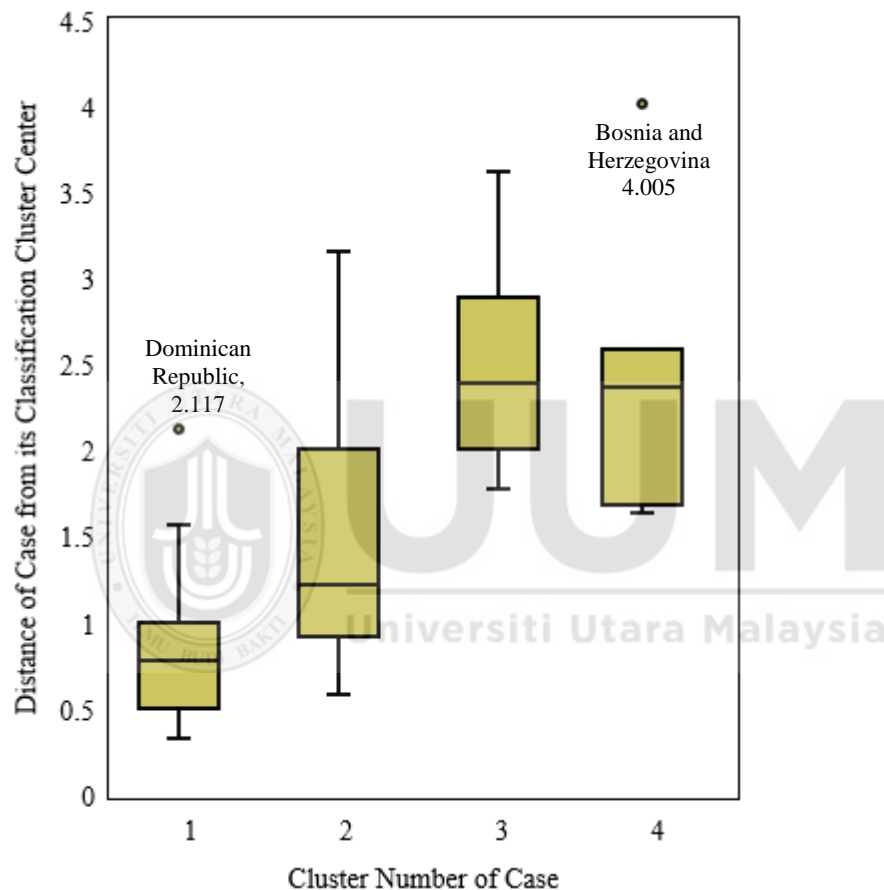
The final cluster centres for the four-cluster solution are listed in the Table 4.31. The cluster centre that resulted was aligned with the criteria of each variable.

Cluster 1

The z-scores of all variables were negative. This shows that the regional level in 25 countries had the least autonomy and control regarding institutional depth, executive

power, policy scope, fiscal, borrowing, representation, law-making, and constitutional change.

Cluster 2

In this cluster, the regional level in 29 countries is given little autonomy over institutional depth, policy scope, borrowing, and representation. Unfortunately, fiscal autonomy and control, law-making, executive control, borrowing control, as well as constitutional change, were all deficient as the z-score was negative.

Cluster 3

Regional authorities in 11 countries granted a substantial balance between autonomy and control over all domains except borrowing control in this cluster.

Cluster 4

In Cluster 4, regional governments in 5 countries had extraordinary autonomy and control over all domains, most notably borrowing control.

Table 4.31

Final Cluster Centres, 2010s

	Cluster							
	1			2			3	4
Countries	Albania Bulgaria Lithuania Slovenia Myanmar Ireland El Salvador Nicaragua Latvia	Guatemala Honduras Chile Panama Trinidad and Tobago Mongolia Costa Rica Estonia	Iceland Luxembourg Serbia Ukraine Denmark Finland *Dominican Republic**	Poland Philippines United Kingdom Croatia Ecuador Hungary Greece Sri Lanka Romania Colombia Turkey	Czech Republic Portugal Slovakia Paraguay New Zealand Papua New Guinea Norway Thailand Sweden Bangladesh	Japan Uruguay Bolivia South Korea Peru Indonesia France	Brazil Malaysia Pakistan Mexico Canada Russia United States Italy Switzerland Netherlands India	Australia Belgium Argentina Austria Germany Spain *Bosnia and Herzegovina**
Number of cases	24			28			11	7
Z-score: institutional depth	-.94082			.13897			.94538	.98211
Z-score: policy scope	-1.04857			.21654			.93289	1.36039
Z-score: fiscal autonomy	-.75856			-.16266			1.42521	1.23901
Z-score: borrow autonomy	-.97275			.21426			1.06004	1.11040
Z-score: representation	-1.07676			.38028			.65878	.94127
Z-score: law-making	-.53243			-.43991			1.14555	1.75933
Z-score: executive control	-.49030			-.40894			.99878	1.90274
Z-score: fiscal control	-.45398			-.35394			.54468	2.25146
Z-score: borrow control	-.36401			-.34915			-.06776	2.85511
Z-score: constitutional reform	-.51829			-.53434			1.62147	1.52593

*Note. * Outlier*

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Next, Figure 4.39 displays the characteristics of each cluster. As illustrated in the figure, cluster 1 had low regional autonomy and control, in contrast to cluster 4, which had greater autonomy and control over all areas. cluster 2, on the other hand, had distinctive properties. This cluster had a limited level over four domains of autonomy. Nevertheless, fiscal autonomy and control, law-making, executive control, borrowing control, and constitutional change were all negative. Whereas clusters 3 had equality in both autonomy and control, but they lacked control over borrowing.

Figure 4.39
Cluster Centres of Each RAI's Concept by Clusters, 2010s
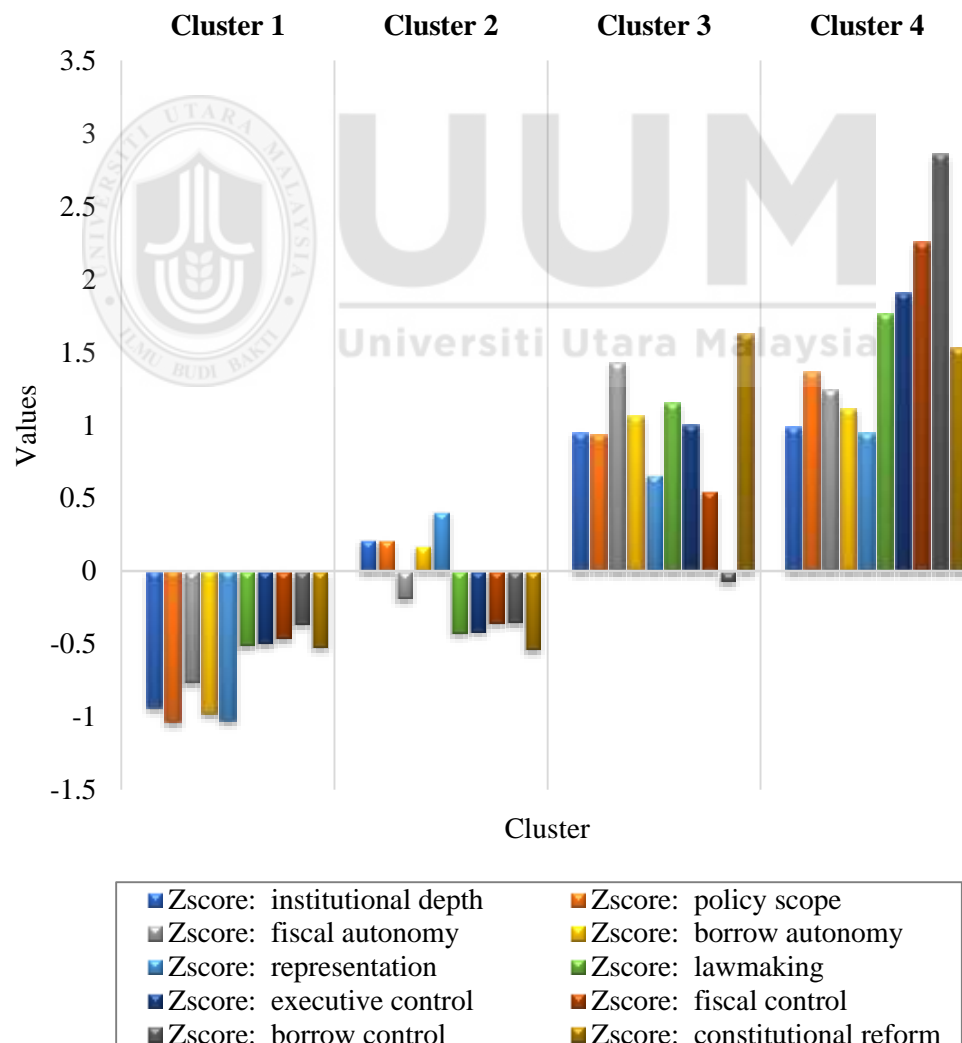
4.3.2.5.1 Self-Rule & Shared Rules

As shown in Figure 4.40, cluster 1 illustrates the regional tier's relative lack of power, autonomy, and control over self-rule and shared rules. In contrast to cluster 4, regional authorities were granted significant autonomy and power over self-rule and shared rule. While cluster 2 displays a moderate degree of self-rule but a low level of shared rules with regional authorities. In cluster 3, both self-rule and shared rule domains are moderated.

Figure 4.40
Self-Rule and Shared Rules by Cluster, 2010s
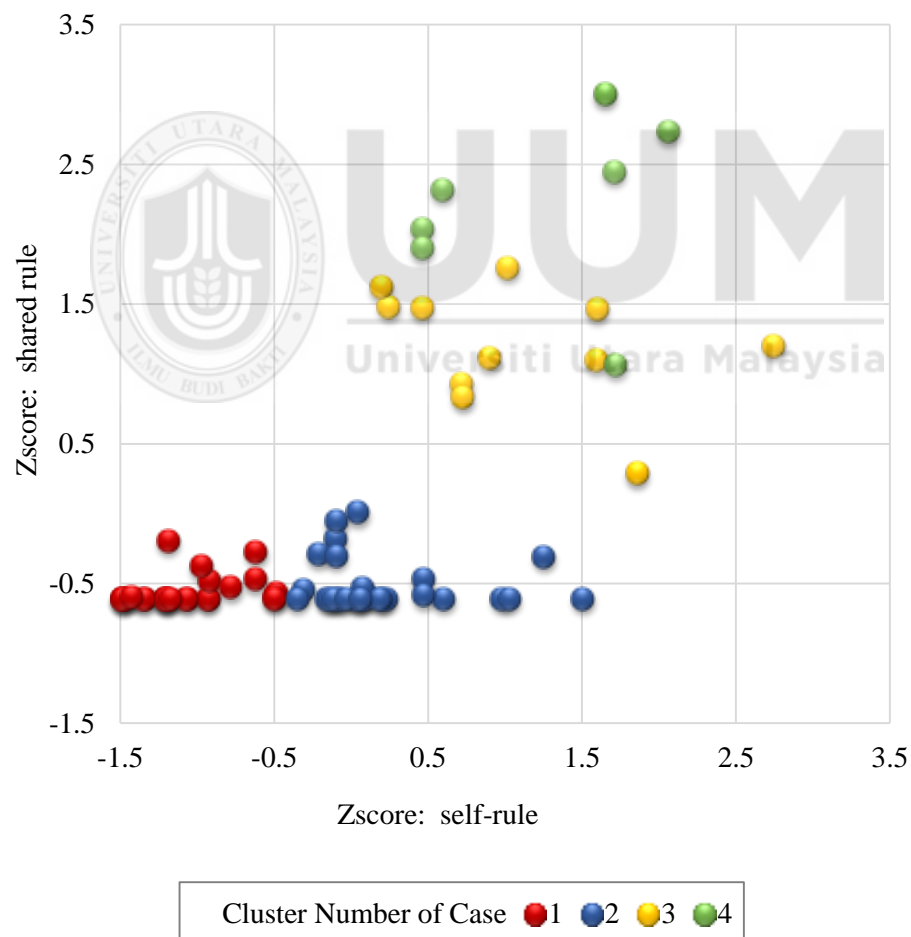
4.3.2.6   1970 to 2018

Since k-means tests performed over the last five decades have not generated consistent results in terms of cluster number organization and features, the cluster number for each state is likewise varied. This was solved by identifying paternity based on attributes score and categorizing it as a particular cluster number. As a result of these investigations, it has been established that:

Cluster 1: All scores on self-rule and shared rules were negative.

Cluster 2: A positive score on self-rule but a negative for shared rules.

Cluster 3: A positive score for all domains except score borrow control.

Cluster 4: All scores on self-rule and shared rules were positive.

After determining the cluster numbers, these *n*=70 countries were reorganized based on their score groupings to create more distinct clusters. Figure 4.41 and Figure 4.42 illustrate each state's specific patterns over the past five decades. Throughout these five decades, some countries' positions within their respective clusters have remained static, while others have changed in reaction to changes in autonomous domains and control areas given to regional authorities.

According to Figure 4.41, the radar images generated were much smaller than the radar images produced in Figure 4.42, because most unitary countries are grouped into cluster 1. In contrast, the radar map of the federation state was much bigger, since the vast majority of the state was grouped into clusters 3 and 4.

Figure 4.41

Cluster Changes in Unitary Countries, 1970-2018.
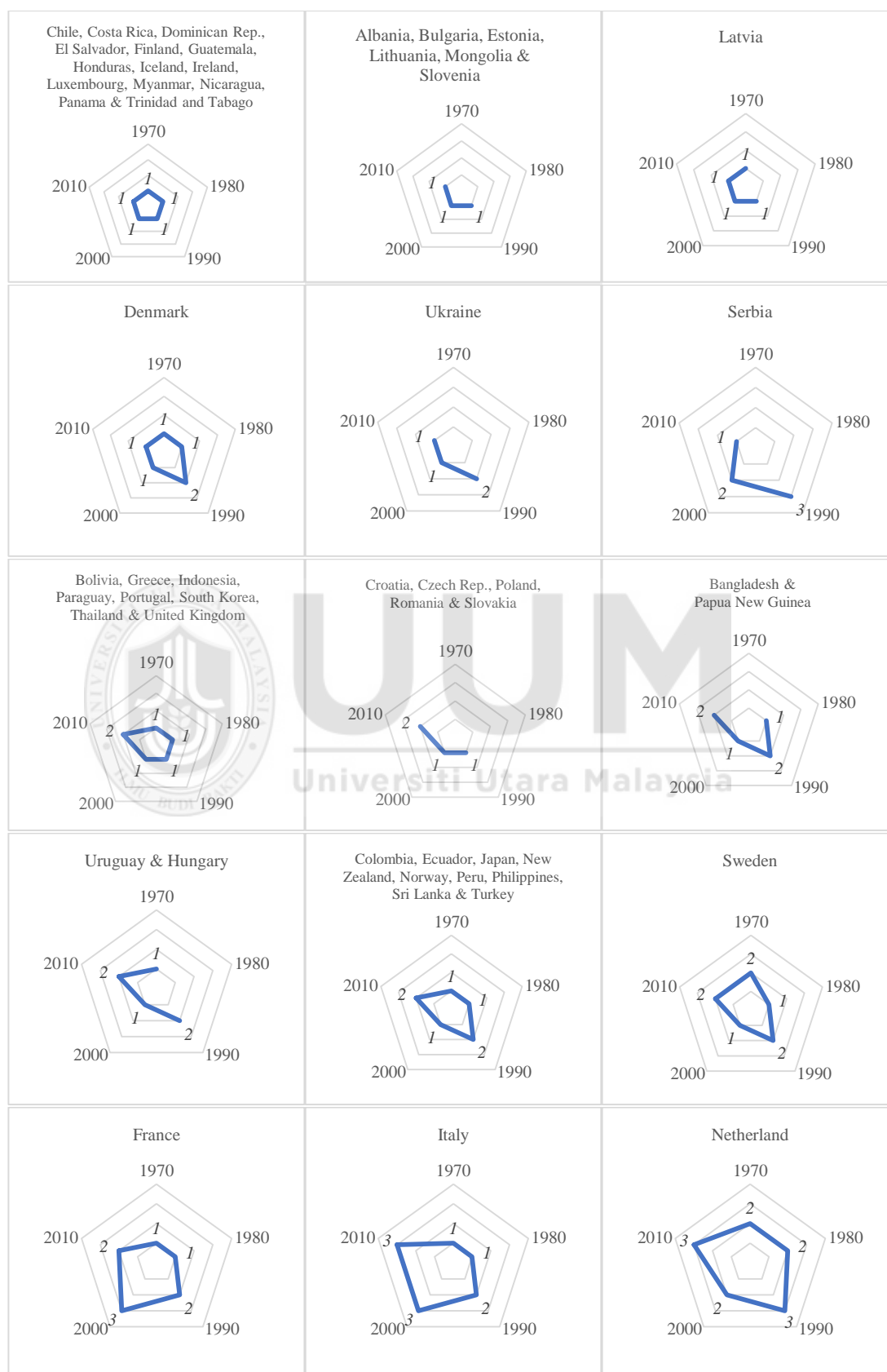
Note. 1: negative self-rule & shared rules, 2: positive self-rule but negative shared rules, 3: all positive except borrow control, 4: positive self-rule & shared rules.

Figure 4.42

Cluster Changes in Federation Countries, 1970-2018.
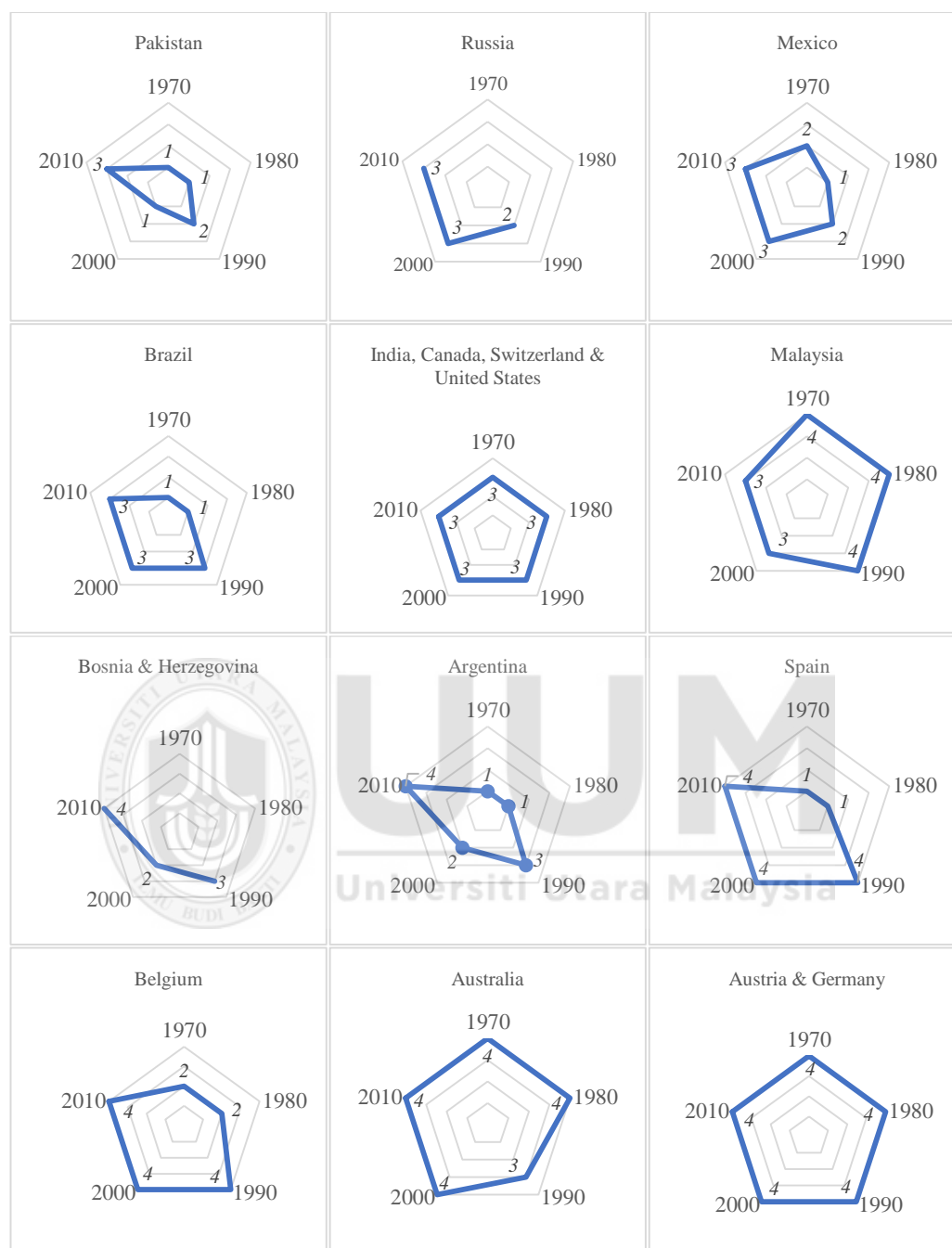
Note. 1: negative self-rule & shared rules, 2: positive self-rule but negative shared rules, 3: all positive except borrow control, 4: positive self-rule & shared rules.

As seen in Figures 4.41, the federalization process began in the 1980s and 1990s in a few unitary countries, whereas Figures 4.42 shows the changes in regional authority in federation countries. Numerous countries have had an expansion in self-rule and shared rules, leading to changes in regional authority from 1 to 2 (Italy, France) and even 1 to 4 (Spain), 1 to 3 (Argentina, Brazil), or 2 to 4 (Spain, Belgium). Consequently, the position of a particular state will fluctuate across clusters.

To simplify the countries classification procedure, the attributes of self-rule and shared rules were summed up into a significant dimension namely the regional authority. Figure 4.43 and Table 4.30 show the standings of countries according to regional authority z-score and government system (unitary or federation) by cluster.

Figure 4.43
Regional Authority and System of Government by Cluster
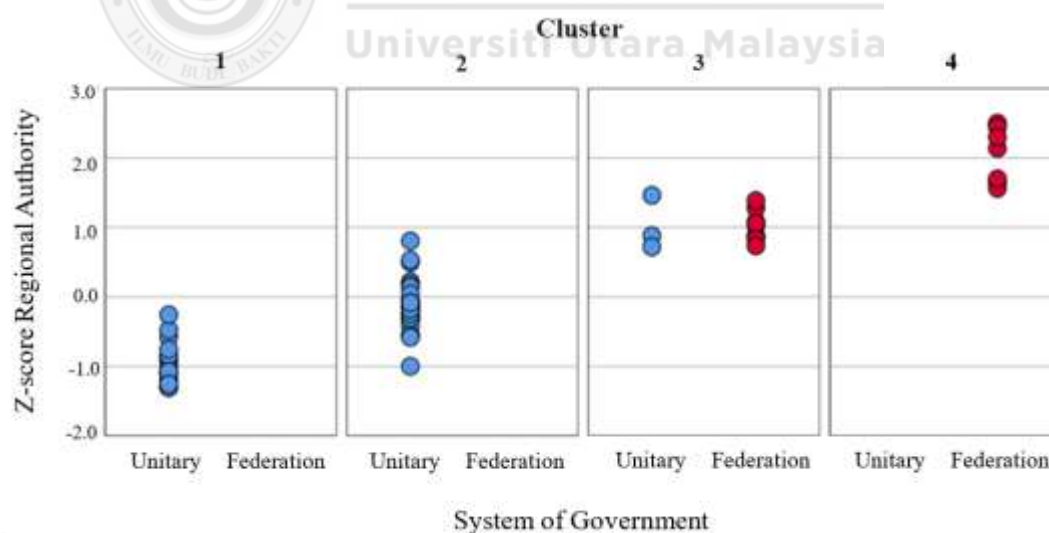
According to Figure 4.43, the regional authority's z-score position was low in cluster 1 and increased as it entered the fourth cluster. Additionally, this figure demonstrates

clearly that regional authority's z-scores were low in unitary systems yet high in federation systems.

Next, Table 4.32 was summarized in the following points.

Cluster 1:

- all $n=22$ unitary countries, had the lowest regional authority's score, with range $M=.00$ *(min)* to 5.42 *(max),* consisting of all negative z-scores with range $z=-1.1935$ *(min)* to -0.6032 *(max),* and the distance of case from its classification cluster centre was in range $DC=.238$ *(min)* to .352 *(max).*

- regional levels do not have authority in all areas.

Cluster 2:

- all $n = 29$ unitary countries, with range, $M=5.88$ *(min)* to 13.79 *(max)*, $z=-.5531$ *(min)* to .3084 *(max)* and, $DC=.344$ *(min)* to .518 *(max).*

- regional levels have limited authority (self-rule and shared rule).

Cluster 3:

- $n=12$ countries recorded as unitary ($n=3$) and federation ($n=9$), with range, $M=17.13$ *(min)* to 25.05 *(max)*, $z=.6722$ *(min)* to 1.5348 *(max)* and, $DC=.357$ *(min)* to .505 *(max).*

- regional granted substantial authority except borrowing control.

Cluster 4:

- all $n=7$ federation had the highest regional authority's score, with range $M=27.02$ *(min)* to 36.20 *(max),* consisting of all positive z-scores with range $z=1.7494$ *(min)* to 2.7492 *(max)*, and range $DC=.354$ *(min)* to .645 *(max).*

- regional granted complete authority in all areas.

Table 4.32

Regional Authority's Z-score, Mean and Distance of Cases by Cluster, 1970-2018.

	CLUSTER 1				CLUSTER 2				CLUSTER 3				CLUSTER 4		
Countries	Z-score	Mean	Dist*	Countries	Z-score	Mean	Dist*	Countries	Z-score	Mean	Dist*	Countries	Z-score	Mean	Dist*
Estonia	-1.1935	0.00	0.238	Greece	-0.5531	5.88	0.344	Mexico	0.6722	17.13	0.357	Spain	1.7494	27.02	0.354
Iceland	-1.1935	0.00	0.238	Myanmar	-0.5444	5.96	0.335	Netherlands	0.7016	17.40	0.328	Canada	1.8866	28.28	0.217
Luxembourg	-1.1935	0.00	0.238	Portugal	-0.5411	5.99	0.332	France	0.7681	18.01	0.262	India	1.9661	29.01	0.138
Trinidad and Tobago	-1.1608	0.30	0.206	Slovakia	-0.4649	6.69	0.256	Pakistan	0.7898	18.21	0.240	United States of America	2.0369	29.66	0.067
Costa Rica	-1.1293	0.59	0.174	South Korea	-0.4355	6.96	0.226	Brazil	0.8051	18.35	0.225	Bosnia and Herzegovina	2.0838	30.09	0.020
Guatemala	-1.0846	1.00	0.130	Sri Lanka	-0.4289	7.02	0.220	Argentina	0.9935	20.08	0.036	Belgium	2.2548	31.66	0.151
Honduras	-1.0846	1.00	0.130	Ukraine	-0.4202	7.10	0.211	Russia	1.0905	20.97	0.061	Germany	2.7492	36.20	0.645
El Salvador	-1.0530	1.29	0.098	Serbia	-0.4082	7.21	0.199	Malaysia	1.1307	21.34	0.101				
Bulgaria	-1.0454	1.36	0.090	Bolivia	-0.3865	7.41	0.177	Italy	1.1809	21.80	0.151				
Latvia	-1.0432	1.38	0.088	Czech Republic	-0.2884	8.31	0.079	Austria	1.2451	22.39	0.215				
Albania	-1.0399	1.41	0.085	Papua New Guinea	-0.2873	8.32	0.078	Australia	1.4433	24.21	0.414				
Slovenia	-1.0193	1.60	0.064	Ecuador	-0.2721	8.46	0.063	Switzerland	1.5348	25.05	0.505				
Lithuania	-0.9397	2.33	0.015	Turkey	-0.2612	8.56	0.052								
Ireland	-0.9201	2.51	0.035	Bangladesh	-0.2460	8.70	0.037								
Chile	-0.8886	2.80	0.067	Poland	-0.2372	8.78	0.028								
Nicaragua	-0.8733	2.94	0.082	Croatia	-0.2307	8.84	0.021								
Mongolia	-0.7938	3.67	0.161	United Kingdom	-0.2176	8.96	0.008								
Dominican Republic	-0.7481	4.09	0.207	Romania	-0.2089	9.04	0.000								
Panama	-0.7176	4.37	0.238	Philippines	-0.2046	9.08	0.005								
Paraguay	-0.6620	4.88	0.293	Uruguay	-0.2002	9.12	0.009								
Finland	-0.6250	5.22	0.330	Hungary	-0.1708	9.39	0.039								
Thailand	-0.6032	5.42	0.352	New Zealand	-0.1359	9.71	0.073								
				Norway	-0.0009	10.95	0.208								
				Indonesia	0.0939	11.82	0.303								
				Denmark	0.1048	11.92	0.314								
				Peru	0.1647	12.47	0.374								
				Sweden	0.2006	12.80	0.410								
				Colombia	0.2017	12.81	0.411								
				Japan	0.3084	13.79	0.518								

Note: Unitary, Federation

*Distance of Case from its Classification Cluster Centre

4.3.2.7 Re-Clustering Number

Figure 4.43 and Table 4.32 had reveals about the existence of two government systems in cluster 3. Since the unitary and federation were distinct government systems, this study, therefore, decided to separate both into another cluster as shown in Figure 4.44.

Figure 4.44
Re-clusters the Number of Cluster
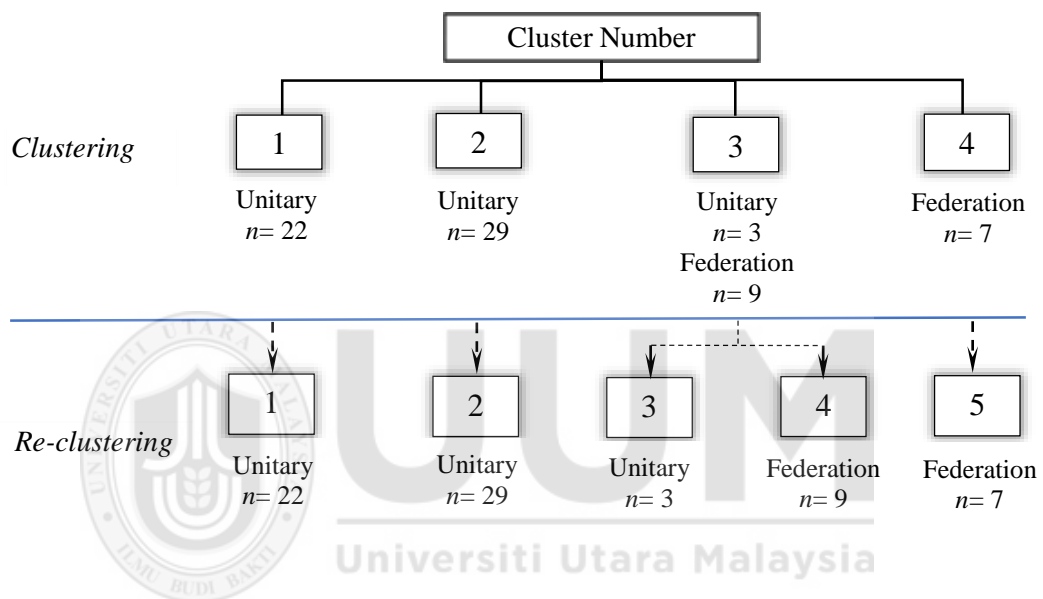
Figure 4.44 confirms that five clusters have formed. Cluster 1, cluster 2, and cluster 3 are unitary system clusters, while cluster 4 and cluster 5 are federation system clusters. The regional authority dimension initial study reveals considerable disparities between clusters (see subtopic 4.3.2.6). Figure 4.43 also provides a preliminary overview of the variance of regional power degree, allowing the five clusters to be labelled prior to the identification of the precise characteristics in the fourth step of the typology construct. The cluster position is depicted in Table 4.32 based on the z-score, mean, and distance of the cases utilised for grouping. The information from Table 4.32 and Figure 2.6 has been interpreted and applied to label the clusters as follows.

Cluster 1

This cluster lacks both self-rule and shared rule authority. This indicates that this country's system of government was very centralised. Therefore, cluster 1 was appropriately labelled as *"Centralized Unitary"*.

Cluster 2

In cluster 2, z-score was favourable for the autonomy characteristic but bad for the control attribute. In other words, cluster 2 has *"self-rule"* but no *"shared rules."* Hence, *"Decentralised Unitary"* suit to be named.

Cluster 3

Initial cluster analysis over RAI data has grouped unitary with several federated states. However, cluster 3 was now belonging to special unitary countries in which the region has the authority to self-rule and share rule, but not power over borrowed control. Cluster 3 can be called semi-federal; it reflects the global trend toward regionalism and decentralisation. Cluster 3 was thus labelled as *"Regionalized Unitary."*

Cluster 4

Since cluster 4 originated from the same cluster as cluster 3, several federated countries in this cluster have the same features as cluster 3. This cluster 4 does not implement a complete federation due to centralised power; hence, it was known as a quasi-federation. Then, cluster 4 is aptly named as *"Centralized Federation."*

Cluster 5

Cluster 5 was composed of several federated countries that have been granted regional power to exercise self-rule and shared rules. As a result, cluster 5 was appropriately named as the *"Decentralized Federation."*

4.4   Analysing Meaningful Relationship

To accomplish the construction of a typology, it was necessary to determine whether constructed types and attributes have meaningful relationships. As explained by Kluge (2000), a social phenomenon must not only be described, but also comprehended and explained in terms of meaningful relationships. Therefore, this section analyses meaningful relationships between constructed type and the attributes. For this reason, the correlation test was used; normal distributed attributes used Pearson's correlation, while non-parametric data used Spearman's correlation (see Table 3.4). Table 4.33 shows the correlation coefficient between construction type and federalism and decentralization attributes.

The constructed type refers to the five clusters that have been formed based on a unitary or federated government structure. As stated in the previous subtopic,

Cluster 1= *Centralised Unitary*,

Cluster 2 = *Decentralised Unitary,*

Cluster 3 = *Regionalised Unitary,*

Cluster 4 = *Centralised Federation,* and

Cluster 5 = *Decentralised Federation.*

If placed in a continuum, these five clusters can indicate the degree of federalism and decentralisation. The more to the left, the more unitary and powerless the territory was. In other words, cluster 1, *"Centralised Unitary",* occupies the position. On the other hand, regional powers are more extensive and expansive to the right end, as indicated by cluster 5 *"Decentralised Federation"*. Due to the fact that clusters can be of varying degrees of nature, their relationships with attributes may be examined in terms of significance, direction, and strength of relationship.

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Table 4.33

Correlations Coefficient for Attribution for Typology System Government

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CT	1	System of Government	-																								
	2	5 Clusters	.90**	-																							
Federalism	3	Size of Country	.45**	.48**	-																						
	4	Ethnic Diversity	.28*	.25*	.09	-																					
	5	Linguistic Diversity	.23	.16	.17	.52**	-																				
	6	Religious Diversity	.31**	.29*	-.12	.15	.05	-																			
	7	Democracy	.01	.06	-.15	-.2	-.39**	.22	-																		
	8	Party System	.06	-.02	.12	.17	.16	-.12	-.18	-																	
	9	Number of Chambers	.51**	;50**	.33**	.15	.14	.14	.07	.07	-																
	10	Regional Authority	.71**	.94**	.47**	.13	.04	.25*	.16	.00	.54**	-															
	11	Self-Rule	.63**	.83**	.47**	.14	.03	.14	.13	-.04	.44**	.87**	-														
	12	Shared Rule	.71**	.61**	.25*	.07	.07	.15	.17	-.06	.50	.61**	.69**	-													
	13	Institutional Depth	.57**	.73**	.48**	.16	.04	.07	.03	-0.1	.36**	.76**	.91**	.68**	-												
	14	Policy Scope	.65**	.83**	.42**	.11	.04	.20	.12	-.04	.43**	.86**	.97**	.71**	.87**	-											
	15	Fiscal Autonomy	.64**	.68**	.34**	.1	-.03	.24*	.23	-.06	.41**	.73**	.83**	.70**	.66**	.810**	-										
	16	Borrow Autonomy	.59**	.78**	.42**	.06	-.01	.15	.11	-.04	.39**	.81**	.91**	.61**	.76**	.872**	.78**	-									
	17	Representation	.48**	.71**	.52**	.18	.08	.08	.12	-.06	.44**	.77**	.93*	.61**	.89**	.871**	.67**	.76**	-								
	18	Law Making	.66**	.56**	.29*	.1	.14	.13	.06	-.02	.50**	.58**	.65**	.92**	.60**	.673**	.63**	.56**	.53**	-							
	19	Executive Control	.65**	.55**	.26*	.03	.03	.23	.24*	.05	.55**	.58**	.62**	.79**	.53**	.644**	.64**	.54**	.55**	.65**	-						
	20	Fiscal Control	.53**	.47**	-.01	.02	-.1	.18	.24*	.01	.27*	.45**	.52**	.79**	.49**	.526**	.53**	.43**	.41**	.66**	.60**	-					
	21	Borrow Control	.51**	.36**	-.05	-.04	-.1	.11	.15	.07	.18	.33**	.34**	.54**	.35**	.369**	.34**	.27*	.26*	.47**	.56**	.61**	-				
	22	Constitutional Reform	.70**	.63**	.25*	.09	.04	.16	.16	-.11	.44**	.60**	.67**	.94**	.66**	.682**	.67**	.60**	.54**	.90**	.66**	.74**	.47**	-			
Decent	23	Subnational Revenue	.51**	.47**	.36**	-.02	-.05	.25*	.26*	-.17	.14	.52**	.50**	.51**	.38**	.523**	.61**	.48**	.37**	.48**	.47**	.42**	.22	.52**	-		
	24	Subnational Expenditure	.24*	.24*	.01	-.06	-.08	.35**	0.21	-.28*	.07	.26*	.31**	.28*	.26*	.31*	.30*	.28*	.27*	.24*	.26*	.40**	.16	.27*	.21	-	
	25	Vertical Imbalance	-.36**	-.27*	-.2	-.12	.04	-.14	-.11	-.02	-.01	-.26*	-.28*	-.26*	-.250*	-.26*	-.41**	-.32*	-.11	-.25*	-.24	-.18	-.10	-.26*	-.40**	-.23	-
	26	Government Transfer	-.39**	-.32*	-.13	.00	.07	-.28	-.27	.06	-.06	-.30*	-.32*	.27	-0.2	.27	-.46**	-.41**	-.16	-.24	-.31*	-.23	-.06	-.27	-.38**	-.42**	.97**

*Note ** p < .01, * p < .05, (N=70), CT – Constructed Type, Decent - Decentralisation*

In order to simplify the analysis, Table 4.34 provides a summary of the correlation coefficient values from Table 4.33.

Table 4.34
Correlation Coefficient of Construct Types and Attributes

	Attributes	Significant	Relationship	r
Federalism	Size of Country	Significant/Positive	Moderate	.48**
	Ethnic Diversity	Significant/Positive	Weak	.25*
	Linguistic Diversity	Not Significant	-	.16
	Religious Diversity	Significant/Positive	Weak	.29*
	Democracy	Not Significant	-	.06
	Party System	Not Significant	-	-.02
	Number of Chambers	Significant/Positive	Moderate	.50*
	Regional Authority	Significant/Positive	Very Strong	.94**
	Self-Rule	Significant/Positive	Strong	.83**
	Institutional Depth	Significant/Positive	Strong	.73**
	Policy Scope	Significant/Positive	Strong	.83**
	Fiscal Autonomy	Significant/Positive	Moderate	.68**
	Borrow Autonomy	Significant/Positive	Strong	.78**
	Representation	Significant/Positive	Strong	.71**
	Shared Rule	Significant/Positive	Moderate	.61**
	Law Making	Significant/Positive	Moderate	.56**
	Executive Control	Significant/Positive	Moderate	.55**
	Fiscal Control	Significant/Positive	Moderate	.47**
	Borrow Control	Significant/Positive	Weak	.36**
	Constitutional Reform	Significant/Positive	Moderate	.63**
Decentr[1]	Subnational Revenue	Significant/Positive	Moderate	.47**
	Subnational Expenditure	Significant/Positive	Weak	.24*
	Vertical Imbalance	Significant/Negative	Weak	-.27*
	Government Transfer	Significant/Negative	Weak	-.32*

Note. [1] Decentralisation

Under the federalism variable, construct types (5 clusters) had very strong positive correlation with regional authority *r(68)=.94, p<.01,* whereas a strong positive correlation with self-rule *r(68)=.83, p<.01*, institutional depth *r(68)=.73, p<.01*, policy scope *r(68)=.83, p<.01*, borrow autonomy *r(68)=.78, p<.01*, representation *r(68)=.71, p<.01*. There was a moderate positive correlation between clusters and size of country *r(68)=.48, p<.01*, number of chambers *r(68)=.50, p<.05*, shared rule

r(68)=.61, p<.01, fiscal autonomy *r(68)=.68, p<.01*, law making *r(68)=.56, p<.01*, executive control *r(68)=.55, p<.01*, fiscal control *r(68)=.47, p<.01* and constitutional reform *r(68)=.63, p<.01*. The weak positive correlation was between clusters and ethnic diversity *r(68)=.25, p<.05*, religious diversity *r(68)=.29, p<.05*, and borrow control *r(68)=.36, p<.01*. On the other hand, there is no significant relationship between clusters with linguistic diversity, democracy, party system, and legislation type.

The correlation coefficient for the decentralisation showed that there was a moderate positive correlation between clusters and subnational revenue *r(68)=.47, p<.01*, and a weak positive correlation was found between clusters and subnational expenditure *r(68)=.24, p<.05*. On the other hand, there is a negative and weak significant relationship between clusters with vertical imbalance *r(68)=-.27, p<.05* and government transfer *r(68)= -.32, p<.05*.

4.5   Characterised Dimension in Construction Types

After classifying countries into clusters and analysing the correlations between clusters and dimensions, it is crucial to determine cluster characteristics. The variance between the groups was compared using ANOVA or the Kruskal-Wallis test. Since the test cannot determine precisely which groups differ, a post hoc analysis is performed to compare the variation between and within groups. Next, descriptive tests help summarise group data in an organised manner and permit inference of characteristics for each group.

4.5.1 Geography

Researchers (Schrems, 2007; Newton & Deth, 2010; Verney, 1995; Dikshit, 1971) identified the geography dimension to describe the size of a country with a unitary or federal system. Heretofore, Newton and Deth (2010), Wrede (2004), and Dikshit (1971) considered that large states were federations, while small states were unitary. Previous clustering found there were three unitary clusters and two federal clusters. ANOVA tests show that there was a statistically significant difference in the size of the countries in the five clusters. Table 4.35 shows F (4, 65) = 6.293, $p < .05$, $\eta^2_p =$ .279.

Table 4.35
ANOVA for Country Size

	Sum of Squares	df	Mean Square	F	Sig.	η^2_p
Between Groups	11.074	4	2.768	6.293	.000	.279
Within Groups	28.595	65	.440			
Total	39.669	69				

If a cluster differs by less than .05 in the sig. column those differences are statistically significant. Next post hoc test was made to identify cluster differences. Each cluster was compared to the other four clusters. According to the Table 4.36, the cluster 1 similar to cluster 2 ($p = .165$) and cluster 3 ($p = .929$), but was different than both cluster 4 and cluster 5 with probabilities of .001 and .037.

Table 4.36
Post Hoc over Country Size

Clusters	Clusters	Mean Difference (I-J)	Std. Error	Sig.
	2	-.48618	.18753	.165
1	3	-.37817	.40821	.929
	4	-1.18286	.26245	.001
	5	-.94952	.28783	.037

2	1	.48618	.18753	.165
	3	.10802	.40226	.999
	4	-.69668	.25308	.122
	5	-.46334	.27931	.603
3	1	.37817	.40821	.929
	2	-.10802	.40226	.999
	4	-.80470	.44218	.512
	5	-.57135	.45770	.815
4	1	1.18286	.26245	.001
	2	.69668	.25308	.122
	3	.80470	.44218	.512
	5	.23335	.33426	.974
5	1	.94952	.28783	.037
	2	.46334	.27931	.603
	3	.57135	.45770	.815
	4	-.23335	.33426	.974

Table 4.37 shows the descriptive result, which was cluster 1 M=4.90 and S =.65, cluster 2 M=5.39, SD=.46, cluster 3 M=5.28, SD=.59, cluster 4 M=6.08, SD=.92 and cluster 5 M=5.85, SD=1.03.

Table 4.37
Descriptive Statistics for Country Size

Cluster	N	Mean	Std. Deviation	Minimum	Maximum
1	22	4.9002	.65381	3.41	6.19
2	29	5.3864	.45903	4.63	6.28
3	3	5.2784	.58615	4.62	5.74
4	9	6.0831	.91544	4.62	7.23
5	7	5.8498	1.02691	4.48	7.00
Total	70	5.3649	.75823	3.41	7.23

From Table 4.37, following scale was determined by the range difference of 0.7638

between the minimum and maximum scores interpreted that:

```
3.413 -  4.176  =  very small
4.177 -  4.940  =  small
4.941 -  5.704  =  medium
5.705 -  6.468  =  large
6.469 -  7.232  =  very large
```

Figure 4.45
Size of Countries by Clusters
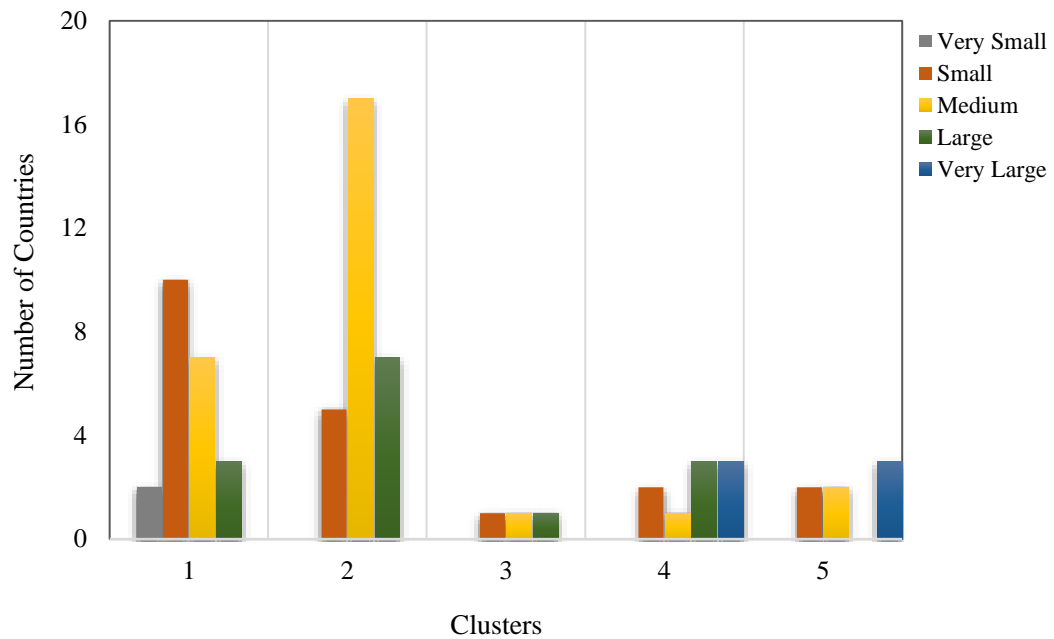
Based on the range, the country's size ranking has been identified by cluster, as illustrated in Figure 4.45. According to Figure 4.45, cluster 1 consists of $n=2$ very small, $n=10$ small, $n=7$ medium, and $n=3$ large-sized. Cluster 2 consists of $n=5$ small, the majority $n=17$ medium and $n=7$ large-sized. Cluster 3 has $n=1$ each of small, medium, and large-sized. In contrast to cluster 4, $n=2$ small, $n=1$ medium, and $n=3$ each large and very large-sized. Cluster 5 consists of $n=2$ small, $n=2$ medium, and $n=3$ very large-sized. It proves that all unitary clusters have countries that are "very small" but not "very large" in size, whilst the federation clusters have no "very small" countries yet reach "very large" in size.

From the range, this study considered cluster 1 $M=4.90$ was small, cluster 2 $M=5.39$ was medium, cluster 3 $M=5.28$ was medium, cluster 4 $M=6.083$ was large, and cluster 5 $M=5.850$ was large based on average score.

4.5.2   Sociology

The dimension of sociology was described in attribution of ethnic, linguistic, and religious diversity analysis. ANOVA test in Table 4.38 also shows all three sociology attributes were not significant as $p = >.05$. Ethnic diversity $F (4, 65) = 1.819$, $p = .136$, $\eta^2_p = .101$, linguistic diversity $F (4, 65) = 2.211$, $p = .077$, $\eta^2_p = .121$, and religious diversity $F (4, 65) = 2.200$, $p = .079$, $\eta^2_p = .006$.

Table 4.38
ANOVA of Ethnic Diversity, Linguistic Diversity and Religious Diversity

		Sum of Squares	df	Mean Square	F	Sig.	η^2_p
Ethnic Diversity	Between Groups	.038	4	.010	1.819	.136	.101
	Within Groups	.340	65	.005			
	Total	.378	69				
Linguistic Diversity	Between Groups	.037	4	.009	2.211	.077	.121
	Within Groups	.270	65	.004			
	Total	.307	69				
Religious Diversity	Between Groups	.020	4	.005	2.200	.079	.006
	Within Groups	2.710	65	.041			
	Total	3.079	69				

Table 4.39 shows the descriptive result of ethnic diversity, linguistic diversity, and religious diversity in each five clusters. Cluster 5 shows greater average value in all attributes, ethnic diversity (*M*=.399, *SD*=.068), linguistic diversity (*M*=.351, *SD*=.067), and religious diversity (*M*=.407, *SD*=.052).

Table 4.39
Descriptive Statistics for Sociology

	Cluster	N	Mean	Std. Deviation	Minimum	Maximum
Ethnic Diversity	1	22	.3530	.05394	.26	.46
	2	29	.3423	.08608	.21	.55
	3	3	.2774	.00525	.27	.28
	4	9	.3714	.07403	.27	.50
	5	7	.3985	.06745	.30	.52

	Total	70	.3522	.07400	.21	.55
Linguistic Diversity	1	22	.2888	.05813	.21	.39
	2	29	.2726	.06870	.17	.47
	3	3	.2846	.05223	.25	.34
	4	9	.3026	.06555	.22	.42
	5	7	.3514	.06718	.27	.47
	Total	70	.2899	.06668	.17	.47
Religious Diversity	1	22	.3570	.04151	.29	.47
	2	29	.3615	.05206	.23	.47
	3	3	.3897	.04861	.35	.44
	4	9	.3910	.04834	.32	.48
	5	7	.4069	.05149	.33	.48
	Total	70	.3696	.04991	.23	.48

As ANOVA found that the sociology dimension was not significant, Figure 4.46 further demonstrates that there are no statistically significant differences between the five clusters in terms of ethnic, language, or religious diversity. On the basis of the descriptive statistic results (Table 4.39), the range (*min* =.15 & *max* =.55) of the three attributes was computed to determine the position of social diversity level with range difference of 0.1, the scores interpreted that:

< 0.25 = Highly Homogeneous
$0.26 - 0.35$ = Homogeneous
$0.36 - 0.45$ = Heterogeneous
> 0.46 = Highly Heterogeneous

Based on the above range, the ethnic diversity has been identified by cluster, as illustrated in Figure 4.46. According to Figure 4.46, cluster 1 consists of *n*=13 homogeneous, and *n*=9 heterogeneous ethnic diversity. Cluster 2 had *n*=6 highly homogeneous, the majority *n*=14 is homogeneous, *n*=5 heterogeneous and *n*=4 highly heterogeneous. All *n*=3 Cluster 3 were homogeneous. While cluster 4 had *n*=4 each homogeneous and heterogeneous ethnic diversity, and *n*=1 highly heterogeneous.

Cluster 5 consist of the majority *n*=5 heterogeneous, whereas homogeneous and highly heterogeneous ethnic diversity are *n*=1 each.

Figure 4.46
Ethnic Diversity by Clusters
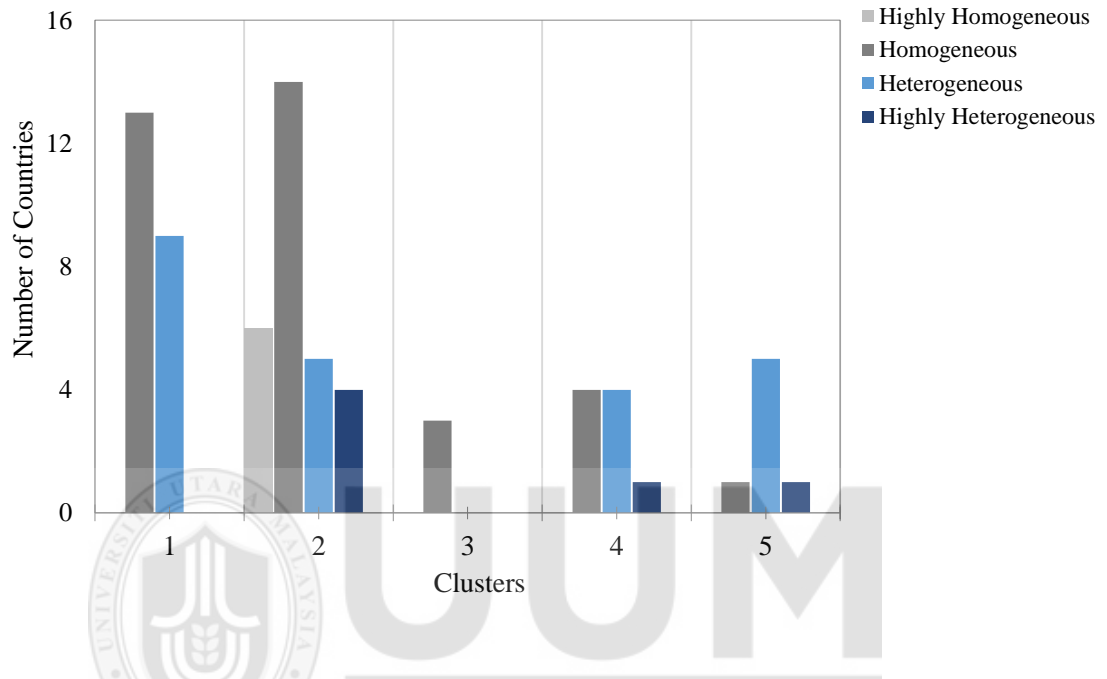
The linguistic diversity by cluster shown in Figure 4.47 was demonstrated from the range. Cluster 1 was comprised of *n*=8 highly homogenous, *n*=10 homogeneous and *n*=4 heterogeneous linguistic diversity. Cluster 2 had *n*=13 highly homogenous, *n*=14 homogeneous, and *n*=1 heterogeneous and highly heterogeneous each. There was *n*=2 highly homogeneous and *n*=1 homogeneous in cluster 3. Cluster 4 was comprised *n*=2 of both highly homogeneous and heterogeneous linguistic diversity and *n*=5 homogeneous linguistic diversity. Cluster 5 was predominantly *n*=5 homogeneous, and *n*=1 heterogeneous and highly heterogeneous, respectively.

Figure 4.47
Linguistic Diversity by Cluster
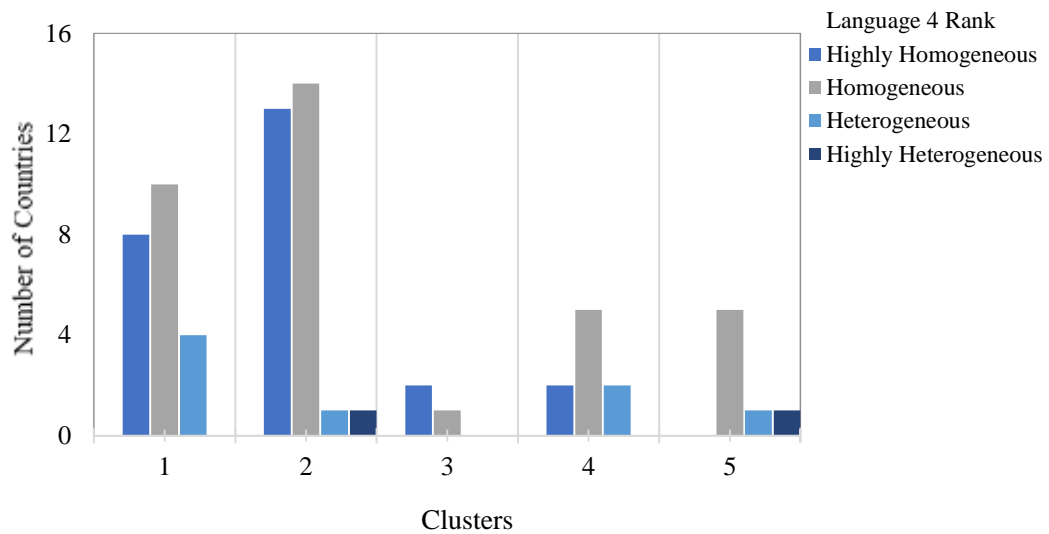
From the range, Figure 4.48 depicts the religious diversity by cluster. Cluster 1 had *n=12* homogenous, *n=9* heterogeneous and *n=1* highly heterogeneous religion. Cluster 2 had *n=1* highly homogenous, *n=15* homogenous, *n=12* heterogeneous and *n=1* highly heterogeneous religion. In cluster 3, *n=1* was homogenous and *n=2* was homogeneous religion. Cluster 4 had *n=2* homogenous, *n=6* heterogeneous and *n=1* highly heterogeneous religion. Cluster 5 was *n=2* homogeneous, predominately *n=4* heterogenous, with *n=1* highly heterogeneous religion.

Figure 4.48
Religious Diversity by Cluster
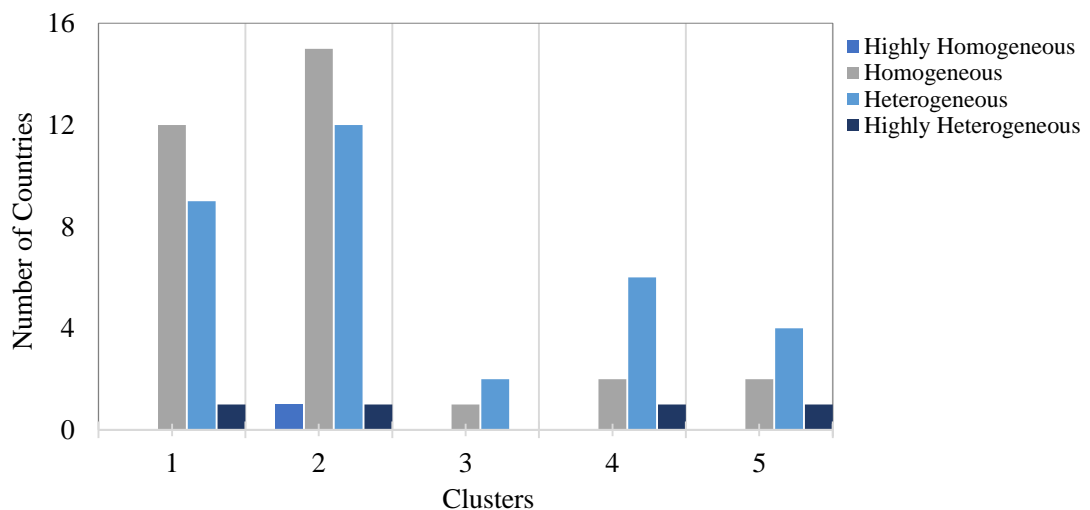
From the range, this study considers cluster 1 $M=.3530$, cluster 2 $M=.3423$ and cluster 3 $M=.2774$ were homogeneous ethnic, whilst cluster 4 $M=.3714$ and cluster 5 $M=.3985$ were heterogeneous ethnic. This study considered all clusters as homogeneous linguistically as cluster 1 $M=.2888$, cluster 2 $M=.2726$, cluster 3 $M=.2846$ and cluster 4 $M=.3026$ and cluster 5 $M=.3514$. In contrast to religious diversity, cluster 1 $M=.3570$ was homogeneous, but the rest, cluster 2 $M=.3615$, Cluster 3 $M=.3897$, Cluster 4 $M=.3910$ and Cluster 5 $M=.4069$ were heterogeneous.

4.5.3   Politics

The political dimension was defined in terms of democracy and party systems. The ANOVA test in Table 4.40 demonstrated that the democracy characteristic was not significantly different among five clusters, with $F\ (4,\ 65) = .743$, $p =.566$, $\eta^2_p = .044$.

Table 4.40
ANOVA of Democracy

	Sum of Squares	df	Mean Square	F	Sig.	η^2_p
Between Groups	6.947	4	1.737	.743	.566	.044
Within Groups	151.917	65	2.337			
Total	158.864	69				

Next Table 4.41 shows descriptive of democracy in each cluster. Cluster 3 had a higher regard for democracy, with $M=8.23$, $SD=.64$ and $Md=7.99$. Another cluster demonstrates a resemblance between cluster 5 and cluster 1 ($M=7.56$, $SD=1.46$, $Md=7.92$, and $M = 7.02$, $SD = 1.45$, $Md = 7.12$, respectively), and cluster 2 and cluster 4 ($M=6.98$, $SD=1.51$, $Md=6.95$ and $M = 6.74$, $SD = 1.93$, $Md=6.56$ respectively).

Table 4.41

Descriptive Statistics for Democracy

Cluster	N	Mean	Std. Deviation	Median	Minimum	Maximum
1	22	7.02	1.45	7.12	3.60	9.37
2	29	6.98	1.51	6.95	3.04	9.81
3	3	8.23	.64	7.99	7.74	8.96
4	9	6.74	1.93	6.56	3.31	8.96
5	7	7.56	1.46	7.92	4.84	9.24
Total	70	7.07	1.52	7.09	3.04	9.81

Based on Table 4.2, the level of democracy was illustrated in Figure 4.49. According to Figure 4.49, cluster 1 had $n=1$ authoritarian, $n=3$ hybrid regimes, $n=12$ flawed democracies and $n=6$ full democracies. Cluster 2 had $n=1$ authoritarian, $n=4$ hybrid regimes, $n=16$ flawed democracies and $n=8$ full democracies. Cluster 3 had $n=2$ flawed democracies and $n=1$ full democracies. Cluster 4 had $n=1$ authoritarian, $n=1$ hybrid regimes, $n=4$ flawed democracies and $n=3$ full democracies. Cluster 5, had $n=1$ hybrid regimes, $n=3$ flawed democracies and $n=3$ full democracies.

Figure 4.49

Democracy Level by Clusters
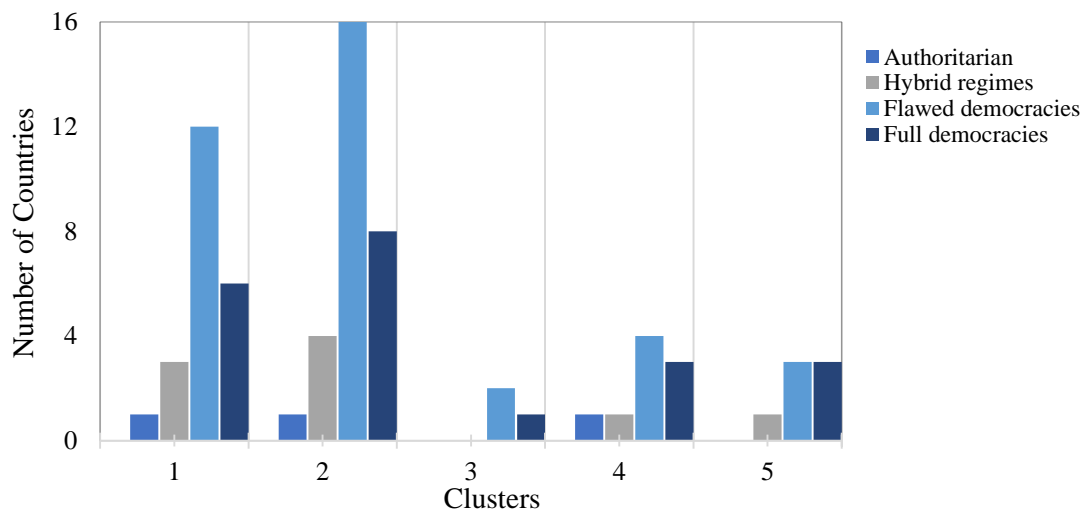
Since the ANOVA test revealed no differences between groups and all clusters had equivalent scores in the descriptive analysis, this study considered all clusters to have various levels of democracy.

Next, the second attribute under the political dimension was the party system. As shown by Figure 4.50, there was no difference across clusters.

Figure 4.50
Types of Party System by Cluster
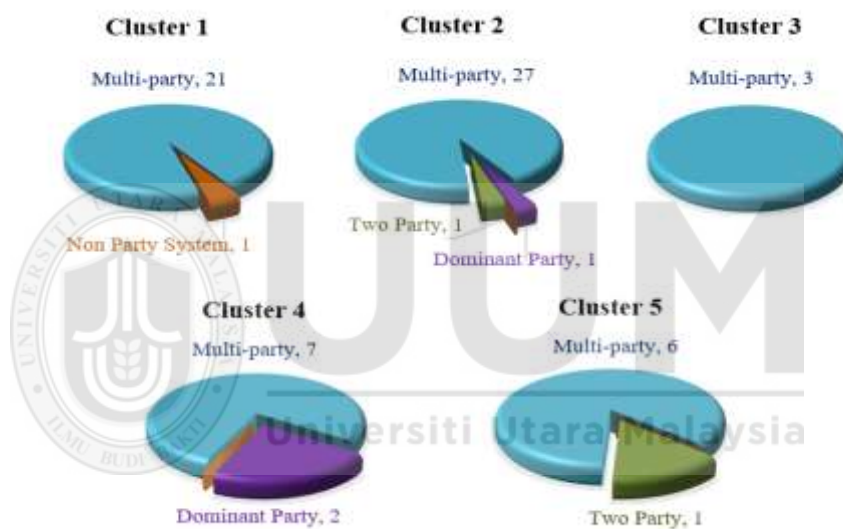
Cluster 1 was comprised of $n=21$ multi-party systems and $n=1$ non-party systems. Similar to cluster 2, the majority of $n=27$ adopted a multi-party system, whereas only $n=1$ implemented a two-party and a dominant party, respectively. Each country in cluster 3 also implemented multi-party $n=3$. In accordance with cluster unitary, majority federation countries in cluster 4 and cluster 5 also adopted multi-party $n=7$ and $n=6$, respectively. The majority of countries had adopted a multi-party system, and thus there were no significant differences between clusters in the party system, as depicted in Figure 4.50.

4.5.4   Legislature

This dimension underlying federalism institutional law theory associated with the chamber type. Kenton (2021), Baldi (1999) and Kreppel (2014) explain that small unitary country with a long democratic history employs the one chamber or unicameral system, while a bicameral or two chamber system is more commonly practised in larger countries that practise federation with the system's two-tiered power structure, in which subdivisions are designed to correspond to other significant societal units. cluster 4 and cluster 5 adopting bicameral legislatures. Several unitary countries, most notably cluster 3, have combined significant degrees of autonomy and implemented bicameral legislatures (see Figure 4.51).

Figure 4.51
Number of Chambers by Cluster
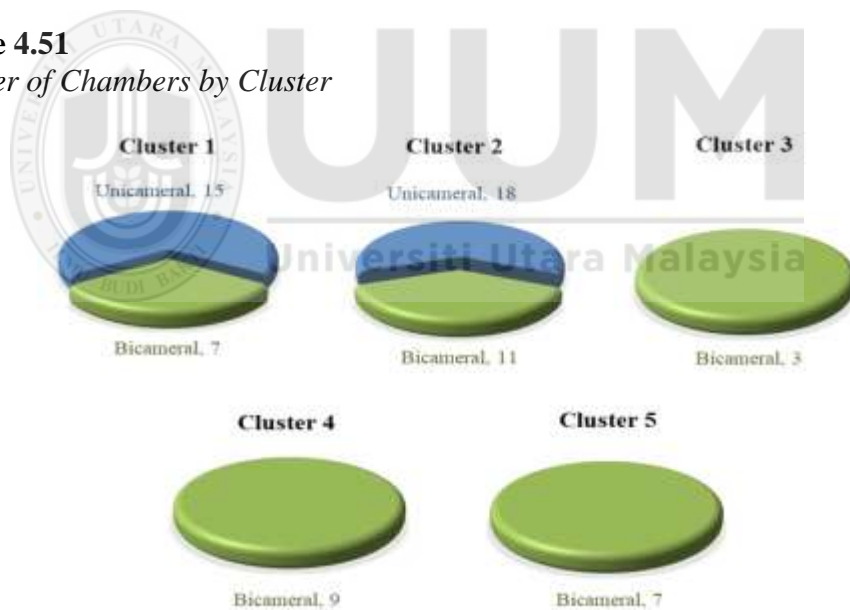
Cluster 1 and cluster 2 were primarily composed of *n*=15 and *n*=18 unicameral, respectively. In contrast, cluster 3 *n*=3, cluster 4 *n*=9, and cluster 5 *n*=9 all adopted bicameral or two chambers.

4.5.5 Regional Authority

As discussed in subtopic 4.2.1.5, the dimension of regional authority contains two vital attributes, namely self-rule and shared rules. Each of these two attributes contains five important concepts. This section begins with an analysis of five concepts which were crucial in giving meaning to self-rule attributes. Then, an analysis of the self-rule attribute was conducted to conclude and label the characteristics in each cluster. The analysis then continued with five concepts of shared rules before the concept of attribute of shared rules was made to identify characteristics and label them accordingly.

4.5.5.1 Self-Rule

This section begins with analysing five concepts of self-rule, i.e., institutional depth, policy scope, fiscal autonomy, borrowing autonomy, and representation. Each of these five concepts was examined one by one using ANOVA (parametric) or Kruskal-Wallis's test (non-parametric) depending on the normality result presented in Table 3.4. Next, Table 4.46 was used to describe descriptive statistics results, while Figure 4.52 was shown to determine the position across clusters.

Institutional depth, first self-rule concept had normal data from the Shapiro-Wilk test (see Table 3.4), therefore ANOVA was needed for the analysis. Table 4.42 reveals a significant difference in institutional depth across the five groupings, $F(4, 65) = 22.471, p < .05, \eta^2_p = .580$.

Table 4.42
ANOVA Test of Institutional Depth

	Sum of Squares	df	Mean Square	F	Sig.	η^2_p
Between Groups	42.333	4	10.583	22.471	.000	.580
Within Groups	30.614	65	.471			
Total	72.946	69				

As indicated in Table 4.43, cluster 3 was statistically significantly different from all other clusters as compared to cluster 1 $p=.303$, cluster 2 $p=.709$, cluster 4 $p=.995$, and cluster 5 $p=.832$.

Table 4.43
Post Hoc Tests over Institutional Depth

Clusters		Mean Difference (I-J)	Std. Error	Sig.
1	2	-.91286	.19832	.000
	3	-1.79764	.66822	.303
	4	-1.57142	.18982	.000
	5	-2.50524	.26822	.000
2	1	.91286	.19832	.000
	3	-.88478	.66702	.709
	4	-.65856	.18555	.011
	5	-1.59238	.26522	.001
3	1	1.79764	.66822	.303
	2	.88478	.66702	.709
	4	.22622	.66454	.995
	5	-.70759	.69103	.832
4	1	1.57142	.18982	.000
	2	.65856	.18555	.011
	3	-.22622	.66454	.995
	5	-.93381	.25892	.033
5	1	2.50524	.26822	.000
	2	1.59238	.26522	.001
	3	.70759	.69103	.832
	4	.93381	.25892	.033

Table 4.46 show the descriptive statistics result for institutional depth, which was cluster 1 $M=1.31$ and $SD=.67$, cluster 2 $M=2.23$, $SD=.74$, cluster 3 $M=3.11$, $SD=1.13$, cluster 4 $M=2.88$, $SD=.37$ and cluster 5 $M=3.82$, $SD=.60$.

Figure 4.52 depicts cluster 5 demonstrates the greatest institutional depth $Md = 3.82$, while cluster 3 clearly shows the second greatest institutional depth $Md = 3.14$, followed by cluster 4 $Md=2.95$, cluster 2 $Md=2.15$, and cluster 1, the least institutional depth $Md=1.34$.

Policy Scope, second concept of self-rule. The Kruskal-Wallis's test was necessary due to the non-normal distribution of the data (see Table 3.4). A Kruskal-Wallis's analysis found a statistically significant difference in policy scope across the five clusters, $\chi^2(4, N=70) = 47.433$, $p < .001$. Next, Table 4.46 show the descriptive statistics result for policy scope, which was cluster 1 $M=.58$ and $SD=.42$, cluster 2 $M=1.49$, $SD=.68$, cluster 3 $M=2.42$, $SD=1.07$, cluster 4 $M=2.62$, $SD =.81$ and cluster 5 $M=3.36$, $SD=.59$. Figure 4.52 shows the regional policy scope differed statistically significantly across clusters. Cluster 5, likewise, has the largest degree of policy scope $Md=3.42$, followed by cluster 3 $Md=2.53$, cluster 4 $Md=2.34$, cluster 2 $Md=1.42$, and cluster 1 $Md=.61$.

Fiscal autonomy was a third concept of self-rule. A Kruskal-Wallis's analysis reveals a statistically significant difference in fiscal autonomy across the five clusters, $\chi^2(4, N=70) = 34.836$, $p < .001$. Next, the descriptive statistics result for fiscal autonomy was presented in Table 4.46, which cluster 1 had $M=.44$ and $SD=.38$, cluster 2 $M=.92$, $SD=.85$, cluster 3 $M=1.67$, $SD=.92$, cluster 4 $M=2.25$, $SD =.83$ and cluster 5 $M=3.44$, $SD=1.15$. Figure 4.52 illustrates cluster 5 had the most fiscal autonomy $Md=3.46$, followed by cluster 3 $Md=2.03$, cluster 4 $Md=2.00$, cluster 2 $Md=.71$, and cluster 1 $Md = .47$.

Borrowing autonomy, fourth concept of self-rule. A Kruskal-Wallis's test rejected the null hypothesis, indicating that there was a statistically significant difference in the distribution of borrow autonomy among the five clusters, $\chi^2(4, N=70) = 42.622, p < .001$. Next, Table 4.46 show the descriptive statistics result for borrowing autonomy, which was cluster 1 $M=.36$ and $SD=.33$, cluster 2 $M=1.07$, $SD=.57$, cluster 3 $M=1.94$, $SD=.86$, cluster 4 $M=1.88$, $SD=.66$ and cluster 5 $M=2.46$, $SD=.85$. Figure 4.52 shows the regional authority in Cluster 5 had the most borrowing autonomy ($Md = 2.25$), followed by cluster 3 ($Md = 2.08$), cluster 4 ($Md = 1.78$), cluster 2 ($Md = 1.05$), and cluster 1 ($Md = .34$).

Representation, fifth self-rule concept had normal data, therefore ANOVA was employed for the analysis. The ANOVA test in Table 4.44 shows that there was a significant difference in regional representation across the five groupings, $F(4, 65) = 28.714, p < .05, \eta^2_p = .639$.

Table 4.44
ANOVA Test of Representation

	Sum of Squares	df	Mean Square	F	Sig.	η^2_p
Between Groups	106.529	4	26.632	28.714	.000	.639
Within Groups	60.288	65	.928			
Total	166.817	69				

As ANOVA result was significant, post hoc test applied for next procedure. Based on Table 4.45, Cluster 3 was statistically significantly different from all other clusters as cluster 1 ($p =.267$), cluster 2 ($p =.773$), cluster 4 (p =.857), and cluster 5 ($p =.898$). Similar to cluster 4 and cluster 2 was great different from each other as $p = 919$.

Table 4.45

Post Hoc Tests over Representation

Games-Howell

Clusters		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-1.84391	.26667	.000	-2.5997	-1.0881
	3	-3.06693	1.04378	.267	-10.5314	4.3976
	4	-2.06629	.26822	.000	-2.8595	-1.2731
	5	-3.99581	.42253	.000	-5.4105	-2.5811
2	1	1.84391	.26667	.000	1.0881	2.5997
	3	-1.22302	1.04386	.773	-8.6854	6.2394
	4	-.22238	.26854	.919	-1.0121	.5673
	5	-2.15190	.42273	.004	-3.5654	-.7384
3	1	3.06693	1.04378	.267	-4.3976	10.5314
	2	1.22302	1.04386	.773	-6.2394	8.6854
	4	1.00064	1.04426	.857	-6.4543	8.4555
	5	-.92888	1.09410	.898	-7.4975	5.6397
4	1	2.06629	.26822	.000	1.2731	2.8595
	2	.22238	.26854	.919	-.5673	1.0121
	3	-1.00064	1.04426	.857	-8.4555	6.4543
	5	-1.92953	.42371	.009	-3.3539	-.5051
5	1	3.99581	.42253	.000	2.5811	5.4105
	2	2.15190	.42273	.004	.7384	3.5654
	3	.92888	1.09410	.898	-5.6397	7.4975
	4	1.92953	.42371	.009	.5051	3.3539

Next, Table 4.46 show descriptive statistic of representation. Cluster 5 had the highest score of representation with M=5.24, SD=.1.00, followed by cluster 3 (M=4.31, SD=1.78), cluster 4 (M=3.31, SD=.57), cluster 2 (M=3.09, SD=1.02), and cluster 1 (M=1.25, SD=.88).

According to Figure 4.52, cluster 5 also illustrates as the best regional representation (Md=5.16), followed by cluster 3 (Md=5.15), cluster 4 (Md=3.21), cluster 2 (Md=2.99), and cluster 1 (Md=1.42).

Table 4.46

Descriptive Statistics for Five Concepts of Self-Rule

	Cluster	N	Mean	Std. Deviation	Minimum	Maximum
Institutional Depth	1	22	1.3124	0.67102	0.09	2.49
	2	29	2.2252	0.73967	1.00	3.99
	3	3	3.1100	1.13055	1.97	4.23
	4	9	2.8838	0.37426	2.18	3.45
	5	7	3.8176	0.60026	3.21	5.01
	Total	70	2.2202	1.02820	0.09	5.01
Policy Scope	1	22	0.5758	0.42098	0.00	1.43
	2	29	1.4914	0.68211	0.00	3.36
	3	3	2.4240	1.06906	1.30	3.43
	4	9	2.6222	0.80530	1.78	4.00
	5	7	3.3552	0.58730	2.76	4.30
	Total	70	1.5753	1.09463	0.00	4.30
Fiscal Autonomy	1	22	0.4359	0.37987	0.00	1.25
	2	29	0.9221	0.84514	0.00	3.00
	3	3	1.6663	0.92063	0.62	2.35
	4	9	2.2519	0.83405	1.18	4.00
	5	7	3.4400	1.15194	1.56	5.14
	Total	70	1.2240	1.19801	0.00	5.14
Borrow Autonomy	1	22	0.3620	0.32767	0.00	1.11
	2	29	1.0698	0.57008	0.00	2.33
	3	3	1.9353	0.86313	1.01	2.72
	4	9	1.8813	0.66353	1.00	3.00
	5	7	2.4562	0.84923	1.36	3.78
	Total	70	1.1274	0.87735	0.00	3.78
Representation	1	22	1.2464	0.88340	0.00	2.58
	2	29	3.0903	1.01667	1.31	5.02
	3	3	4.3133	1.77820	2.27	5.52
	4	9	3.3127	0.57292	2.39	4.00
	5	7	5.2422	1.00070	4.30	7.15
	Total	70	2.8070	1.55487	0.00	7.15

Figure 4.52
Boxplot of Five Concepts of Self-Rule by Cluster
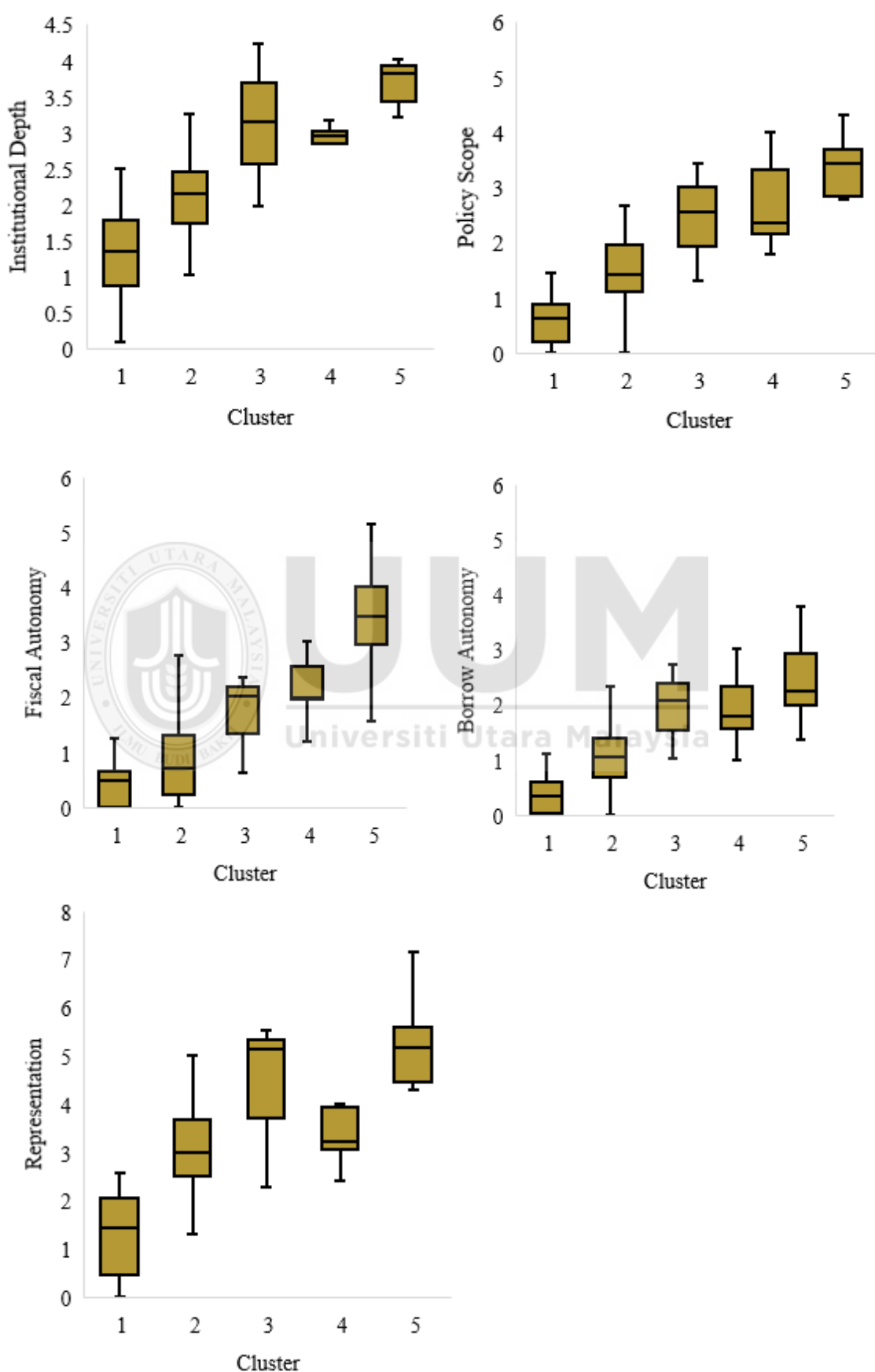
As shown by Figure 4.52, the cluster position for all five self-rule concepts was progressive. In other words, Cluster 1 had the lowest score compared to Cluster 5. Next, Figure 4.53 presents each concept's z-score mean position in further detail.

Figure 4.53
Z-score Mean of Five Concepts of Self-Rule, 1970-2018

Cluster 1

In this cluster, regional governments in $n=22$ countries had all negative z-score mean over institutional depth, policy scope, both autonomy over fiscal and borrowing and representation.

Cluster 2

In this cluster, the regional level in $n=29$ countries were given little autonomy over representation and institutional depth. Unfortunately, policy scope and both autonomy over fiscal and borrowing, were all deficient as the z-score was negative.

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Cluster 3

Regional authorities in *n*=3 countries are given substantial balance in the areas of self-rule, especially representation, borrowing autonomy, institutional depth, and policy scope, with the exception of fiscal autonomy, which was fairly limited.

Cluster 4

The autonomy self-rule score of this cluster is comparable to cluster 3, with regional authorities in *n*=9 countries given an advantage in terms of policy scope, fiscal and borrowing autonomy as well as institutional depth, but relatively in the domain of representation.

Cluster 5

In this cluster, the regional level in *n*=7 countries were granted extraordinary autonomy over all domains under self-rule.

The **self-rule** attribute was wrapped up in this part. Given that the distribution data for self-rule demonstrated normality (see Table 3.4), thus ANOVA was used for this. According to Table 4.48, the ANOVA test reveals that the five categories had a statistically significant difference in self-rule, $F(4, 65) = 40.809$, $p < .05$, $\eta^2_p = .715$.

Table 4.47
ANOVA Test of Self-Rule

	Sum of Squares	df	Mean Square	F	Sig.	η^2_p
Between Groups	1372.730	4	343.182	40.809	.000	.715
Within Groups	546.613	65	8.409			
Total	1919.343	69				

As the ANOVA test was significant, the procedure was continued with post hoc testing. Each cluster was compared to the other four clusters. If a cluster differs by less than .05 in the Sig. column those differences are statistically significant. Table 4.49 shows post hoc results which cluster 3 was statistically significant different with all clusters where cluster 1 ($p = .275$), cluster 2 ($p = .673$), cluster 4 ($p = .673$), and cluster 5 ($p = .673$).

Table 4.48
Post Hoc Tests over Self-Rule

Games-Howell

Clusters		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1	2	-4.86247	.75127	.000	-6.9901	-2.7348
	3	-9.51618	3.26783	.275	-33.4488	14.4164
	4	-9.02248	1.00935	.000	-12.2004	-5.8445
	5	-14.37625	1.19792	.000	-18.4605	-10.2920
2	1	4.86247	.75127	.000	2.7348	6.9901
	3	-4.65371	3.28294	.673	-28.2230	18.9156
	4	-4.16001	1.05722	.010	-7.4141	-.9059
	5	-9.51378	1.23853	.000	-13.6219	-5.4057
3	1	9.51618	3.26783	.275	-14.4164	33.4488
	2	4.65371	3.28294	.673	-18.9156	28.2230
	4	.49370	3.35142	1.000	-21.6534	22.6408
	5	-4.86007	3.41296	.664	-25.9900	16.2698
4	1	9.02248	1.00935	.000	5.8445	12.2004
	2	4.16001	1.05722	.010	.9059	7.4141
	3	-.49370	3.35142	1.000	-22.6408	21.6534
	5	-5.35377	1.41007	.017	-9.8238	-.8837
5	1	14.37625	1.19792	.000	10.2920	18.4605
	2	9.51378	1.23853	.000	5.4057	13.6219
	3	4.86007	3.41296	.664	-16.2698	25.9900
	4	5.35377	1.41007	.017	.8837	9.8238

Next Figure 4.54 reveals that regional authorities were granted the most autonomy was in cluster 5 (Md=18.20). Cluster 3 (Md=15.25) of the unitary system has far more self-rule than cluster 4 (Md=12.71) of the federated system, whose authorities are known to be constitutionally guaranteed. Clusters 3 and 4 were formerly part of the same

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cluster as a result of the clustering test, but were separated due to the distinct government systems. Cluster 2 (*Md*=9.10) was a decentralised unitary system; hence its autonomy score was definitely higher than Cluster 1 (*Md*=4.39).

Figure 4.54
Self-Rule by Clusters
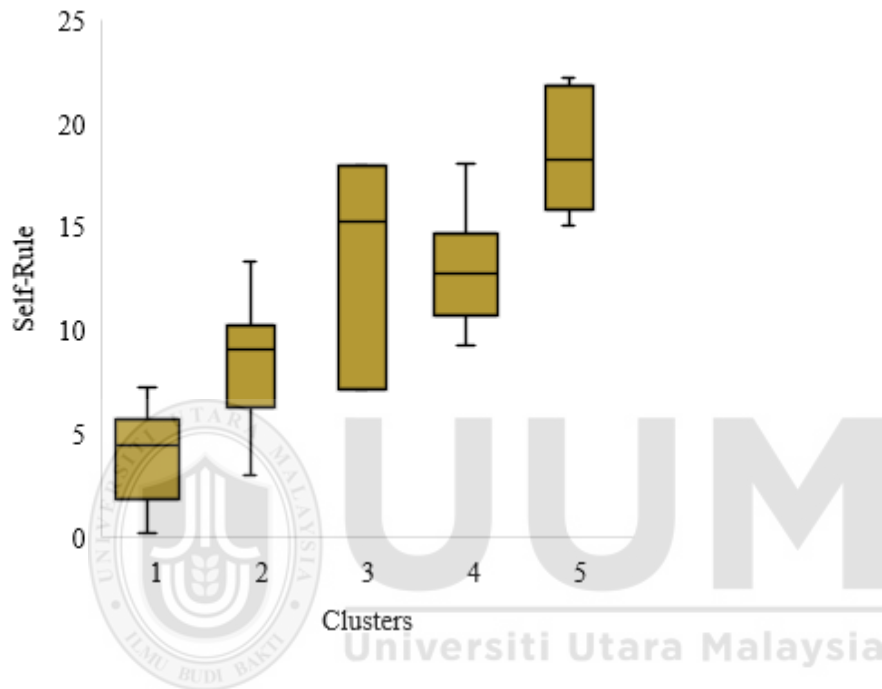
Finally, Table 4.49 shows the descriptive output of self-rule. Cluster 5 had the highest scored at *M*=18.3, *SD*=2.9, followed by cluster 3 (*M*=13.5, *SD*=5.6), cluster 4 (*M*=13.0, *SD*=2.7), cluster 2 (*M*=8.8, *SD*=3.1), and cluster 1 at *M*=3.9, *SD*=2.3.

Table 4.49
Descriptive Statistics for Self-Rule

Cluster	N	Mean	Std. Deviation	Minimum	Maximum
1	22	3.9	2.3	0.2	7.2
2	29	8.8	3.1	3.0	17.1
3	3	13.5	5.6	7.2	17.9
4	9	13.0	2.7	9.3	18.0
5	7	18.3	2.9	15.0	22.2
Total	70	9.0	5.3	0.2	22.2

As Hooghe et al. (2016) estimated the self-rule aggregate score to be between 0 and 18, the following scale was determined:

< 4.4   =   very weak
4.5 - 8.9   =   weak
9.0 - 13.4   =   strong
> 13.5   =   very strong

From the range, this study considered cluster 1 *M*=3.9 was very weak, cluster 2 *M*=8.8 was weak, cluster 3 *M*=13.5 was very strong, cluster 4 *M*=13 was strong, and cluster 5 *M*=18.3 was very strong.

4.5.5.2   Shared Rule

The shared rule was assessed based on five concepts, including law-making, executive control, fiscal control, borrowing control, and constitutional reform. Based on the normality results shown in Table 3.4, each of these five concepts was analysed using either ANOVA or Kruskal-Wallis. Next, the descriptive statistics were discussed based on Table 4.50, and Figure 4.55 was then used to illustrate position across the cluster.

Law-making, the first attribute of shared rules. A Kruskal-Wallis's test revealed a statistically significant difference in law-making across the five clusters, $\chi^2(4, N=70) = 30.362, p < .001$. Table 4.50 show the descriptive statistics result, which was cluster 1 *M*=.17 and *SD*=.30, cluster 2 *M*=.21, *SD*=.36, cluster 3 *M*=.40, *SD*=.46, cluster 4 *M*=1.12, *SD* =.36 and cluster 5 *M*=1.17, *SD*=.50. Next, Figure 4.55 shows that cluster 5 representative co-determines national legislation, which *Md*=1.223, followed by cluster 4 (*Md* = 1.146), cluster 3 (*Md* = .296), cluster 2 (*Md* = .003), and cluster 1 (*Md* =.000).

Executive control, the second shared rules attribute. The null hypothesis was rejected by a Kruskal-Wallis's test, which indicated that there was a statistically significant difference in the distribution of executive control among the five clusters, $\chi^2(4, N=70) = 31.890$, $p < .001$. Next, Table 4.50 show the descriptive statistics result, which was cluster 1 $M=.08$ and $SD=.13$, cluster 2 $M=.09$, $SD=.18$, cluster 3 $M=.27$, $SD=.31$, cluster 4 $M=.84$, $SD=.54$ and cluster 5 $M=1.11$, $SD=.69$. Figure 4.55 illustrates cluster 5 possessed the most executive control ($Md = 1.194$), followed by cluster 4 ($Md = .600$), cluster 3 ($Md = .192$), cluster 2 ($Md = .000$), and cluster 1 ($Md = .000$).

Fiscal control was a third attribute of shared rule. A Kruskal-Wallis's analysis reveals a statistically significant difference in fiscal control across the five clusters, $\chi^2(4, N=70) = 20.565$, $p < .001$. Table 4.50 demonstrates the descriptive statistics result for fiscal control, which was cluster 1 $M=.09$ and $SD=.20$, cluster 2 $M=.14$, $SD=.30$, cluster 3 $M=.43$, $SD=.67$, cluster 4 $M=.77$, $SD=.62$ and cluster 5 $M=.85$, $SD=.58$. As seen in Figure 4.55, cluster 5 had the most fiscal control ($Md = 1.1400$), followed by cluster 4 ($Md = .667$), cluster 3 ($Md = .102$), cluster 2 ($Md = .000$), and cluster 1 ($Md = .000$).

Borrowing control, fourth shared rule attribute. The null hypothesis was rejected by a Kruskal-Wallis's test, which indicated that there was a statistically significant difference in the distribution of borrow control among the five clusters, $\chi^2(4, N=70) = 18.351$, $p < .001$. Table 4.50 presents the descriptive statistics result for borrowing control, which was cluster 1 $M=.03$ and $SD=.09$, cluster 2 $M=.01$, $SD=.05$, cluster 3 $M=.0$, $SD=.00$, cluster 4 $M=.44$, $SD=.50$ and cluster 5 $M=.50$, $SD=.55$. Figure 4.55 portrays cluster 5 had the most control on borrowing ($Md=.400$), followed by cluster 4 ($Md=.188$), cluster 3 ($Md=.000$), cluster 2 ($Md=.000$), and cluster 1 ($Md=.000$).

Constitutional reform, the fifth attribute of shared rule. The Kruskal-Wallis's test discovered a statistically significant difference in constitutional reform across the five clusters, $\chi^2(4, N=70) = 30.362$, $p < .001$. Next, Table 4.50 show the descriptive statistics result for constitutional reform, which was cluster 1 $M=.28$ and $SD=.45$, cluster 2 $M=.40$, $SD=.77$, cluster 3 $M=.1.25$, $SD=1.02$, cluster 4 $M=2.83$, $SD =.81$ and cluster 5 $M=3.33$, $SD=1.56$. As shown in Figure 4.55, the regional governments had different control over constitutional reform. Cluster 5 had the most influence over national constitutional reform ($Md = 2.786$), followed by cluster 4 ($Md = 2.600$), but cluster 3 ($Md = .791$), cluster 2 ($Md = .004$), and cluster 1 ($Md =.002$) had the least influence.

Table 4.50
Descriptive Statistics for Five Concepts of Shared Rules

	Cluster	N	Mean	Std. Deviation	Minimum	Maximum
Law Making	1	22	0.17	0.30	0.00	1.30
	2	29	0.21	0.36	0.00	1.38
	3	3	0.40	0.46	0.00	0.90
	4	9	1.12	0.36	0.56	1.68
	5	7	1.17	0.50	0.07	1.50
	Total	70	0.42	0.53	0.00	1.68
Executive Control	1	22	0.08	0.13	0.00	0.40
	2	29	0.09	0.18	0.00	0.67
	3	3	0.27	0.31	0.01	0.61
	4	9	0.84	0.54	0.00	1.60
	5	7	1.11	0.69	0.20	2.00
	Total	70	0.29	0.48	0.00	2.00
Fiscal Control	1	22	0.09	0.20	0.00	0.80
	2	29	0.14	0.30	0.00	1.33
	3	3	0.43	0.67	0.00	1.20
	4	9	0.77	0.62	0.00	1.56
	5	7	0.85	0.58	0.00	1.40
	Total	70	0.29	0.47	0.00	1.56

	1	22	0.03	0.09	0.00	0.39
	2	29	0.01	0.05	0.00	0.20
Borrow	3	3	0.00	0.00	0.00	0.00
Control	4	9	0.44	0.50	0.00	1.20
	5	7	0.50	0.55	0.00	1.33
	Total	70	0.12	0.31	0.00	1.33
	1	22	0.28	0.45	0.00	1.60
	2	29	0.40	0.77	0.00	3.03
Constitutional	3	3	1.25	1.02	0.54	2.42
Reform	4	9	2.83	0.81	1.75	4.00
	5	7	3.33	1.56	1.60	6.32
	Total	70	1.01	1.39	0.00	6.32

Figure 4.55
Boxplot of Five Concepts of Shared Rule by Cluster
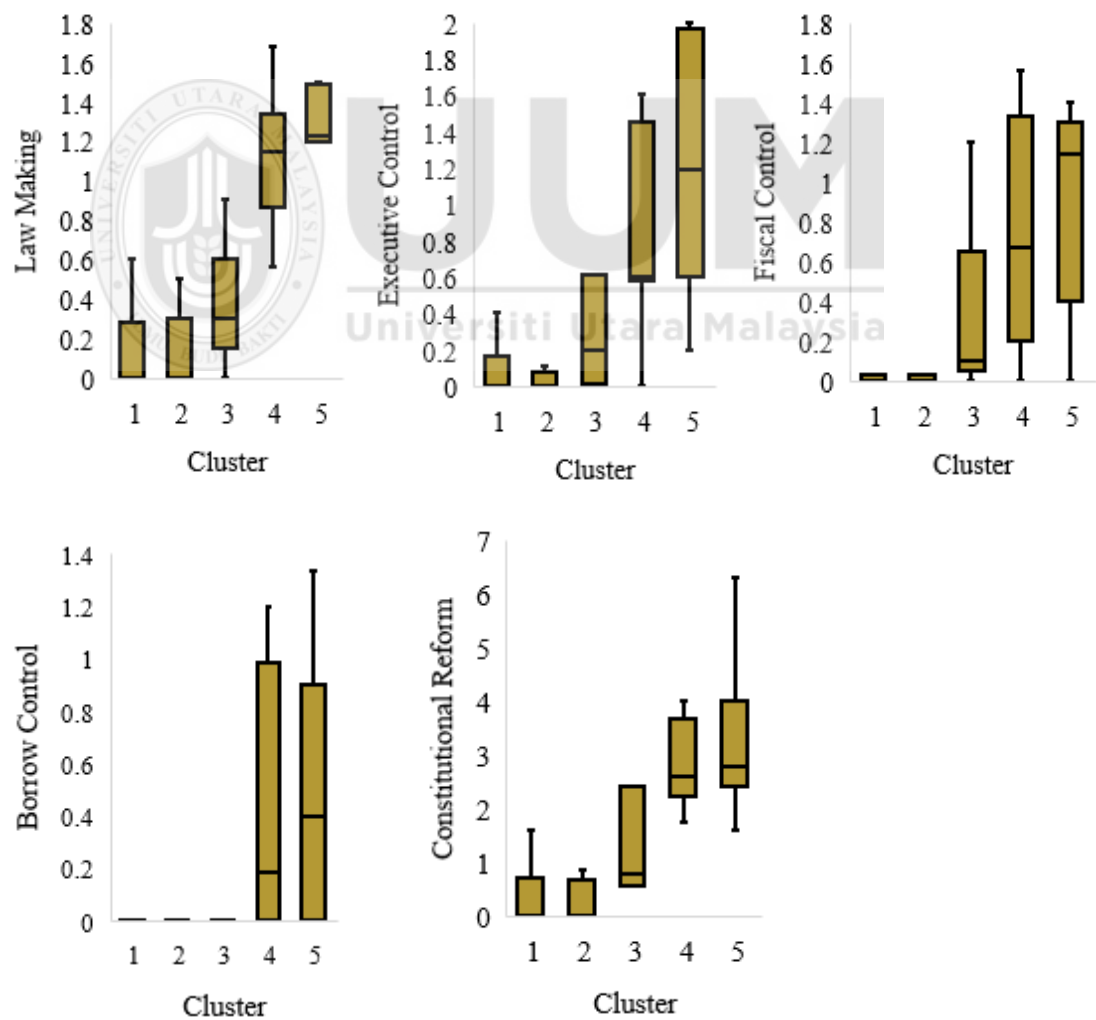
As shown by Figure 4.55, the cluster position for all five shared rules concepts was progressive. In other words, Cluster 1 had the lowest score compared to other clusters. Next, Figure 4.56 presents z-score mean position in further detail for each concept of shared rules.

Figure 4.56
Z-score Mean of Five Concepts of Shared Rules, 1970-2018
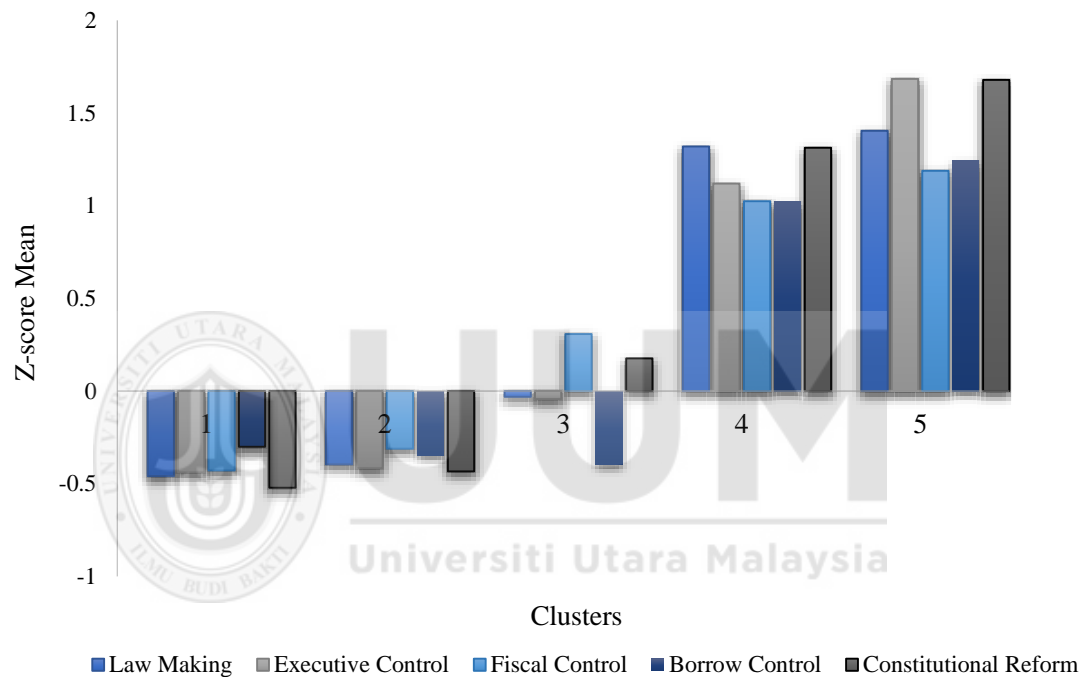
Cluster 1

In this cluster, n=22 countries had all negative z-score means over law making, executive control, both fiscal and borrowing control and constitutional reform.

Cluster 2

This n=29 countries had all negative z-score means for law making, executive control, both fiscal and borrowing control and constitutional reform, identical to cluster 1.

Cluster 3

Regional authorities in $n=3$ countries had positive z-score means over fiscal control and constitutional reform. While law making, executive control, and borrowing control were all deficient as the z-score was negative.

Cluster 4

The score of all five concepts of shared rules was positive and comparable to cluster 5, with regional authorities in $n=9$ countries being granted control over all domains under share rules.

Cluster 5

In this cluster, the regional level in $n=7$ countries were granted all control under shared rules as the z-score means shows positive.

Shared rules, the second attribute of regional authority, were summarised in this section. Shared rules were necessarily applied the Kruskal-Wallis's test due to the non-normal distribution of the data (see Table 3.4). From the test, the output shows $\chi^2(4, N=70) = 36.882, p < .001$ which was statistically significant difference in shared rule across the five clusters. As illustrated in Figure 4.57, Cluster 5 had the largest degree of shared rules as ($Md = 6.80$), followed by Cluster 4 ($Md = 6.67$). While score Cluster 3 ($Md = 1.3$), Cluster 1 ($Md = .13$), and Cluster 2 ($Md = .10$) were much smaller.

Figure 4.57
Box Plot of Shared Rules by Clusters
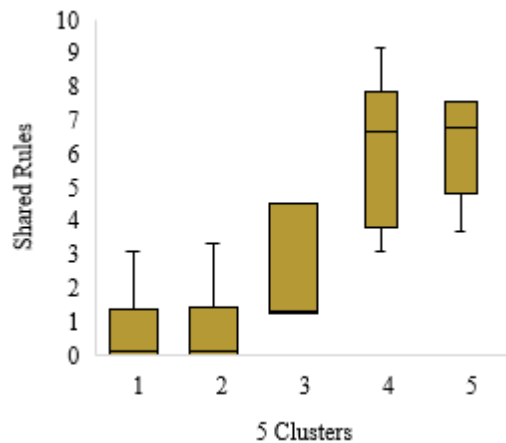
Finally, Table 4.51 shows the descriptive output of shared rules. Cluster 5 had the highest scored at M=7.0, SD=2.7, followed by cluster 4 (M=6.0, SD=2.2), cluster 3 (M=3, SD=1.9), cluster 2 (M=1, SD=1.4), and cluster 1 at M=1, SD=1.0.

Table 4.51
Descriptive Statistics for Shared Rules

Cluster	N	Mean	Std. Deviation	Minimum	Maximum
1	22	1	1.0	0.0	3.1
2	29	1	1.4	0.0	5.7
3	3	3	1.9	1.3	4.5
4	9	6	2.2	3.1	9.1
5	7	7	2.7	3.7	12.3
Total	70	2.1	2.8	0.0	12.3

As Hooghe et al. (2016) estimated the shared rules aggregate score to be between 0 and 12, the following scale was determined:

< 2	=	very weak
3 - 5	=	weak
6 - 8	=	strong
> 9	=	very strong

From the range, this study considered cluster 1 M=1 was very weak, cluster 2 M=1 was very weak, cluster 3 M=3 was weak, cluster 4 M=6 was strong, and cluster 5 M=7 was strong.

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4.5.6   Fiscal Decentralisation

This section quantifies the fiscal dimension in order to assess the clusters' subnational financial competency. The major data source for this study was the Government Finance Statistics, International Monetary Fund's time span from 1970 to 2018. The study evaluated data on subnational revenue and expenditure, vertical imbalances, and government transfers.

Fiscal considerations are critical when debating the subnational government's authority. When a cross-sectional assessment of regional authority and fiscal indicator conducted, the scenario is shown in Figure 4.58.

Figure 4.58
Subnational Fiscal Indicators and Regional Authority, 1970-2018
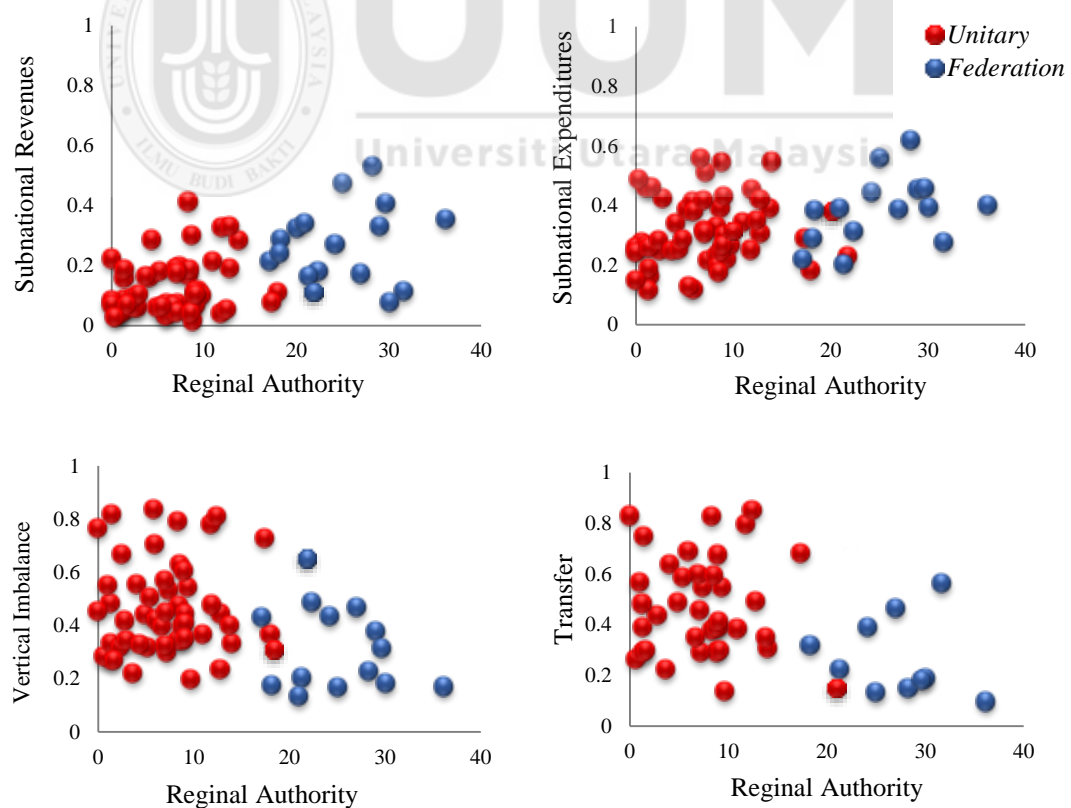
Figure 4.58 illustrates the level of subnational revenue power and expenditure in both systems (unitary and federation) generally look the same, given that fiscal decentralisation occurs among unitary countries. However, when the dataset is divided by cluster, significant differences emerge, as shown in Figure 4.59.

Figure 4.59
Subnational Revenues, Subnational Expenditure and Regional Authority by Cluster
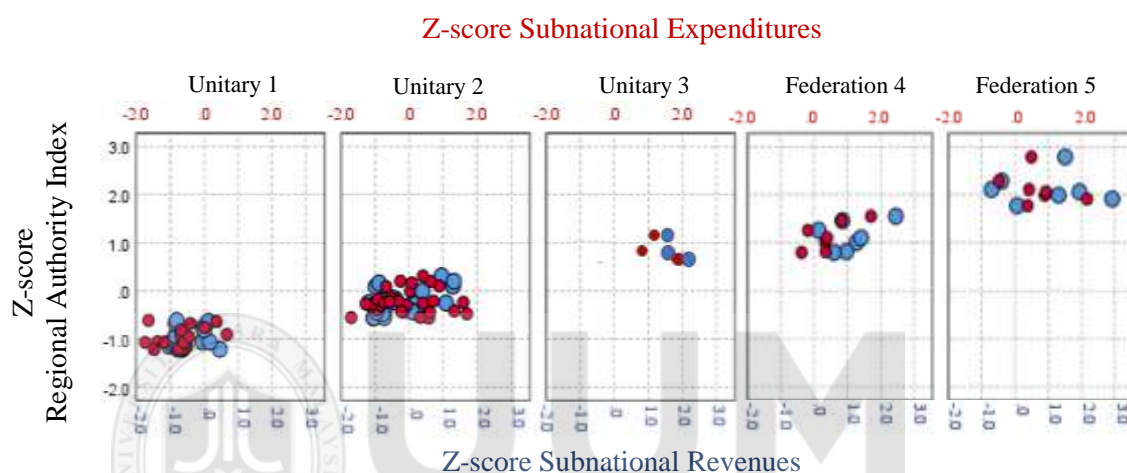
From Figure 4.59:

Cluster 1 = Unitary 1: z-score subnational expenditure dan revenue *z = <1.0*

Cluster 2 = Unitary 2: z-score subnational expenditure dan revenue *z = <2.0*

Cluster 3 = Unitary 3: z-score subnational expenditure dan revenue *z = <2.5*

Cluster 4 = Federation 3: z-score subnational expenditure dan revenue *z = <2.5*

Cluster 5 = Federation 5: z-score subnational expenditure dan revenue *z = <3.0*

In Figure 4.60, it shows the vertical imbalances are greater in Unitary 1 and 2 (Cluster 1 and Cluster 2), indicating a wider budgetary gap between the central and subnational governments in comparison to Federation countries in Cluster 3 and Cluster 4. This high degree of vertical imbalance shows that dependence on transfers from the central government for fiscal sustainability is more widespread in Unitary 1 and 2.

Figure 4.60

Subnational Vertical Imbalance (VIM) and Transfers by Cluster Number of System Government.
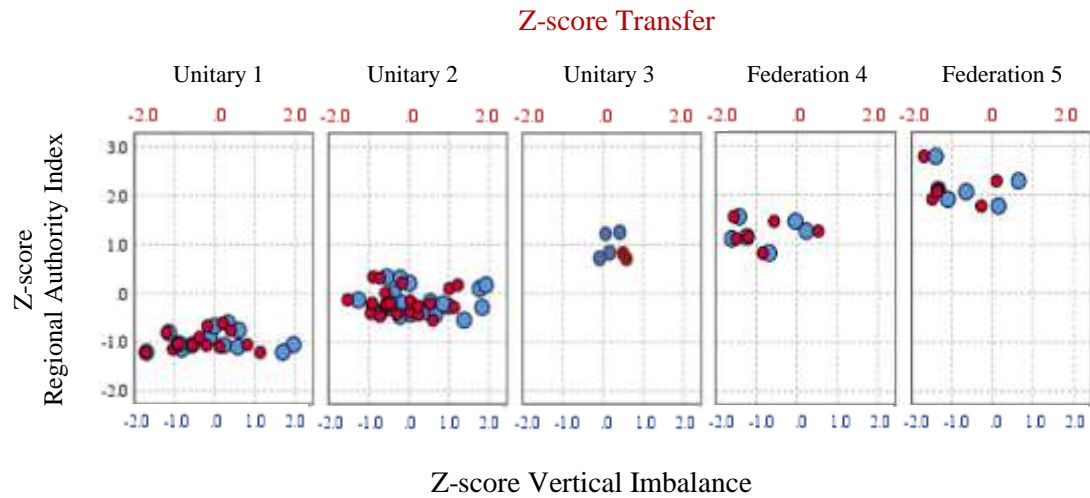
A cross analysis between the four fiscal tools and the regional authority level provides an initial overview of the cluster's position in this dimension. The next subtopic discusses each attribute in more detail to obtain information about the characteristics of each group from this fiscal dimension.

4.5.6.1   Subnational Revenue

Due to the non-normal distribution of the subnational revenue data (see Table 3.4), the Kruskal-Wallis's test was used. Kruskal-Wallis's test result was $\chi^2(4, N=70) = 19.72$, $p < .001$, was statistically significant in subnational revenue across the five clusters. According to Figure 4.61, cluster 5 had the greatest influence on subnational revenue ($Md=3.31$) followed by cluster 4 ($Md=2.73$), cluster 3 ($Md=1.12$), cluster 2 ($Md=1.07$) and cluster 1 had the least influence overs subnational revenue power ($Md=.78$).

Figure 4.61

Kruskal-Wallis Test Summary over Subnational Revenue
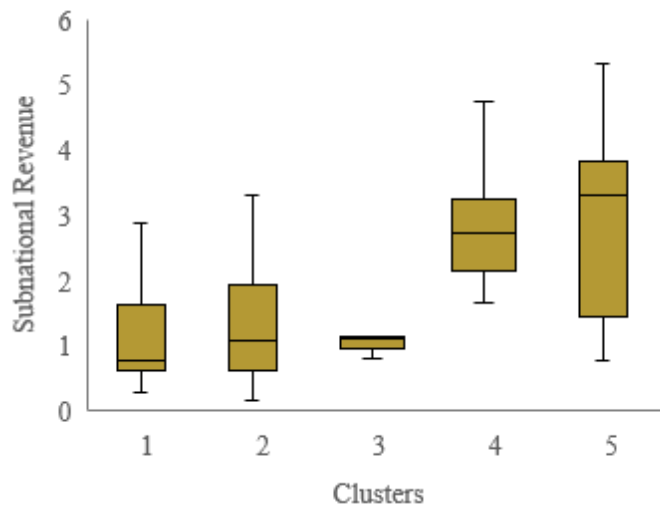
Next, Table 4.52 show the descriptive statistics result, which was cluster 1 *M*=1.07

and *SD*=.69, cluster 2 *M*=1.43, *SD*=1.06, cluster 3 *M*=1.02, *SD*=.19, cluster 4 *M*=2.79,

SD=.95 and cluster 5 *M*=2.85, *SD*=.1.67.

Table 4.52

Descriptive Statistics for Subnational Revenue

Cluster	N	Mean	Std. Deviation	Minimum	Maximum
1	22	1.07	0.69	0.29	2.87
2	29	1.43	1.06	0.16	4.14
3	3	1.02	0.19	0.80	1.13
4	9	2.79	0.95	1.65	4.74
5	7	2.85	1.67	0.78	5.33
Total	70	1.62	1.19	0.16	5.33

The range of decentralisation between the minimum and maximum scores interpreted

that as follow:

< 0.9	=	Very Low
1.00 – 1.99	=	Low
2.00 – 2.99	=	Moderate
3.00 – 3.99	=	High
> 4.00	=	Very High

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This study examined the decentralisation of subnational revenues based on Figure 4.58. The median score was selected instead of the mean as it was a comparable result to the fiscal autonomy result. Cluster 1 had Md =.78 was very low, cluster 2 had Md =1.07 was low, cluster 3 had Md=1.12 was low, cluster 4 had Md=2.73 was moderate and cluster 5 had the greatest Md=3.31 which was high.

4.5.6.2   Subnational Expenditure

ANOVA was utilized in this study since the Shapiro-Wilk test revealed normality in the distribution of subnational expenditure data (Table 3.4). Table 4.53 presents the ANOVA test of subnational expenditure in a similar vein. It reveals that the five categories had statistically no difference as $F(4, 65) = 2.025$, $p > .05$, $\eta^2_p = .111$.

Table 4.53
ANOVA Test of Subnational Expenditure

	Sum of Squares	df	Mean Square	F	Sig.	η^2_p
Between Groups	.126	4	.032	2.025	.101	.111
Within Groups	1.012	65	.016			
Total	1.138	69				

It was determined to be equivalent, as seen in Figure 4.62. Cluster 5 had the greatest, Md =4.04 on subnational spending, followed by Cluster 4 which had Md =3.83, Cluster 2 had Md =3.32, Cluster 1 had Md =2.65, and Cluster 3 had Md =2.32. This implies that the subnational expenditure was the same across five cluster groups.

Figure 4.62
Boxplot of Subnational Expenditure by Clusters
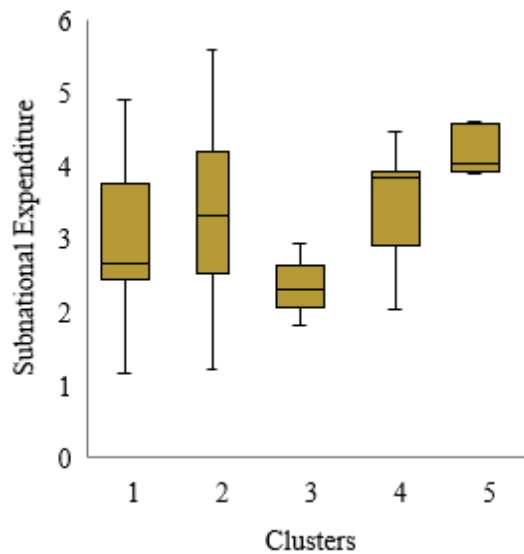
In Table 4.54, the descriptive output for subnational spending indicates that cluster 5 scored the highest, with $M=4.29$, $SD=1.04$. The other clusters, on the other hand, had almost similar scores: cluster 4 ($M=3.55$, $SD=1.12$), cluster 2 ($M=3.48$, $SD=1.30$), cluster 1 ($M=3.00$, $SD=1.33$), and cluster 3 ($M=2.36$, $SD=0.55$.

Table 4.54
Descriptive Statistics for Subnational Expenditure

Cluster	N	Mean	Std. Deviation	Minimum	Maximum
1	22	3.00	1.33	1.16	6.53
2	29	3.48	1.30	1.20	7.12
3	3	2.36	0.55	1.82	2.93
4	9	3.55	1.12	2.04	5.61
5	7	4.29	1.04	2.78	6.20
Total	70	3.37	1.28	1.16	7.12

The range of decentralisation between the minimum and maximum scores interpreted that as follow:

< 0.9	=	Very Low
$1.00 – 1.99$	=	Low
$2.00 – 2.99$	=	Moderate
$3.00 – 3.99$	=	High
> 4.00	=	Very High

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According to Table 4.54, this study considered the decentralisation of subnational expenditure as the range above. Cluster 1 had *M*=3.00 was high, cluster 2 had *M*=3.48 was high, cluster 3 had *M*=2.36 was moderate, cluster 4 had *M*=3.55 was high and cluster 5 had the greatest *M*=4.29 which was very high.

4.5.6.3   Vertical Imbalance

The Kruskal-Wallis's test determined that there was statistically significant difference between the five clusters as $\chi^2(4, N=68) = 2.945$, $p < .05$. According to Figure 4.63, unitary countries had great fiscal imbalance between central and regional, which cluster 1 had *Md*=5.19, cluster 2 had *Md* =3.71, and cluster 3 had *Md*=2.20 While federation countries had lower vertical imbalance, where Cluster 4 had *Md*=1.87 and Cluster 5 had a *Md*=1.75.

Figure 4.63
Kruskal-Wallis Test Summary over Vertical Imbalance
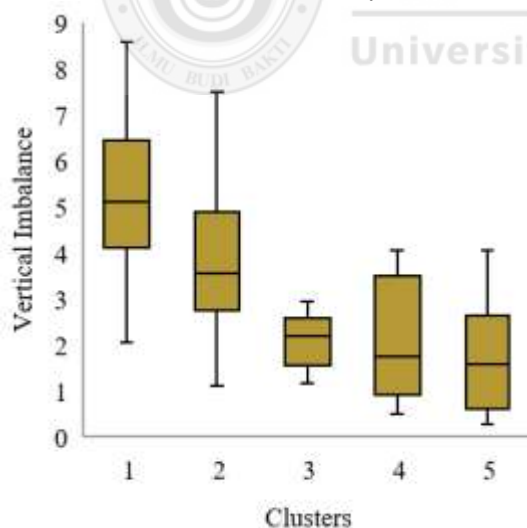
The range of vertical imbalance interpreted that as follow:

< 0.9 =   Very Low
$1.00 - 1.99$ =   Low
$2.00 - 2.99$ =   Moderate
$3.00 - 3.99$ =   High
> 4.00 =   Very High

According to Figure 4.63, this study considered the vertical imbalance in cluster 1 *Md*=5.19 was very high, cluster 2 *Md* =3.71 was high, and cluster 3 *Md*=2.20 was moderate, Cluster 4 *Md*=1.87 was low and Cluster 5 *Md*=1.75 was low.

4.5.6.4   Government Transfer

The Kruskal-Wallis's test with a confidence level of 95% was applied. The Kruskal-Wallis's test found a statistically significant across the five clusters as χ^2(4, *N=68*) = 8.106, *p* < .05.   According to Figure 4.64, cluster 1 had transferred with *Md*=4.62, cluster 2 *Md*=4.37, cluster 3 *Md*=2.71, Cluster 4 *Md*=2.73 and Cluster 4 *Md*=1.85.

Figure 4.64
Kruskal-Wallis Test Summary over Government Transfer
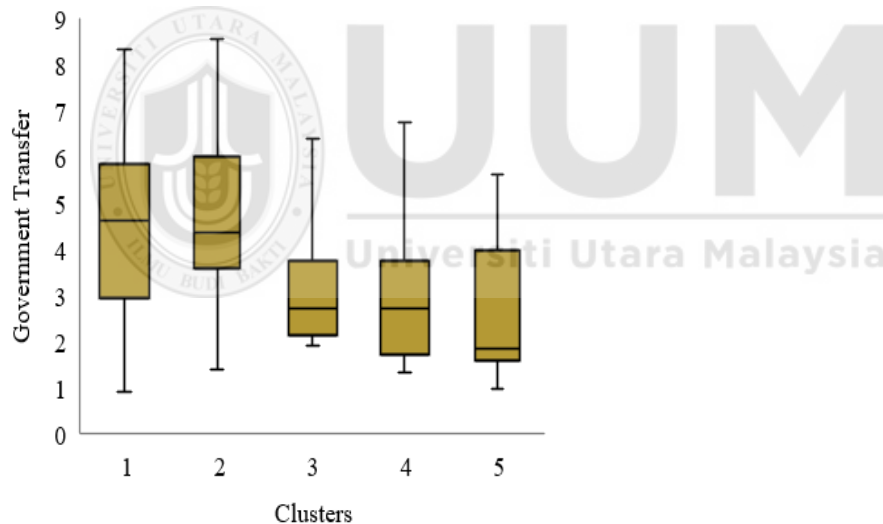
The government transfer range interpreted as follow:

< 0.9	=	Very Low
1.00 – 1.99	=	Low
2.00 – 2.99	=	Moderate
3.00 – 3.99	=	High
> 4.00	=	Very High

According to Figure 4.63, this study considered the government transfer in cluster 1 *Md*=4.62 was very high, cluster 2 *Md*=4.37 was very high, cluster 3 *Md*=2.71 was moderate, Cluster 4 *Md*=2.73 was moderate, and Cluster 4 *Md*=1.85 was low.

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4.6   Typology of Government System

This subtopic collects all of the study's findings to be analysed in order to complete the construction of a government system typology after all four processes have been implemented. Prior to that, this part serves to form a concept for each cell in the table's typology based on the dimensions and attribute characteristics found in the previous subtopic. As De Leeuw (in Hooghe et al., 2016) claims, the most crucial task in typology is to specify abstract concepts for a particular dimension. Concepts need to be concrete, contextually realistic, comprehensible, or substantively interpretable. It will not be simple. Those questions demand answers as a guideline. Where do concepts and terms come from? What concepts and terms were chosen by the researchers for each cell? Collier, Laporte, and Seawright (2008) assert that researchers must work systematically on concepts before constructing a typology. Researchers regularly borrow phrases and concepts from other studies in their field of study. Typologies are used to organize the meaning of concepts, usually by giving a new definition that the researcher finds useful for their analysis.

As a typology is a system of types that are set up in a logical way, a key part of how concepts and categorical variables are made, Collier, Laporte, and Seawright (2008) suggest three critical steps. First, focus on the concept, as it serves as the fundamental "data container" for study. Second, recognize that concepts have a hierarchical structure, sometimes known as a "ladder of abstraction" or a "ladder of generality" (Collier, Laporte, and Seawright, 2008). According to Collier, Laporte, and Seawright (2008), names or concepts (labelled in a cells) in typology can be borrowed from other research disciplines.

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In this study, no new concepts were created; rather, existing concepts from prior research were utilised, as stated in subtopic 4.2 and derived from quantitative findings in subtopic 4.5. Table 4.55 demonstrates that the majority of concepts (in each cell) are hierarchical, as the typology is continuous. A cluster in the far-left corner is a centralised unitary, which means that a cluster of unitary governments does not delegate specific powers to their subordinate units. Thus, the scale in the far-left corner was smaller in most dimensions. The scale increases steadily to the right. In terms of power, right-angled indicates that the meso-layer government enjoys greater power. Table 4.55 presents a complete government system typology produced according to Kluge's four steps.

Table 4.55

The Typology of Government System

Dimensions	Attributes	Unitary			Federation	
		Centralized	Decentralized	Regionalized	Centralized	Decentralized
Geography	Size of Country	Small	Medium	Medium	Large	Large
Sociology	Ethnic Diversity	Homogeneous	Homogeneous	Homogeneous	Heterogeneous	Heterogeneous
	Linguistic Diversity	Homogeneous	Homogeneous	Homogeneous	Homogeneous	Homogeneous
	Religious Diversity	Homogeneous	Heterogeneous	Heterogeneous	Heterogeneous	Heterogeneous
Politics	Democracies	Various	Various	Various	Various	Various
	Party System	Multi-Party	Multi-Party	Multi-Party	Multi-Party	Multi-Party
Legislature	Number of Chambers	Unicameral	Unicameral	Bicameral	Bicameral	Bicameral
Regional Authority	Self-Rule	Very Weak	Weak	Very Strong	Strong	Very Strong
	Shared Rule	Very Weak	Very Weak	Weak	Strong	Strong
Fiscal Decentralisation	Subnational Revenue	Very Low	Low	Low	Moderate	High
	Subnational Expenditure	High	High	Moderate	High	Very High
	Vertical Imbalance	Very High	High	Moderate	Low	Low
	Government Transfer	Very High	Very High	Moderate	Moderate	Low

Notes:

Size of country: measured in mean range either *very small* [<4.176], *small* [4.177- 4.940], *medium* [4.941-5.704], *large* [5.705-6.468], or *very large* [>6.469].
Ethnic, linguistic & religious diversity: measured in mean range either *highly homogeneo*us [< 0.25], *homogeneous* [0.26-0.35], *heterogeneous* [0.36-0.45], or *highly heterogeneous* [>0.46].
Democracies: measured in index either as an *authoritarian regime* [<3.9], *hybrid regimes* [4.0-5.9], *flaw democracy* [6.0-7.9] or *full democracies* [>8.0].
Party System: labelled as one party, two-party, multi-party, bipolar, dominant party, or non-party system.
Number of Chambers: *unicameralism* [a government with a single legislature], or *bicameralism* [a government with two houses, the House of Representatives, and the Senate].
Self-Rule: *very weak* [regional has no function general purpose administration or at least deconcentrated; very weak authoritative abilities in economic, cultural-educational, and welfare policies or residual power, police, own institution set-p or local government; central government sets the base and rate of all regional taxes; regional does not borrow; no regional legislature], *weak* [regional is deconcentrated, general purpose, administration subject to central government veto;

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regional authoritative competencies in one or two abilities in economic, cultural-educational, and welfare policies or residual power, police, own institution set-p or local government; regional set the rate of minor taxes; the regional government may borrow under prior authorization by the central government and with one or more of the following centrally imposed restrictions; indirectly elected regional assembly], *strong* [regional is non-deconcentrated, general purpose, administration not subject to central government veto; regional authoritative competencies in residual power, police, own institution set-p and local government, and competencies in at least two in economic, cultural-educational, and welfare policies; or regional government sets the base and rate of minor taxes; regional government may borrow without prior authorization and under one or more of (a) golden rule (e.g. no borrowing to cover current account deficits) or (b) no foreign borrowing or borrowing from the central bank or (c) no borrowing above a ceiling or (d) borrowing is limited to specific purposes; regional has an independent legislature and executive; regional executive is appointed by a regional assembly or directly elected], or *very strong* [regional is non-deconcentrated, general purpose, administration not subject to central government veto; regional authoritative competencies in residual power, police, own institution set-p and local government, as well as in economic, cultural-educational, and welfare policies; or regional government sets the base and rate of at least one major tax; regional government may borrow without centrally imposed restrictions; regional has an independent legislature and executive; regional executive is appointed by a regional assembly or directly elected].

Shared Rule: *very weak* [regional are not representatives co-determine national legislation; no routine meetings between central and regional to negotiate policy; neither the regional nor their representatives in a national legislature are consulted over the distribution of national tax revenues; regional are not routinely consulted over borrowing constraints; the central government or national electorate can unilaterally reform the constitution], *weak* [regions are the unit of representation in a national legislature; no routine meetings between central and regional to negotiate policy; neither the regional governments nor their representatives in a national legislature are consulted over the distribution of national tax revenues.; regional are not routinely consulted over borrowing constraints; a national legislature based on regional representation can propose or postpone constitutional reform, raise the decision hurdle in the other chamber, require a second veto in other chamber, or require a popular referendum], *strong* [regional governments designate representatives in a national legislature or have majority representation in a national legislature based on regional representation or the legislature based on regional representation has extensive legislative authority; routine meetings between central and regional governments without legally binding authority; regional governments or their representatives in a national legislature negotiate over the distribution of tax revenues, but do not have a veto; regional governments negotiate routinely over borrowing constraints but do not have a veto; regional governments or their representatives in a national legislature propose or postpone constitutional reform, raise the decision hurdle in the other chamber, require a second veto in other chamber, or require a popular referendum], or *very strong* [regional have majority representation in a national legislature based on regional representation and the legislature based on regional representation has extensive legislative authority; routine meetings between central and regional government with legally binding authority; regional governments or their representatives in a national legislature have a veto over the distribution of tax revenues; regional governments negotiate routinely over borrowing constraints and have a veto; Regional governments or their representatives in a national legislature can veto constitutional change].

Subnational Revenue, Expenditure, Vertical Imbalance & Government Transfer: decentralisation measured based on the range of *very low* [< 0.9], *low* [1.00-1.99], *moderate* [2.00-2.99], *high* [3.00-3.99] or *very high* [> 4.00]. The vertical imbalance between the central and subnational governments is high if the revenue does not balance the expenditure, indicating that the taxing capacity is low in comparison to the central government. This causes a high reliance on government transfers.

4.7 Conclusion

This chapter accomplished the primary objective of the study. The number of clusters had been calculated, and sample countries had been categorized according to respective dimensions and attributions. Six (6) dimensions were investigated in total, with 13 attributes derived from concepts, theories, and statistical test. The analysis of dimensions and attributes resulted in the development of a typology. All dimensions and attributes that shape cluster characters were used with statistical test. A typology of system of government is a classification based on five recognized clusters and presented in a continuum according to the degree of subnational power provided. Finally, each cluster characteristic can be determined, and a government typology system has been produced.

CHAPTER FIVE

PERFORMANCE ANALYSIS

5.1 Introduction

This chapter examines the performance of each cluster, also perfecting the final objective of the study. This performance analysis involves three important dimensions namely (1) economic performance, (2) fiscal performance, and (3) governance performance. Table 5.1 show the details indicators and data coverage period. All performance indicators contain time series data, depending on the availability of data sets.

Table 5.1
Performance Indicator

Performance	Indicators	Data Coverage
Economics	GDP rate	1970 - 2019
	GDP per capita	1970 - 2019
	Unemployment	1980 - 2019
	Inflation	1980 - 2019
Fiscal	Government Debt/GDP	1980 - 2019
Governance	Voice and Accountability	1996 -2019
	Political Stability and Absence of Violence	1996 -2019
	Government Effectiveness	1996 -2019
	Regulatory Quality	1996 -2019
	Rule of Law	1996 -2019
	Control of Corruption	1996 -2019

5.2   Correlation of Attributes and Performance

Based on previous empirical studies (see Table 2.13 and Table 2.14), researchers examine the correlation between federalism and performance, as well as the relationship between fiscal decentralisation and the corresponding performance. The tables show that there was a significant relationship between those variables. To do the same, this research seeks the relationship between performance indicators and the listed attributes. Table 5.2 presents the correlation coefficient values, and to simplify the analysis, the values and the strength of the relationship have been interpreted from Schober, Boer and Schwarte (2018) (see Table 3.5).   Next, Tables 5.3 and 5.4 providing a summary of the correlation coefficient.

5.2.1   Federalism and Performance

This study uses the interpretation of the correlation coefficient by Schober, Boer, and Schwarte (2018) to reveal the strength of the relationship between federalism's attributes and performance. According to Table 5.3, the economics indicator shows;

- the GDP rate discovered significant and weak positive correlation coefficient with ethnic diversity ($r=.24, p < .05$) and linguistic diversity ($r=.27, p < .05$).

- the GDP per capita proved a significant and strong positive correlation with democracy ($r=.77, p < .01$), but weak positive correlation coefficient with government system ($r=.27, p < .05$), regional authority ($r=.27, p < .05$) and shared rules ($r=.24, p < .05$). GDP, however had weak negative correlation coefficient with ethnic diversity ($r=-.35, p < .01$).

- the inflation rate had a statistically significant and negative moderate correlation with democracy ($r=-.40, p < .01$).

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Table 5.2

Correlations of Attributes and Performance

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
1 System of Government	-																																				
2 Size of Country	.476**	-																																			
3 Ethnic Diversity	0.11	0.17	-																																		
4 Linguistic Diversity	.239*	0.09	.519**	-																																	
5 Religion Diversity	.317**	0.02	0.03	0.07	-																																
6 Democracy	0.14	-0.15	.385**	-0.20	0.22	-																															
7 Party System	-0.04	0.10	0.18	0.18	-0.23	-0.22	-																														
8 Number of Chambers	.559**	.359**	0.18	0.21	0.17	0.03	0.11	-																													
9 Legislation Type	-0.17	0.00	0.16	0.07	.316**	-.249*	0.20	-0.05	-																												
10 Authority	.000**	.476**	0.11	.239*	.317**	0.14	-0.04	.559**	-0.17	-																											
11 Self-Rule	.859**	.505**	0.07	0.20	0.20	0.12	-0.10	.445**	-0.09	.859**	-																										
12 Shared Rule	.768**	.330**	0.06	0.16	.259*	0.12	-0.07	.489**	0.02	.768**	.743**	-																									
13 Institutional Depth	.757**	.475**	0.04	0.16	0.07	0.03	-0.10	.359**	-0.10	.757**	.913**	.677**	-																								
14 Policy Scope	.838**	.453**	0.08	0.18	.240*	0.14	-0.09	.429**	-0.08	.838**	.968**	.776**	.877**	-																							
15 Fiscal Autonomy	.787**	.380**	0.07	.244*	.304*	0.15	-0.11	.410**	-0.14	.787**	.867**	.719**	.673**	.827**	-																						
16 Borrow Autonomy	.797**	.476**	0.06	0.15	.244*	0.10	-0.13	.404**	-0.09	.797**	.910**	.647**	.742**	.875**	.843**	-																					
17 Representation	.768**	.523**	0.08	0.18	0.08	0.12	-0.06	.429**	-0.03	.768**	.926**	.605**	.885**	.871**	.667**	.763**	-																				
18 Law Making	.681**	.354**	0.18	0.16	0.20	-0.02	-0.05	.518**	0.06	.681**	.689**	.904**	.618**	.724**	.683**	.638**	.533**	-																			
19 Executive Control	.717**	.366**	0.01	0.10	.291*	0.22	-0.12	.449**	0.03	.717**	.697**	.850**	.579**	.730**	.681**	.614**	.597**	.703**	-																		
20 Fiscal Control	.605**	0.02	-0.05	0.11	.241*	0.21	-0.02	.340**	0.01	.605**	.557**	.821**	.491**	.612**	.522**	.497**	.452**	.702**	.610**	-																	
21 Borrow Control	.546**	0.10	-0.08	0.05	0.16	0.19	0.03	.296*	-0.13	.546**	.435**	.742**	.427**	.495**	.356**	.308**	.394**	.530**	.707**	.715**	-																
22 Constitutional Reform	.735**	.383**	0.09	0.19	.235*	0.07	-0.09	.464**	0.03	.735**	.728**	.962**	.687**	.739**	.718**	.629**	.867**	.760**	.701**	.605**		-															
23 Subnational Revenue	.551**	.470**	0.01	0.03	.282*	.237*	-0.18	0.16	-0.19	.551**	.506**	.491**	.388**	.513**	.573**	.507**	.372**	.450**	.516**	.317**	0.19	.503**	-														
24 Subnational Expenditure	.240*	0.09	-0.05	-0.07	.328**	0.18	-.263*	0.07	-0.01	.240*	.300*	.260	0.22	.309**	.317**	.286*	.252*	0.21	.288*	.292*	0.06	.240*	.309**	-													
25 Vertical Imbalance	-.261*	-0.20	0.04	-0.12	-0.14	-0.11	-0.02	-0.03	0.02	-.261*	-.283*	-.255*	-.250*	-.262*	.409**	.322**	-0.11	-.253*	-0.24	-0.18	-0.10	-.255*	.398**	-0.23	-												
26 Government Transfer	-.304*	-0.13	0.07	0.00	-0.28	-0.27	0.06	-0.11	0.07	-.304*	-.316*	-0.27	-0.20	-0.27	.463**	.414**	-0.16	-0.24	-.312*	-0.23	-0.06	-0.27	.384**	.421**	.967**	-											
27 GDP Rate	0.00	-0.05	.243*	.273*	-0.06	-0.22	0.11	0.07	0.08	0.00	0.01	-0.03	-0.04	0.01	0.10	0.03	-0.03	0.07	-0.12	0.07	0.02	-0.08	-0.19	-0.15	-0.04	0.04	-										
28 GDP per Capita	.266*	-0.18	.350**	-0.11	0.14	.757**	-0.16	0.07	-0.14	.266*	0.21	.237*	0.08	0.20	.322**	.253*	0.13	0.11	.291*	.292*	0.20	0.20	.310**	0.11	-0.15	-.319*	-.259*	-.304*	-								
29 Unemployment Rate	0.09	-0.12	0.15	0.06	0.15	-0.24	-0.17	-0.05	-0.06	0.09	0.19	0.14	0.18	0.19	0.18	0.17	0.15	0.16	0.02	0.21	0.11	0.12	-.247*	.257*	0.04	-0.14	.410**	-.304*	-								
30 Inflation Rate	-0.09	0.17	0.22	-0.10	0.03	.401**	0.02	-0.14	0.09	-0.09	-0.08	0.00	-0.04	-0.06	-0.13	-0.05	-0.06	0.08	-0.05	-0.07	0.03	-0.02	0.24	-0.04	0.05	-.264*	-.272*	0.22		-							
31 Government debt/GDP	.340**	0.13	-0.18	-0.21	-0.02	0.07	-0.11	0.21	-0.15	.340**	.326**	0.17	.315**	.277*	.311**	.237*	.331**	0.09	0.21	0.08	0.10	0.18	0.12	0.08	0.06	-0.11	-0.18	0.17	0.01	-0.08	-						
32 Voice & Accountability	-0.06	-0.07	-0.08	-0.07	-.249*	-0.05	-0.22	-0.18	-0.09	-0.06	0.05	0.02	0.16	0.07	-0.02	0.03	0.01	0.01	-0.03	-0.01	-0.03	0.05	0.08	0.09	0.04	-.315*	-0.10	0.00	0.03	0.03	0.07	-					
33 Political Stability	0.08	-.291*	.473**	-.287*	0.22	.861**	-0.17	-0.04	-0.21	0.08	-0.02	0.06	-0.11	-0.03	0.08	0.01	-0.06	-0.10	0.18	0.19	0.17	0.00	0.15	0.14	-0.16	-.344*	-.257*	.798**	-0.20	-.246*	0.11	-0.10	-				
34 Government Effectiveness	.280*	-0.12	.381**	-0.16	0.23	.882**	-0.06	0.09	-0.22	.280*	0.21	.242*	0.13	0.21	.269*	0.20	0.16	0.08	.312**	.265*	.273*	0.21	.260*	0.14	-0.18	-.296*	-.268*	.880**	-.300*	-.334*	0.15	-0.06	.882**	-			
35 Regulatory Quality	0.18	-0.18	.352**	-0.19	.271*	.872**	-0.07	0.04	-0.22	0.18	0.11	0.14	0.05	0.12	0.16	0.12	0.07	-0.01	0.23	0.18	0.20	0.15	0.12	-0.13	-0.25	-.258*		.816**	-.249*	-.296*	0.04	-0.11	.888**	.961**	-		
36 Rule of Law	.256*	-0.15	.422**	-0.16	.236*	.886**	-0.08	0.09	-.244*	.256*	0.20	0.20	0.12	0.19	.257*	0.18	0.14	0.14	.284*	.246*	.248*	0.16	0.22	-0.15	-0.20	-.323*	-0.20	.866**	-.259*	-.342**	0.16	-0.08	.902**	.979**	.951**	-	
37 Control of Corruption	.252*	-0.13	.393**	-0.18	0.23	.890**	-0.12	0.08	-0.21	.252*	0.19	0.21	0.10	0.19	.259*	0.20	0.14	0.05	.281*	.277*	.247*	0.16	0.23	0.19	-0.20	-.333*	-0.22	.877**	-0.24	-.311**	0.12	-0.07	.893**	.973**	.942**	.979**	-
M	11.0	5.36	0.35	0.29	0.37	7.07	3.04	1.53	1.80	11.0	8.95	2.13	2.22	1.58	1.22	1.13	2.81	0.42	0.29	0.29	0.12	1.01	0.16	0.34	0.44	0.44	3.70	11902	8.32	78.32	52.8	18.06	0.34	0.51	0.56	0.43	0.40
SD	9.18	0.76	0.07	0.07	0.05	1.52	0.36	0.50	0.91	9.18	5.27	2.84	1.03	1.09	1.20	0.88	1.55	0.53	0.48	0.47	0.31	1.39	0.12	0.13	0.19	0.21	1.74	11966	4.27	182.3	28.8	26.72	0.83	0.94	0.84	1.01	1.09

Note ** $p < .01$ level (2-tailed), * $p < .05$ level (2-tailed), (N=70).

Table 5.3

Correlation Coefficient of Federalism Attributes and Performance

Federalism	Performance	Correlation		
System of Government (Unitary/Federation)	GDP per Capita	Positive	Weak	.27*
	Government debt/GDP	Positive	Weak	.34**
	Government Effectiveness	Positive	Weak	.28*
	Rule of Law	Positive	Weak	.26*
	Control of Corruption	Positive	Weak	.25*
Size of Country	Political Stability	Negative	Weak	-.29*
Ethnic Diversity	GDP Rate	Positive	Weak	.24*
	GDP per Capita	Negative	Weak	-.35**
	Political Stability	Negative	Moderate	-.47**
	Government Effectiveness	Negative	Weak	-.38**
	Regulatory Quality	Negative	Weak	-.35**
	Rule of Law	Negative	Moderate	-.42**
	Control of Corruption	Negative	Weak	-.39**
Linguistic Diversity	GDP Rate	Positive	Weak	.27*
	Political Stability	Negative	Weak	-.29*
Religious Diversity	Voice & Accountability	Negative	Weak	-.25*
	Regulatory Quality	Positive	Weak	.27*
	Rule of Law	Positive	Weak	.24*
Democracy	GDP per Capita	Positive	Strong	.77**
	Inflation Rate	Negative	Moderate	-.40**
	Political Stability	Positive	Strong	.86**
	Government Effectiveness	Positive	Strong	.88**
	Regulatory Quality	Positive	Strong	.87**
	Rule of Law	Positive	Strong	.89**
	Control of Corruption	Positive	Strong	.89**
Legislation Type	Rule of Law	Negative	Weak	-.24*
Regional Authority	GDP per Capita	Positive	Weak	.27*
	Government debt/GDP	Positive	Weak	.34**
	Government Effectiveness	Positive	Weak	.28*
	Rule of Law	Positive	Weak	.26*
	Control of Corruption	Positive	Weak	.25*
Self-Rule	Government debt/GDP	Positive	Weak	.33**
Shared Rule	GDP per Capita	Positive	Weak	.24*
	Government Effectiveness	Positive	Weak	.24*

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Regarding Table 5.3, the fiscal performance indicator shows the coefficient of;

- the government debt/GDP had a statistically significant and positive weak correlation with the system of government ($r=.34\ p < .01$), regional authority ($r=.34\ p < .01$) and self-rule ($r=.33\ p < .01$)

While the governance performance indicator shows that the coefficient of;

- voice and accountability were statistically significant and had a weak negative correlation with religious diversity ($r=-.25, p < .05$).

- political stability and absence of violence were significant and strongly positive with ethnic diversity ($r=.86, p < .01$) but had significant and moderate negative correlation with ethnic diversity ($r=-.47, p < .01$) and had significant and negative weak correlation with both country size ($r=-.29, p < .05$) and linguistic diversity ($r=-.29, p < .05$).

- government effectiveness was statistically significant and strong positive correlation with democracy ($r=.88, p < .01$), significant and weak positive correlation with government system ($r=.28, p < .05$), regional authority ($r=.28, p < .05$) and shared rule ($r=.24, p < .05$), but significant and weak negative correlation with ethnic diversity ($r=-.38, p < .01$).

- regulatory quality statistically was significant and strong positive correlation with democracy ($r=.87, p < .01$), weak positive correlation with religious diversity ($r=.27, p < .05$), but weak negative correlation with ethnic diversity ($r=-.35, p < .01$).

- rule of law was statistically significant and strong positive correlation with democracy ($r=.89, p < .01$), weak positive correlation with government system ($r=.26, p < .05$), religious diversity ($r=.24, p < .05$), and regional authority

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($r=.26$, $p < .05$), but moderate negative correlation with ethnic diversity ($r=-.42$, $p < .01$) and weak negative correlation with legislation type ($r=-.24$, $p < .05$).

- control of corruption was significant and strong positive with democracy ($r=.89$, $p < .01$), weak positive correlation with system of government ($r=.25$, $p < .05$) and regional authority ($r=.25$, $p < .05$), but had negative weak correlation with ethnic diversity ($r=-.39$, $p < .15$).

5.2.2 Decentralisation and Performance

Table 5.4 shows the correlation coefficient of fiscal decentralization attributes and performance. According to Table 5.4, the fiscal decentralisation shows the coefficient of;

- subnational revenue had a statistically significant and weak positive correlation with the GDP per capita ($r=.31$ $p < .01$), and government effectiveness ($r=.36$ $p < .05$), whereas had weak negative correlation with unemployment rate ($r=-.27$ $p < .05$).

- government transfer had all statistically significant and weak negative correlation with GDP per capita ($r=-.32$ $p < .01$), and with five governance performance indicators, i.e., voice and accountability ($r=-.32$ $p < .01$), political stability ($r=-.34$ $p < .01$), government effectiveness ($r=-.30$ $p < .01$), rule of law ($r=-.32$ $p < .01$), and control of corruption ($r=-.33$ $p < .01$).

Table 5.4

Correlation Coefficient of Fiscal Decentralization Attributes and Performance

| Fiscal Decentralization	Performance	Correlation		
	GDP per Capita	Positive	Weak	.31**
Subnational Revenue	Unemployment Rate	Negative	Weak	-.25*
	Government Effectiveness	Positive	Weak	.26*
	GDP per Capita	Negative	Weak	-.32*
	Voice & Accountability	Negative	Weak	-.32*
	Political Stability	Negative	Weak	-.34*
Government Transfer	Government Effectiveness	Negative	Weak	-.30*
	Rule of Law	Negative	Weak	-.32*
	Control of Corruption	Negative	Weak	-.33*

5.3 Inter-Cluster Comparison

This section distinguished performances between clusters based on the inter-cluster comparison indicators. Through this inter-cluster analysis, which cluster in the system promotes the highest performance can be found, and a boxplot was employed for this purpose for each dataset.

5.3.1 Economic Performance

Economic performance reviews four main indicators of the economy, namely the GDP rate, GDP per capita, unemployment rate, and inflation rate. Figure 5.1 illustrates the variance in GDP growth rates across five clusters. In the overall ranking, Cluster 1 had the highest score, followed by Cluster 5, Cluster 4, Cluster 2 and Cluster 3, which had the lowest. Cluster 1 had the greatest concentrations in the median, maximum, and lower quartile Q1. While Cluster 5 had the highest mean and the upper quartile Q3, Cluster 4 had the best minimum in terms of GDP rate score.

Figure 5.1
Inter-Cluster Comparison Clusters in GDP rate
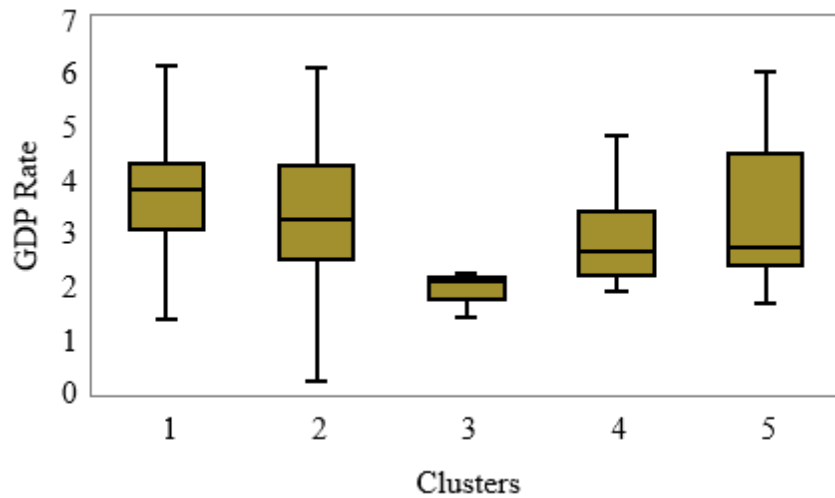
Next, Figure 5.2 shows the variation in the GDP per capita in five clusters. The box plot indicates that cluster 3 had the highest mean, minimum, lower quartile Q1 and upper quartile Q3, while the maximum was in cluster 4 and the median was in cluster 5. Cluster 3 had the highest GDP per capita overall, followed by cluster 5, cluster 4, cluster 2, and cluster 1 had the lowest GDP per capita.

Figure 5.2
Inter-Cluster Comparison Clusters in GDP per capita
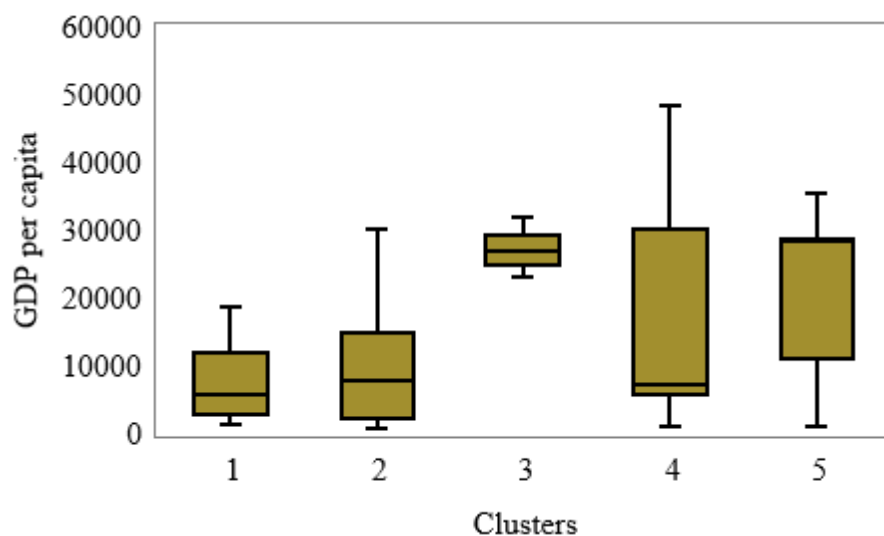
Following that, an inter-cluster comparison of unemployment rates between clusters was conducted. According to Figure 5.3, the top score was recorded in cluster 5, while the lowest came in cluster 4. The box plot indicates that cluster 5 had the highest mean, minimum, the upper quartile Q3 and the maximum. While cluster 3 had the highest in the lower quartile Q1 and the median. Cluster 5 received the highest overall ranking, followed by cluster 1, cluster 3, cluster 2, and cluster 4 which had the lowest unemployment rate; the lower the better.

Figure 5.3
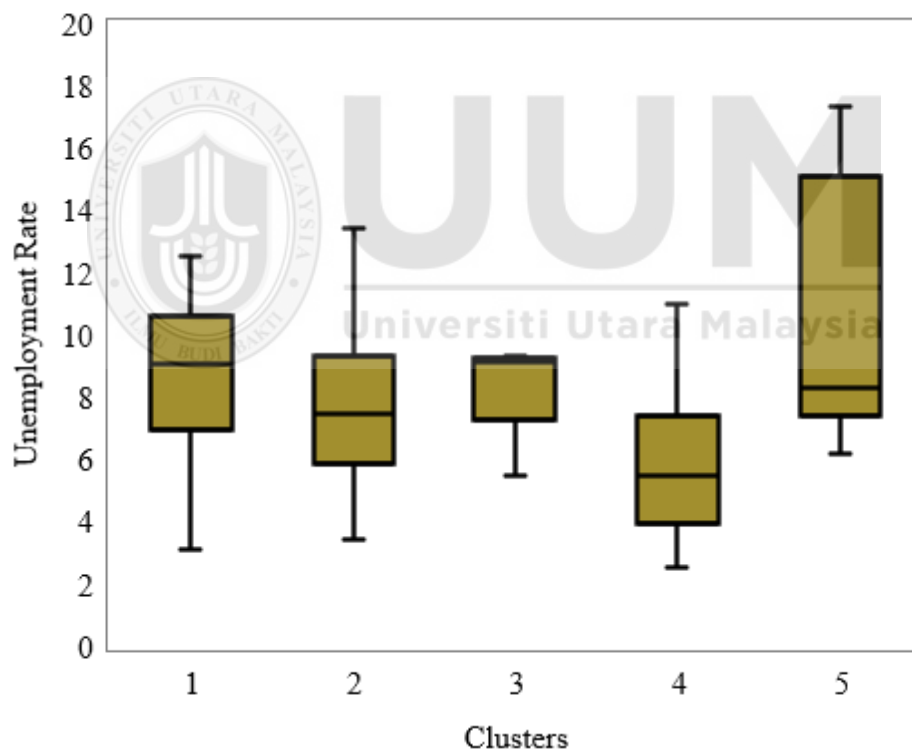*Inter-Cluster Comparison Clusters in Unemployment Rate*

Figure 5.4 depicts the variation in inflation rates across five groups. These box plots show the cluster's outliers in Cluster 1 (Nicaragua's 1110.07 percent, Lithuania's 165.31 percent, and Latvia's 117.45 percent), Cluster 2 (Ukraine's 677.81 percent, Bolivia's 485.91 percent, Peru's 424.62 percent, and Croatia's 327.77 percent), and

Cluster 4 (Brazil's 412.08 percent). The median value was greatest in Cluster 1, followed by Cluster 2, Cluster 4, Cluster 3, and Cluster 5. Cluster 3 (Netherlands, 4.06 percent to Italy, 9.06 percent) and Cluster 5 (Germany, 3.35 percent to Spain, 9.28 percent) had the highest concentrations of inflation rate scores (less than 10%), whereas Cluster 4 had a high degree of inflation rate dispersion, ranging from Switzerland, 3.45 percent to Argentina, 306.97 percent. The box plot shows that cluster 4 had the highest mean, the upper quartile Q3 and the maximum. While cluster 1 also had the highest in the lower quartile Q1 and cluster 2 had scored in the minimum. In the overall ranking, cluster 1 was the first placed, followed by cluster 2, cluster 4, cluster 3, and cluster 5, which had the lowest inflation rate the better.

Figure 5.4
Inter-Cluster Comparison Clusters in Inflation Rate
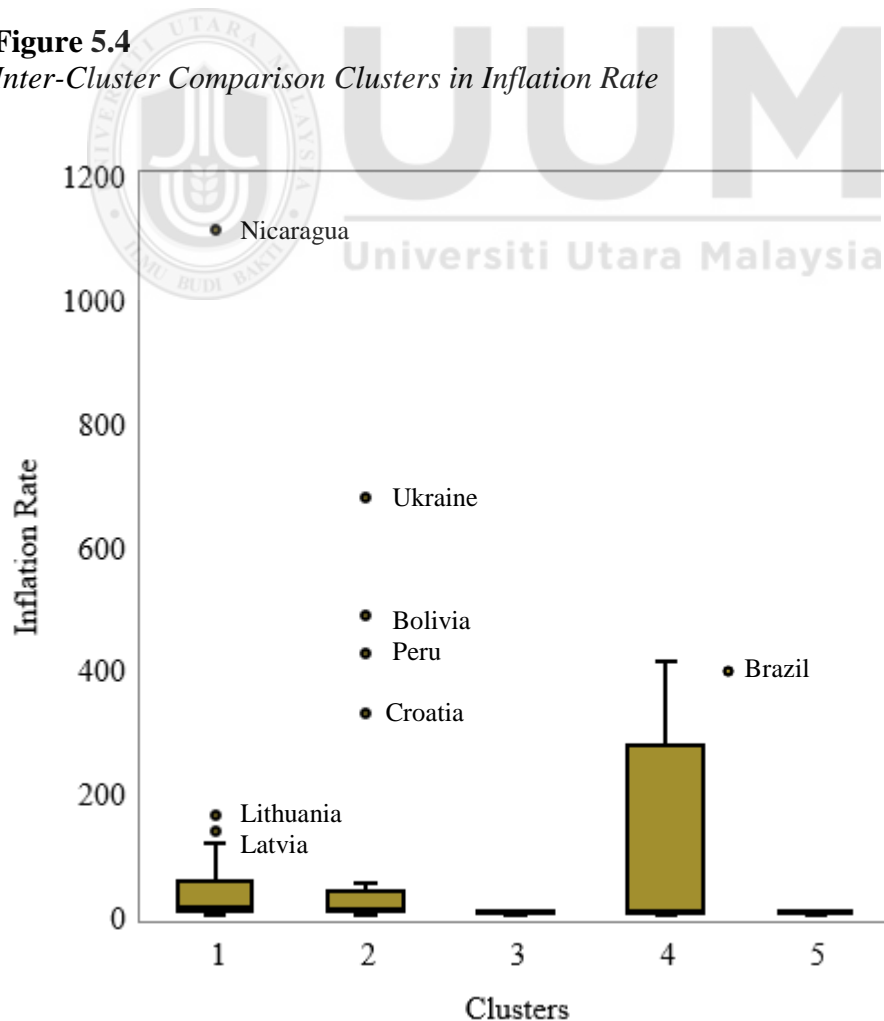
5.3.2   Fiscal Performance

As seen in Figure 5.5, government debt per GDP was plotted differently in the five clusters. The box plot shows that cluster 3 had the highest mean, the maximum, the upper quartile Q3 and the median. While cluster 5 had the highest in the lower quartile Q1 and the minimum. In the ranking, cluster 3 was the highest, followed by Cluster 5, Cluster 4, Cluster 2, and the lowest was Cluster 1. Cluster 3 had a much more dispersed score in the government debt per GDP, ranging from the Netherlands' 55.67 percent to Italy's 118.52 percent.

Figure 5.5
Inter-Cluster Comparison Clusters in Government debt per GDP
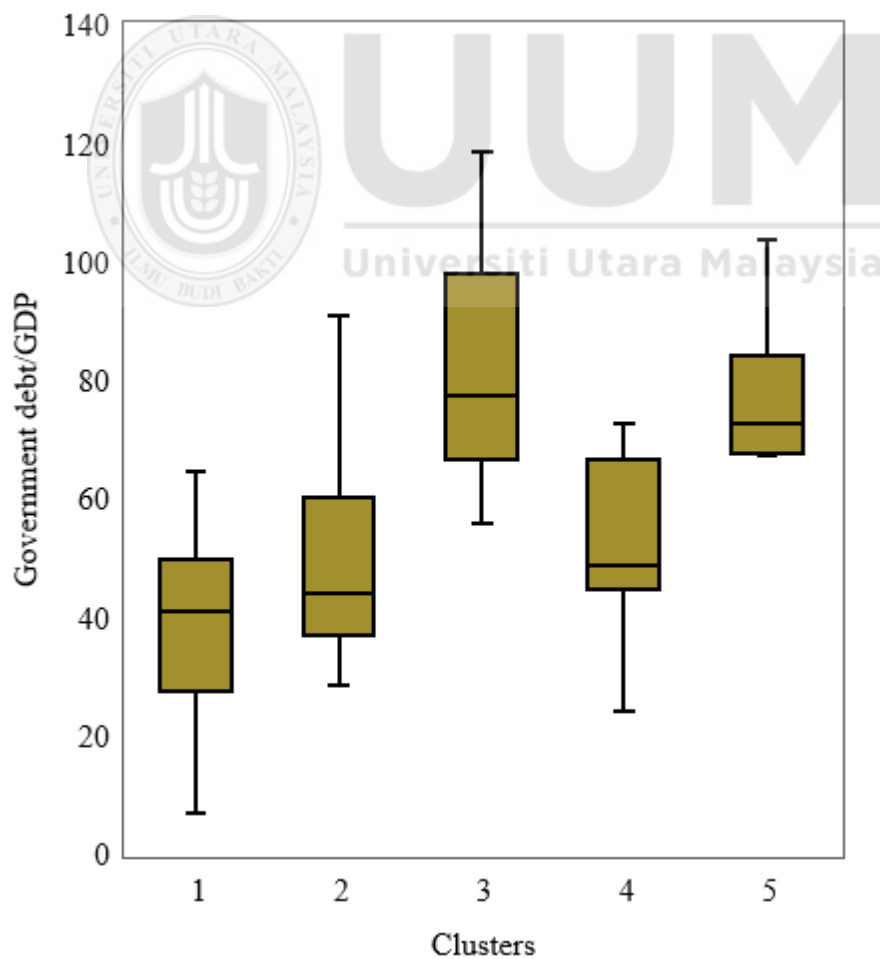
5.3.3   Governance Performance

This subject explores governance performance through the lens of six performance indicators: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and corruption control. The governance performance was estimated using a range of around -2.5 (weak) to 2.5 (strong) governance performance.

The box plots in Figure 5.6 show the performance of five groups in terms of voice and responsibility. Almost all clusters had the same top score, while Cluster 2 scored the highest (Norway, 1.59) and Cluster 2 also scored the lowest (Myanmar, -1.78). The median value was greatest in Cluster 3 and Cluster 5, followed by Cluster 1, Cluster 2, and Cluster 4. Cluster 3 had the highest concentrations, from Italy, 1.05 to the Netherlands, 1.55, whereas Cluster 4 was much more dispersed, ranging from Malaysia, -0.36 to Switzerland, 1.51.

Figure 5.6
Inter-Cluster Comparison Clusters in Voice and Accountability
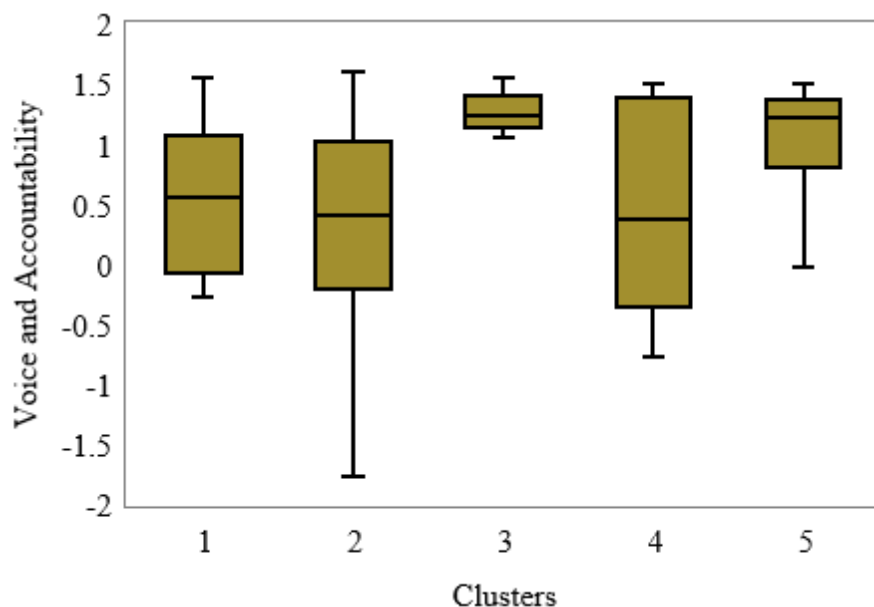
Next, Figure 5.7 illustrates how political stability and the absence of violence vary within five clusters. The box plots demonstrate that the greatest score was attained in Cluster 1 (Finland, 1.53) but that the lowest value was obtained in Cluster 2 (Myanmar, -1.27) and Cluster 4 was identical (Pakistan, -1.27). Cluster 3 represents a higher concentration of political stability and the absence of violence in term of the median, the mean, the lower quartile Q1 and the minimum. In the ranking, cluster 3 was the highest, followed by Cluster 5, Cluster 1, Cluster 4, and Cluster 2.

Figure 5.7
Inter-Cluster Comparison Clusters in Political Stability and Absence of Violence
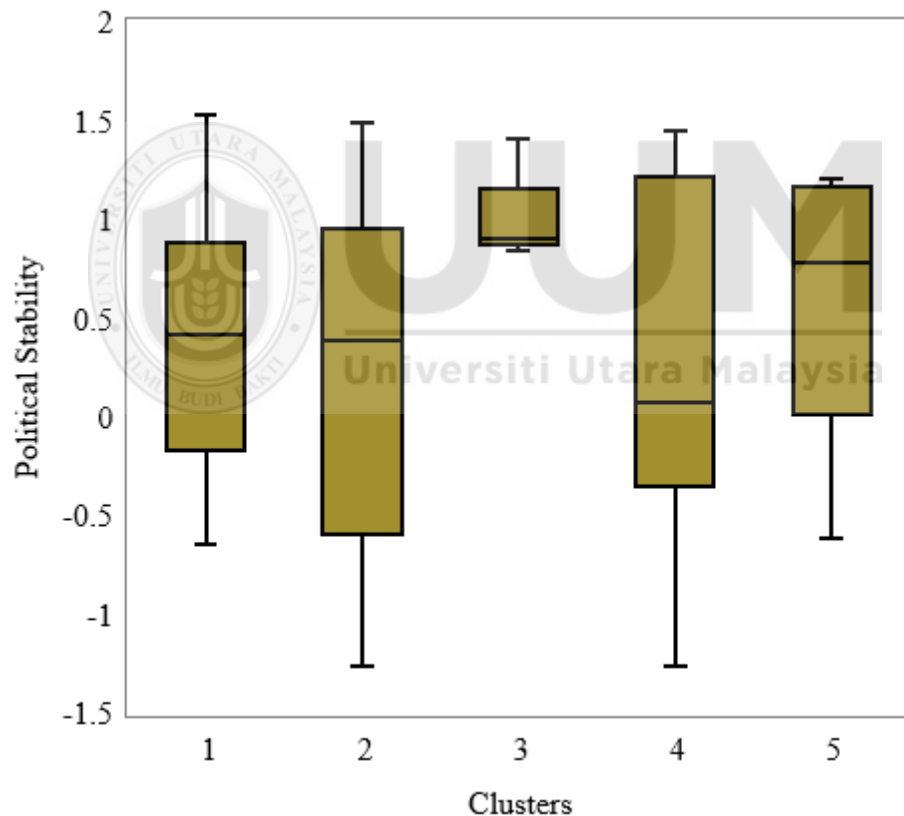
According to Figure 5.8, government effectiveness was plotted differently in the five clusters. The maximum score was in Cluster 1 (Finland, 2.02), but the minimum score was in Cluster 2 (Myanmar, -1.31). Cluster 3 represents highest concentrations,

ranging from Italy (0.61) to the Netherlands (1.91) in term of the mean, the upper

quartile Q3, the lower quartile Q1, and the minimum. In the ranking, cluster 3 was the

highest, followed by Cluster 5, Cluster 4, Cluster 2, and Cluster 5.

Figure 5.8
Inter-Cluster Comparison Clusters in Government Effectiveness
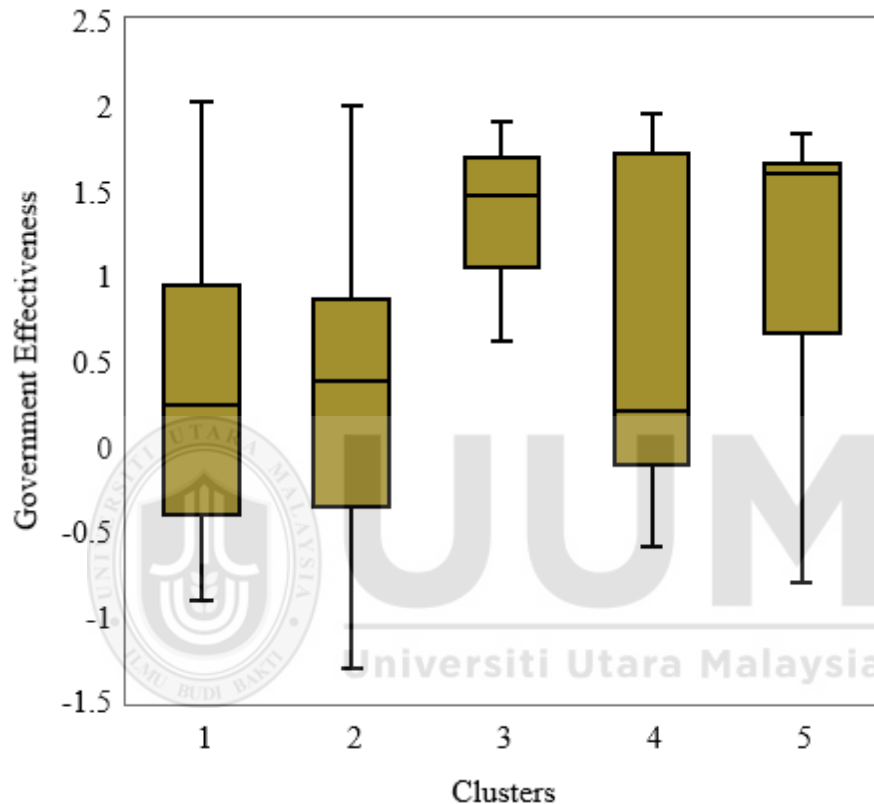
Following that, an inter-cluster comparison of regulatory quality between clusters was

conducted. According to Figure 5.9, the box plot indicates that cluster 3 had the

highest mean, the lower quartile Q1, and the minimum. While cluster 5 had the highest

median, the upper quartile Q3 was in cluster 4 and the maximum was in cluster 2. In

the overall ranking, cluster 3 had the highest, followed by cluster 5, cluster 1, cluster

4, and cluster 2.

Figure 5.9

Inter-Cluster Comparison Clusters in Regulatory Quality
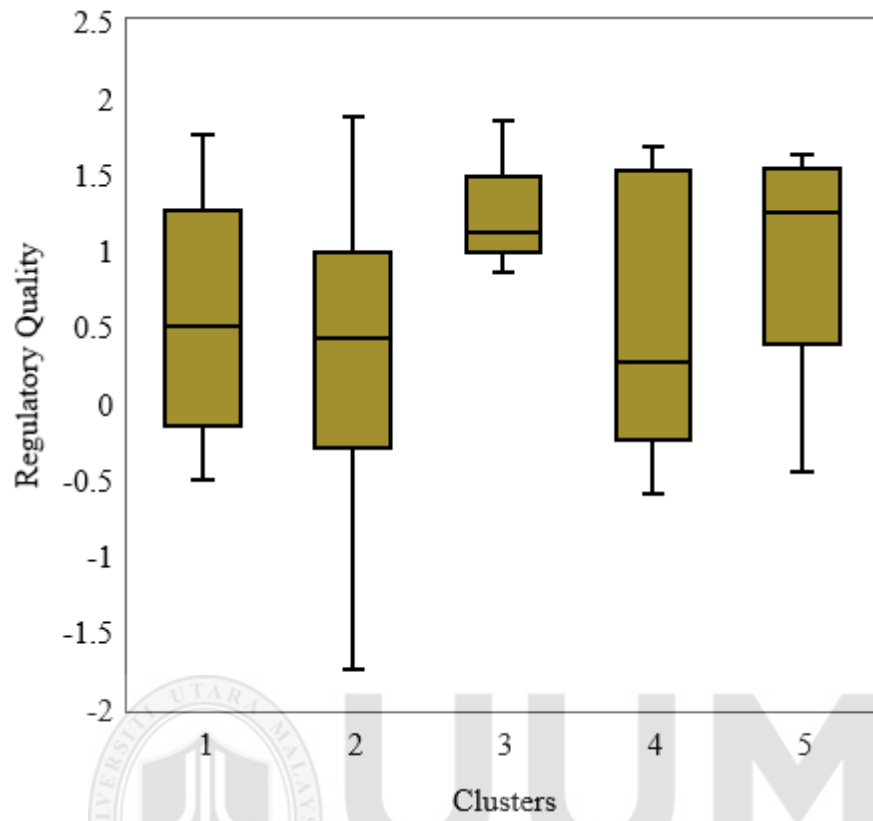
Next, the box plot in Figure 5.10 illustrates the performance of five groups in terms of rule of law. The box plot shows that cluster 3 had the highest mean, the median, lower quartile Q1 and the minimum. While cluster 4 had the highest in the upper quartile Q3 and cluster 1 had scored in the maximum. In the overall ranking, cluster 3 was the first placed, followed by cluster 5, cluster 4, cluster 1, and cluster 2 was the lowest rule of law.

Figure 5.10
Inter-Cluster Comparison Clusters in Rule of Law
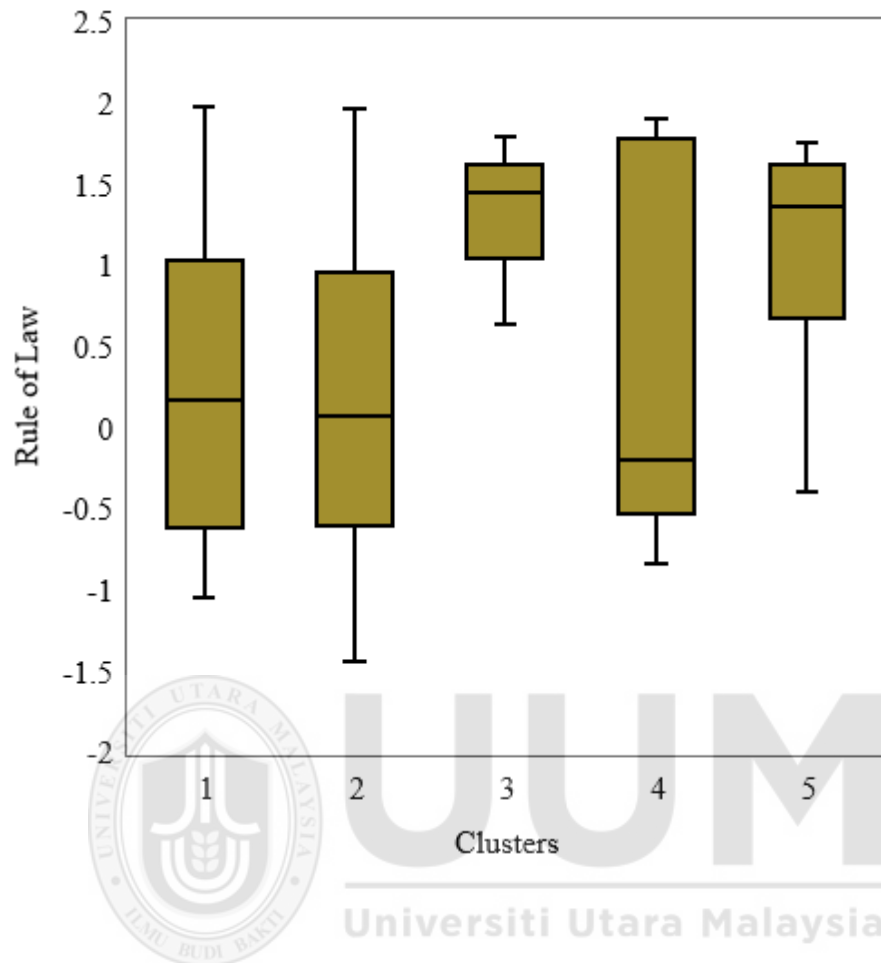
Lastly, Figure 5.11 illustrates control of corruption vary within five clusters. The box plot demonstrates that the greatest mean, the upper quartile Q3, the lower quartile Q1 and the minimum was in cluster 3. While cluster 5 had the highest in the median and cluster 2 had scored in the maximum. In the overall ranking, cluster 3 was the highest placed, followed by cluster 5, cluster 4, cluster 2, and cluster 1 was the control of corruption.

Figure 5.11

Inter-Cluster Comparison Clusters in Control of Corruption
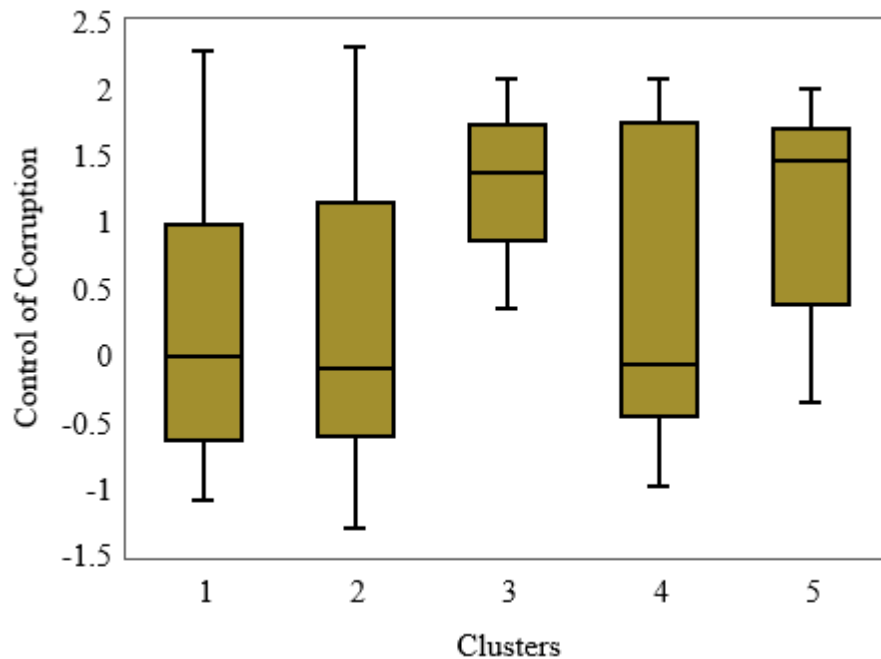
5.4   Conclusion

Box plot analysis is a faster method for comparing two or more plots through the use of boxes and whiskers, median lines, minimum and maximum, the lower quartile Q1 and the upper quartile Q3, and outliers (Ngo, 2018). Based on this methodology, the second objective of the study has been met, and the fifth research question has been answered. Cluster 5 had the best overall economic performance, as measured mostly by GDP rate, GDP per capita, and inflation rate, whereas cluster 4 had the lowest unemployment rate. Both federation clusters were graded on their overall economic performance ranking. From the fiscal performance indicator, cluster 3 likewise has the greatest ratio of government debt to GDP, followed by clusters 5 and 4. In governance performance, cluster 1 dominates the rankings for each of the six indicators. Cluster 5 occupies the second-best position, followed by cluster 4. Cluster 2 is the next unitary cluster country, and cluster 1 comes in last.

CHAPTER SIX

DISCUSSION OF FINDINGS AND CONCLUSION

6.1   Introduction

This chapter serves as an epilogue to the study, as it recaps and ends the entire journey.

This part must be well organized to avoid omitting any critical information. In general,

this study explores the changes in the unitary-federation system as a result of the

federalization process within unitary countries as mentioned by some scholars. The

study begins by examining the distinctions between the two systems (unitary vs

federation) in terms of definition, theory, the origins, and the formation of the

government system.   Regionalization and decentralisation in the 1970s and 1980s

introduced a new paradigm of power division, notably in the unitary state.   Both

processes contribute to the redistribution of territorial authority and the enhancement

of subnational capacity and function.

For a limited number of unitary countries, some of their central governments

undoubtedly delegate some powers to subnational units, albeit this process takes time.

The majority retain substantial central government powers and subnational

governments serve primarily as administrators on behalf of the central government.

This research discovered many noteworthy changes that occur across unitary

countries, and they fall into a separate category and characteristic. Additionally, the

research assesses each cluster's performance utilising economic, fiscal, and

governance performance indicators. Finally, this chapter discusses the study's contributions and limitations before ending with suggestions for further research and reflection.

6.2   Research Problem Overview

Understanding the dichotomy of unitary vs. federation systems of government appeared so straightforward in the beginning. It can be understood by contrasting the two concepts in a dichotomous manner. Unitary states with a strong central government make all decisions, while subordinate units serve only as administrators and implementers of programmes and policies decided by the central authority. These constituent units work without power and solely as per directives. This system appears simpler, likely due to the fact that it is the most widely used system in the world yet the least studied scientifically. In contrast to the federation system, this system receives greater attention in the majority of scholarly discourses, whether discussed directly or as a part of study in the political, administrative, legal, economic, and social sciences. The federated system is a hierarchical form of governance, and the constitution specifies who has what powers, although it is impractical to ensure symmetry or asymmetry in the balance of power.

Over the last four decades, the distinction between unitary and federation systems has become increasingly blurred, as regionalisation and decentralisation have emerged as significant global trends. Regionalisation and decentralisation are responsible for redistribution of power across borders and for strengthening broader society's subnational capacity and function. Both have indirectly facilitated the expansion of *"federalization processes"* within unitary states. As a result, it was difficult to

differentiate between unitary and federated territory management and power-sharing structures. This *"intermediate system"* was an apparently novel form of territorial division of power that was never classified as an incomplete federation or an evolutionary type of unitary system. This indicates that the unitary vs. federation dichotomy is becoming incongruous and that the existing classification is no longer relevant. The conventional classification of government systems had lost the ability to depict empirical reality due to (1) the obsolete dichotomy and (2) the unclear compositions (y category) or inadequate dimensions as a precursor identification. It is a gap that should be readdressed. As required, this research employed a scientific classification in a broad perspective.

According to Lijphart (2012), separating centralised and decentralised from federation or unitary constitutions is quite impossible; given that federations and unitary countries can both be centralised and decentralised. However, this research had discovered five significant groups via clustering analysis method. Based on Regional Authority Index from 1970 to 2018, *n*=70 selected country cases was analysed using hybrid clustering analysis with k-means clustering as the primary analysis. Lijphart (2012) previous study of *n* = 36 democracies (coverage period 1945–1996) outlined five categories on an ordinal scale of 1 to 5: (1) unitary and centralized, i.e. France, Italy, Luxembourg, and Ireland; (2) unitary and decentralized, i.e. Denmark, Finland, Sweden, and Japan; (3) semi-federal states, i.e. the Netherlands, Spain, and Belgium (before 1993); (4) federal and centralized federations, i.e. Venezuela, Austria, and India; and (5) decentralized federations, i.e. the United States, Germany, Belgium (post-1993). This research finding however in contrast to Lijphart (2012), this cluster analysis determined that Italy and France were classified as *"regionalized"* or *"semi-federal"*

as stated by Lijphart (2012) or as *"intermediate clusters"* as mentioned by Loughlin (2014). Loughlin (2014) also noted that the placement of France and Italy in the unitary centralized category by Loughlin was questionable, since it could reflect the fact that the initial research conducted in the 1980s, excluded current developments and reforms in Italy and France. Based on this finding, France and Italy experienced significant changes in the 2000s (see Figure 4.41). Notwithstanding, the placements of countries within the clusters may change as regional autonomy and control grow complex.

6.3 Research Objective

As mentioned in subtopic 1.3, this research has set two research objectives to be achieved, namely (1) to construct a typology of government systems and (2) to examine which groups promote better performance. Therefore, the subsequent part discusses these two research objectives (RO) and answering the pertinent research questions (RQ).

6.3.1 RO1: Typology Construction

Constructing a typology was a real hassle. First, how was a typology constructed? The majority of construction-related articles were qualitative in style. Byrne and Roberts (2007) designed an offender typology based on the theoretical roots and used the implications of policy and practise to classify the offender's behaviour with the characteristics of criminal commission. In the same way, Varmazyari et al. (2022) developed a new typology based on grounded theory and had in-depth interview analysis to explore the process and implications for new ecolodge entrepreneurs in an emerging market. Emery (2011) made a typology by taking apart existing ones and putting together new ones based on fundamental concepts. Göhner and Krell (2020)

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involved *n*=32 teachers to develop a typology of pre-service science teacher modelling. The videos of the participants were transcribed verbatim after they were recorded during the modelling exercise. This qualitative content analysis then identified a sequence of modelling activities using transition graphs. Six types of modelling strategies were obtained and, based on this, Göhner and Krell (2020) then built a typology using an empirically grounded construction of types and typologies in qualitative by Kluge (2000).

Yiu, Cheung, and Cheung (2007) construct a more detailed typology of mediation tactics. In the four stages of typology construction, Yiu, Cheung, and Cheung (2007) used a mixed method. Stage I was a desktop analysis involving a background study and evaluation of previous literature on mediation. The objective of Stage I was to develop a long list of mediation tactics. The next stage was a quantitative approach. In Stage II, data from questionnaires was collected, involving the expertise of construction mediators. In Stage III, Exploratory Factor Analysis (EFA) and Hierarchical Cluster Analysis (HCA) were used to discover the group structure. Both methods were compared, and confirmatory factor analysis (CFA) was also performed. Lastly, Stage IV was a confirmatory analysis. This was done using a Structural Equation Modelling (SEM) method to check the validity of the structural typology.

For this study, a mixed method was established similar to Yiu, Cheung, and Cheung (2007), but adopted Kluge's (2000) model to build a typology like Göhner and Krell (2020). As explained in subtopic 3.4.3, empirically based type construction rules by Kluge (2000) involves four steps: (1) *develop relevant analysing dimensions* (2) *grouping the cases and empirical regularity analysis* (3) *analysing meaningful*

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relationship and type construction, and (4) *characterisation of the constructed types*. Since Kluge's type of construction rule was used qualitatively, the first crucial step was also implemented qualitatively in this study. However, the second, third, and fourth steps required a quantitative approach in order to "break the deadlock of qualitative analysis," as stated by Collier, Laporte, and Seawright (2008). Figure 3.5 demonstrated how the mix method worked to meet this first objective and the four research questions listed to be answered in the next section.

6.3.1.1 RQ1: What are the Relevant Dimensions for a Typology of Government Systems?

Constructing typologies using earlier qualitative approaches proved challenging. Even the process of obtaining data and information involving many countries using qualitative analysis was very difficult. From one perspective, the available data (local and international studies) provides more information on established federations, while unitary-related literature was limited despite the fact that the system dominates most practises worldwide. The relevant dimension of government system were found through library research based on conceptual analysis [Wheare (1953, 1964); Riker (1964); Davis (1978); Elazar (1982, 1987); Burgess (1993); Bowman & Kearney (1996); Shapiro (2006, 2009); Burgess (2006); King (1982); Watts (2010); Bucket (1999); Loughlin (2014)], theoretical [Wheare (1967); Livingston (1952); Riker (1964); Friedrich (1963, 1968)] and practices [Tiebout (1956); Musgrave (1959, 1999); Oates (1968, 1972, 1977, 1999, 2006); Burkhead & Miner (1971); Lijphart (1984); Ebel & Yilmaz, (2001, 2002); Filippov, Ordeshook & Shvetsova (2004); Yao, (2006); Swenden (2006); Regmi (2010); Loughlin (2014); Hooghe et al. (2016); United Nations Development Programme (2000-2011); International Monetary Fund

(1970-2020); World Bank (1997-2020)]. This study determined the relevant dimensions by finding the most frequently employed "terms" in related research and publications. Systematic analysis using *VOSviewer* also simplifies the procedure for determining these dimensions (see Figure 3.6).

To answer the question, *"What are the relevant dimensions for a typology of government systems?"* Table 3.3 shows five dimensions under the federalism variable, namely geography, sociology, politics, the legislature, and regional authority; and the fiscal dimension was under the decentralisation variable. Under all six (6) dimensions, there were 13 attributes in total (refer Table 3.2).

6.3.1.2   RQ2: How Many Groups Should be Constructed and How Should the Cases of Countries be Classified?

In step 2 of Kluge's (2000) rules, grouping the cases needs to be specified, meaning that $n=70$ countries' cases are required to be clustered. The question is, *"How many groups should be formed?"* In cluster analysis, the procedure for determining the cluster number was repeated until the ideal number was found. However, this study developed a hybrid approach incorporating hierarchical methods and two-step cluster analysis to discover the best value of k effectively (see Figure 3.8). Based on the agglomeration coefficient, the scale 5 in the dendrogram, and the two-step cluster analysis's summary review, the quality of the cluster number can be evaluated as poor, fair, or good. This procedure was applied using annual RAI index data (48 years), which was arranged by decade (1970s, 1980s, 1990s, 2000s, 2010s) and an average of 1970 to 2018 (refer to subtopic 4.3.1). All the tests show the number cluster for five

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decades, and the average indicates $k=4$ was "good". Therefore, $k=4$ was taken for the subsequent test.

The subsequent test utilised the k-means clustering method. By taking $k=4$ into the *k-means* test, the next question *"how should the countries' cases be classified?* ready to be answered. A k-means clustering approach was used to classify $n=70$ into 4 pre-determined groups. The data used for classification purposes involves the 10 attributes under regional authority dimension (subtopic 4.3.2 explains the initial procedure of countries classification). Initially, k-means was used to generate five decade-cluster centres (see Tables 4.22, 4.24, 4.26, 4.28, and 4.30). Clustering by decade significant to identify changes or trends in regional power caused by regionalism and decentralization. Figure 4.40 and Figure 4.41 show the changes, at the same time proving that there was an *"intermediate system"* (Loughlin, 2014) or so-called *"quasi-federation"* (Anderson, 2007b, 2010; Bagchi, 2003; Elazar, 1982; Loughlin, 2014; Watts, 1998) or *"semi-federal"* (Elaigwu, 2010; Visser, 2010), *"regionalized or regional systems"* (Schrijver, 2006; Swenden, 2006), *"regio-federal system"* (Baldi, 1999) or *"(de)centralized unitary and federation"* (Braun, 2000) occurred in the unitary system.

Next, k-means used to cluster n=70 using RAI data involving 48-year coverage result in four clusters (see Table 4.31). According to Table 4.32, Cluster 1 comprises 22 unitary countries without regional authorities. Cluster 2 includes 29 unitary states with limited regional authority. Cluster 3 consists of 12 unitary countries and 9 federation countries with regional authorities, excluding borrowing powers. Seven federation countries with full regional authority compose Cluster 4. Table 4.31 also detected the

existence of two government systems in Cluster 3. Given the fact that unitary and federation government systems are distinct, this study decided to divide them into a separate cluster. As depicted in Figure 4.43, Cluster 3 undergoes re-clustering, bringing the number of clusters to five (k=5). Table 6.1 displays five clusters for this research, five clusters by Lijphart (2012), and four clusters by Loughlin (2014). Lijphart (2012) conducted a quantitative analysis to categorised n=36 democratic countries into five categories using 65 years of federalism index coverage. In Loughlin's (2014) writing, he questions Lijphart's placement of France and Italy in the *"unitary and centralised"* group, whereas Loughlin places France and Italy in the cluster of *"regionalized unitary"*, which corresponds to the cluster finding of this study. According to Loughlin (2014), Lijphart classification may reflect the exclusion of contemporary developments and reforms in France and Italy from research conducted in the early 1980s.

This situation may be due to quantitative tests that were affected by the time span of the data involved. Lijphart coverage period was 1945 to 2010, while this study covers 1970 to 2018, making it different from the Loughlin's (2014) observation in the current period. If the z-score mean was placed on a continuum (with the lowest degree at the left end and the highest degree at the right end), a small score would place a country on the left side of the continuum, indicating a lack of regional authority. According to Figure 4.40, regional authority in France, Italy, and the Netherlands was significant beginning in the 1990s, despite the fact that the global trend (regionalism) began in the 1970s and 1980s (decentralization). Since Lijphart data as early as 1945 (45 years prior to the 1990s), the degree of federalism and decentralisation in France, Italy, and the Netherlands in the 1990s to 2010 (20 years) seems to be lower. In contrast to this study,

the coverage only began in 1970, and therefore the small score only encompassed two decades prior to the significant change in the 1990s in comparison to the higher authority and decentralised score in the subsequent three decades (1990s, 2000s, and 2010s). As a result of the clustering test, France, Italy, and the Netherlands have been placed in the *"Regionalized Unitary"* cluster as highlighted by Loughlin (2014). Examining the changes in regional authority and decentralisation over the past five decades (as depicted in Figures 4.40 and 4.41) reveals that the position of countries within the cluster has fluctuated substantially. In other words, if this study decides to grouping the country cases based on the last time span of data i.e., 2010s, the results will be more comparable to Loughlin (2014). However, this study chose to group the cases using the 48-year mean z-score (Table 6.1) instead of selecting the clusters in the most recent period (2010s), despite the fact that it accurately represents reality. This is because the cluster's latest position does not take into account the changes in regional power that happened in the last epoch.

As per Table 6.1, Bosnia and Herzegovina were clustered in *"decentralised federations"*. Whereas prior to 1995, Bosnia and Herzegovina were in fact in chaos due to "ethnic cleansing." The official economy of Bosnia and Herzegovina was suffered destruction during the 1992-1995 war. In November 1995, Bosnia and Herzegovina attained independence as a decentralised federation (Lampe, 2022). Rebuilding Bosnia's economy after the war was difficult but it is recovered by involvement of international finance. As a result, inflation rates decreased, exports increased and diversified, while gross domestic product (GDP) grew through the end of the 2000s (Lampe, 2022). Malaysia, was clustered in *"centralised federation",* some (Wheare, 1964; Taghavi-Dinani, 1982) called it "quasi-federalism". In the RAI data,

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Malaysia apparently had a high level of regional authority experience between the 1970s and 1990s. Malaysia moved up its ranking within the cluster because its mean z-score was better in these three decades than in the last period (the 2010s).

Table 6.1

Countries by Cluster According to Researchers

	Unitary And Centralised (1.0)	*Unitary And Decentralised (2.0)*	*Semifederal (3.0)*	*Federal And Centralised (4.0)*	*Federal And Decentralised (5.0)*
Lijphart (2012) 1945-2010 *n=36*	Bahamas Barbados Botswana Costa Rica France Greece Iceland Ireland Italy Jamaica Korea Luxembourg Malta Mauritius New Zealand Portugal Trinidad United Kingdom (before 1998) Uruguay	Denmark Finland, Japan Norway Sweden United Kingdom (after 1998)	Israel Netherland Spain, Belgium (before 1993)	Argentina Austria India	Australia Belgium (after 1993) Canada Germany Switzerland United States

	Centralised Unitary	*Decentralised Unitary*	*Regionalised Unitary*	*Federal*	
Loughlin (2014) *n=15*	Greece Ireland Luxembourg Portugal	Denmark Finland Netherland Sweden	Italy France Spain United Kingdom	Austria Belgium Germany	

	Centralized Unitary	*Decentralized Unitary*	*Regionalised Unitary*	*Centralized Federation*	*Decentralized Federation*
Research Finding (2022) 1970-2018 *n=70*	Estonia Iceland Luxembourg Trinidad and Tobago Costa Rica Guatemala Honduras El Salvador Bulgaria Latvia Albania Slovenia Lithuania Ireland Chile Nicaragua Mongolia	Greece Myanmar Portugal Slovakia South Korea Sri Lanka Ukraine Serbia Bolivia Czech Republic Papua New Guinea Ecuador Turkey Bangladesh Poland Croatia United Kingdom	Netherlands, France, Italy	Mexico Pakistan Brazil Argentina Russia Malaysia Austria Australia Switzerland	Spain Canada India United States Bosnia and Herzegovina Belgium Germany

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	Dominican	Romania
	Republic	Philippines
	Panama	Uruguay
	Paraguay	Hungary
	Finland	New Zealand
	Thailand.	Norway
		Indonesia
		Denmark
		Peru
		Sweden
		Colombia
		Japan

Notes. Information gathered from Lijphart (2012) and Loughlin (2014).

6.3.1.3 RQ3: What is the Relationship Between Constructed Types and Attributes?

As Kluge (2000) emphasised, social phenomena must not only be explained but also comprehended and interpreted in terms of meaningful relationships. In line with Kluge, Bailey (1994) highlighted those empirical regularities and correlations, as well as existing meaningful relationships, must be analysed with appropriate interpretations and constructed into understandable types. The only way to construct empirically based types is to combine empirical study with theoretical understanding (Kluge, 2000). This study conducted a correlation test to establish whether there is a meaningful relationship between the type (cluster) and the attribute, in accordance with the research question *"What is the relationship between the type constructed and attributes?"* Before performing the correlation test, the normality of the attributes was measured. Thus, Pearson's correlation was employed for normal distributions, whereas Spearman's correlation was utilised for non-parametric data (see Table 3.4 for results). Table 4.32 displays the correlation coefficient values between construct types and attributes under federalism and decentralisation.

As mentioned in the prior section, the constructed types have been constituted: Cluster 1 = *Centralised Unitary*; Cluster 2 = *Decentralised Unitary*; Cluster 3 = *Regionalised*

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Unitary; Cluster 4 = *Centralised Federation*; and Cluster 5 = *Decentralised Federation*. These five groups fall along a continuum that represents the degree of federalism and decentralisation. To the left was a more powerless territory, that is to say Cluster 1, *"Centralised Unitary"* occupies the position. On the other hand, Cluster 5 *"Decentralised Federation"* shows that regional grants of full authorities were at the right end. Since clusters can be more or less power, it is attainable to assess the significance, direction, and strength of their relationship with attributes.

Based on the value of the correlation coefficient, there is a very strong positive relationship between the cluster and the regional authority. While self-rule, institutional depth, policy scope, borrowing autonomy, and representation were found to have a strong positive relationship with groups. Attributes such as country size, number of chambers, shared rules, legislative power, executive power, fiscal responsibility, and constitutional change all have moderately positive relationships. Attributes involving language diversity, religious diversity, and loan control also have a positive, albeit weak, relationship. These meaningful relationships have actually been explained theoretically in the discussion of relevant dimensions.

Although it can be said that the correlation test shows that almost all attributes under federalism have a positive significant relationship with clusters, unfortunately, there is no significant relationship between clusters and linguistic diversity, democracy, or party system. If we review the arguments of federalism theories such as the Sociological Theory of Federalism and the Political Theory of Federalism, these modern theories explain how federalism works in terms of the diversity of society and the political system. Livingston (1952) states that federalism regulates societal

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diversity. By organising a region according to sociological, economic, social, and cultural order, minority communities can be protected and the quality of the society can be articulated.

In the modern political federalism theory, Riker (1964) mentioned federalism as a political organisation in which government activities are divided between the central and regional governments in such a way that each kind of government has some activities over which it has the last decision. Riker (1964) found that the structure of federalism is linked to the organisation of political parties. In other words, the degree of centralization in a federal system is proportional to the degree of centralization among political parties. For Cruz (2016), federalism is appropriate for democratic countries with a large population or a wide area. Only in a democracy can true federalism exist, since authoritarian governments would always insist on centralising power through a unitary system of government. If a democracy is to maintain legitimacy and public support, it must decentralise and delegate authority to elected officials (Cruz, 2016). Erk (2006) argues that federalism can be advantageous to democracy, while some argue that the federal system, which divides the common will, hampers the consolidation of large-scale democracy (Erk, 2006, p.107).

This study revealed the insignificance of linguistic diversity and political democracy in this inferential test; that these attributes were unable to differentiate the characteristics among clusters. In layman's terms, the degree of linguistic heterogeneity, democracy and party system are the same in all clusters; no distinguishable qualities can be identified.

6.3.1.4 RQ4: What Are the Characteristics of Each Constructed Types?

To answer this question, the dimensions and attributes were analysed one at a time to discover the cluster's distinctive characteristics, and then the cells in the typology table were labelled. Table 6.2 displays the characteristics of every cluster. On the basis of statistical tests, the dimensions of geography, sociology, legislative, regional authority, and fiscal decentralisation expose different characteristics of each cluster. However, the political dimension is incapable of distinguishing between clusters.

Table 6.2

Characteristic by Cluster

Cluster 1		Attribute	Characteristic
Centralised Unitary *n=22*	Federalism	Size of Country	*n=2* very small, *n=10* small, *n=7* medium, and *n=3* large-sized. Size in average was **small.**
		Ethnic Diversity	*n=13* homogeneous, and *n=9* heterogeneous ethnic diversity. ethnic diversity. This study considered ethnic diversity was **homogeneous.**
		Linguistic Diversity	comprises of *n=8* highly homogenous, *n=10* homogeneous and *n=4* heterogeneous linguistic diversity. In average, linguistic diversity was **homogeneous.**
		Religion Diversity	consists of *n=12* homogenous, *n=9* heterogeneous and *n=1* highly heterogeneous religion. In average, religion diversity was **homogeneous.**
		Democracies	*n=1* authoritarian, *n=3* hybrid regimes, *n=12* flawed democracies and *n=6* full democracies. This study considered this dimension as **various.**
		Party System	*n=21* multi-party systems and *n=1* non-party systems. This study labelled the majority, i.e., **multi-party.**
		Number Of Chambers	*n=15* unicameral and *n=7* bicameral. This study labelled the majority, namely **unicameral.**
		Self-Rule	regional governments in *n=22* countries had all negative z-score over institutional depth, policy scope, both autonomy over fiscal and borrowing and representation. In the self-rule score ranking, this cluster was the lowest (fifth). This study considered self-rule *M=3.9* was **very weak.**
		Shared Rules	n=22 countries had all negative z-score means over law making, executive control, both fiscal and borrowing control and constitutional reform. In the shared rules score ranking, this cluster was the lowest same rank with cluster 2. This study considered self-rule *M=3.9* was **very weak.**
	Decentralisation	Revenue	subnational revenue *Md =.78* was **very low.**
		Expenditure	subnational expenditure *M=3.00* was **high.**
		Vertical Imbalance	vertical imbalance *Md=5.19* was **very high.**
		Government Transfer	government transfer *Md=4.62* was **very high.**

Cluster 2		Attribute	Characteristic
Decentralised Unitary *n*=29	Federalism	Size of Country	*n*=5 small, the majority *n=17* medium and *n*=7 large-sized. Size in average was **medium.**
		Ethnic Diversity	*n*=6 highly homogeneous, the majority *n*=14 is homogeneous, *n*=5 heterogeneous and *n*=4 highly heterogeneous. This study considered ethnic diversity was **homogeneous.**
		Linguistic Diversity	*n*=13 highly homogenous, *n*=14 homogeneous, and *n*=1 heterogeneous and highly heterogeneous each. In average, linguistic diversity was **homogeneous.**
		Religion Diversity	had *n*=1 highly homogenous, *n*=15 homogenous, *n*=12 heterogeneous and *n*=1 highly heterogeneous religion. In average, religion diversity was **heterogeneous.**
		Democracies	*n*=1 authoritarian, *n*=4 hybrid regimes, *n*=16 flawed democracies and *n*=8 full democracies. This study considers this dimension as **various.**
		Party System	the majority of *n*=27 adopted a multi-party system, whereas only *n*=1 implemented a two-party and a dominant party, respectively. This study labelled the majority, i.e., **multi-party.**
		Number Of Chambers	*n*=18 unicameral and *n*=11 bicameral. This study labelled the majority, namely **unicameral.**
		Self-Rule	the regional level in *n*=29 countries were given little autonomy over representation and institutional depth. Unfortunately, policy scope and both autonomy over fiscal and borrowing, were all deficient as the z-score was negative. In the self-rule score ranking, this cluster was the fourth. This study considered self-rule *M*=8.8 was **weak.**
		Shared Rules	*n*=29 countries had all negative z-score means for law making, executive control, both fiscal and borrowing control and constitutional reform. Same as cluster 1 was the lowest rank. This study considered self-rule *M*=3.9 to be **very weak.**
	Decentralisation	Revenue	subnational revenue *Md* =1.07 was **low.**
		Expenditure	subnational expenditure *M*=3.48 was **high.**
		Vertical Imbalance	vertical imbalance *Md* =3.71 was **high.**
		Government Transfer	government transfer *Md*=4.37 was **very high.**

Cluster 3		Attribute	Characteristic
Regionalised Unitary *n*=3	Federalism	Size of Country	*n*=1 each of small, medium and large-sized. Size in average was **medium.**
		Ethnic Diversity	*n*=3 homogeneous. This study considers ethnic diversity was **homogeneous.**
		Linguistic Diversity	*n*=2 highly homogeneous and *n*=1 homogeneous. In average, linguistic diversity was **homogeneous.**
		Religion Diversity	*n*=1 was homogenous and *n*=2 was homogeneous religion. In average, religion diversity was **heterogeneous.**
		Democracies	*n*=2 flawed democracies and *n*=1 full democracies. This study considers this dimension as **various.**
		Party System	All *n*=3 implemented multi-party. This study labelled the majority, i.e., **multi-party.**
		Number Of Chambers	*All n*=3 bicameral. This study labelled the majority, i.e., **bicameral.**
		Self-Rule	Regional authorities in *n*=3 countries are given substantial balance in the areas of self-rule, especially representation, borrowing autonomy, institutional depth, and policy scope, with the exception of fiscal autonomy, which was fairly limited. In the self-rule score ranking, this cluster was the second. This study considered self-rule *M*=13.5 was **very strong.**
		Shared Rules	n=3 countries had positive z-score means over fiscal control and constitutional reform. While law making, executive control, and borrowing control were all deficient as the z-score was negative. This cluster was third rank which considered **weak.**
	Decentralisation	Revenue	subnational revenue *Md*=1.12 was **low.**
		Expenditure	subnational expenditure *M*=2.36 was **moderate.**
		Vertical Imbalance	vertical imbalance *Md*=2.20 was **moderate.**
		Government Transfer	government transfer *Md*=2.71 was **moderate**

Cluster 4		Attribute	Characteristic
Centralised Federation *n*=9	Federalism	Size of Country	*n*=2 small, *n*=1 medium, and *n*=3 each large and very large-sized. Size in average was **large.**
		Ethnic Diversity	*n*=4 each homogeneous and heterogeneous ethnic diversity and *n*=1 highly heterogeneous. This study considers ethnic diversity was **heterogeneous.**
		Linguistic Diversity	*n*=2 of both highly homogeneous and heterogeneous linguistic diversity and *n*=5 homogeneous linguistic diversity. In average, linguistic diversity was **homogeneous.**
		Religion Diversity	*n*=2 homogenous, *n*=6 heterogeneous and *n*=1 highly heterogeneous religion. In average, religion diversity was **heterogeneous.**
		Democracies	*n*=1 authoritarian, *n*=1 hybrid regimes, *n*=4 flawed democracies and *n*=3 full democracies. This study considered this dimension as **various.**
		Party System	adopted multi-party *n*=7 and dominant party *n*=2. This study labelled the majority namely **multi-party.**
		Number Of Chambers	*All n*=9 bicameral. This study labelled the majority namely **bicameral.**
		Self-Rule	The autonomy self-rule score of this cluster is comparable to cluster 3, with regional authorities in *n*=9 countries given an advantage in terms of policy scope, fiscal and borrowing autonomy as well as institutional depth, but relatively in the domain of representation. In the self-rule score ranking, this cluster was the third. This study considered self-rule *M*=13 was **strong.**
		Shared Rules	Five concepts of shared rules were positive score and comparable to cluster 5, with regional authorities in n=9 countries being granted control over all domains under shared rules. This cluster was second rank and considered **strong.**
	Decentralisation	Revenue	subnational revenue *Md*=2.73 was **moderate.**
		Expenditure	subnational expenditure *M*=3.55 was **high.**
		Vertical Imbalance	vertical imbalance *Md*=1.87 was **low.**
		Government Transfer	government transfer *Md*=2.73 was **moderate.**

Cluster 5		Attribute	Characteristic
Decentralised Federation *n*=7	Federalism	Size of Country	*n*=2 small, *n*=2 medium, and *n*=3 very large-sized. Size in average was **large.**
		Ethnic Diversity	the majority n=5 heterogeneous, whereas homogeneous and highly heterogeneous ethnic diversity are n=1 each. This study considered ethnic diversity was **heterogeneous.**
		Linguistic Diversity	*n*=5 homogeneous, and *n*=1 heterogeneous and highly heterogeneous, respectively. In average, linguistic diversity was **homogeneous.**
		Religion Diversity	*n*=2 homogeneous, predominately *n*=4 heterogenous, with *n*=1 highly heterogeneous religion. In average, religion diversity was **heterogeneous.**
		Democracies	*n*=1 hybrid regimes, *n*=3 flawed democracies and *n*=3 full democracies. This study considered this dimension as **various.**
		Party System	adopted multi-party n=6 and n=1 two party. This study labelled the majority, i.e., **multi-party.**
		Number Of Chambers	*All n*=7 bicameral. This study labelled the majority, i.e., **bicameral.**
		Self-Rule	the regional level in n=7 countries were granted extraordinary autonomy over all domains under self-rule. In the self-rule score ranking, this cluster was the first. This study considered self-rule *M*=18.3 was **very strong.**
		Shared Rules	the regional level in n=7 countries were granted all control under shared rules as the z-score means shows positive. This cluster was first rank and considered **strong.**
	Decentralisation	Revenue	subnational revenue *Md*=3.31 was **high.**
		Expenditure	subnational expenditure *M*=4.29 was **very high**.
		Vertical Imbalance	vertical imbalance *Md*=1.75 was **low.**
		Government Transfer	government transfer *Md*=1.85 was **low.**

Cluster 1 or centralized unitary states had a multilayer structure, but the central government retained absolute control. This cluster comprised regions whose existence was not predetermined by the constitution and whose powers were not constitutionally established. This cluster had the least amount of decentralization, which was defined as deconcentration, as it did not entail the transfer of real authority to lower layer units. In other words, neither self-rule nor shared rule had been granted at the regional level. Within this cluster, Luxembourg, for example, has subnational jurisdiction at three levels: districts, *cantons*, and municipalities. The districts are not given any general-purpose jurisdictions; instead, they are deconcentrated offices tasked with supervising municipalities. In comparison, Ireland had no regional governance structure until 1987. In the next seven years, Ireland established eight development regions and later granted them regional authority status. Nonetheless, neither the development region nor the regional authorities have taxing authority; they may only charge for their services. There is no direct or indirect representation of development regions, and each regional authority lacks the capacity to implement specific policies (Hooghe et al., 2016). Thailand, on the other hand, has *changwat* (provinces) and special regions (Bangkok and Pattaya). Unfortunately, c*hangwat,* Bangkok, and Pattaya have no fiscal autonomy. *Changwat* were deconcentrated over most of the twentieth century; similar to Bangkok and Pattaya, their fiscal positions over resource collection and revenue sharing are determined by the central government (Hooghe et al., 2016).

Cluster 2 or decentralized unitary was in the second continuum. This cluster of unitary countries features regional delegation types that are more flexible and decentralized. Delegation is somewhat perceived as a more extensive form of decentralization (Regmi et al., 2010). For example, in Japan, *todofuken* (prefectures at the intermediate

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level) have limited authority over their own institutions, local governments, police, residual powers, and hence are powerless to act. On the other hand, the central government established the level of subnational jurisdiction to ensure that the entire country always adhere to the same rules. Subnational powers are technically called *"agency-delegated functions",* which means that governors act as agents of the central government and are directly accountable to the relevant central ministry when they perform their duties (Hooghe et al., 2016).

South Korea, which was historically heavily centralized and ruled by the central government, experienced a power change in 1987. The 1987 Constitution eliminated unification prerequisites in favour of subnational autonomy and established a framework for subnational decentralization, although implementation was slow. Likewise, in Indonesia, the 1945 constitution structured this centralized unitary republic into four subnational territorial layers: *provinsi* (provinces), *kabupaten* (districts), *kota* (towns/subdistricts), and villages. In August 1950, a provisional constitution was approved to establish a decentralized unitary state. Throughout history, decentralization occurred, and subnational governments emerged in several parts of the islands. Sukarno, however, annulled the provisional constitution in 1957, and two years later, the 1945 constitution was reinstated. In 1974, a new law created a parallel structure of decentralized administration to correspond to independent governance. *Provinsi* could potentially create regional taxes under the New Order, but only on behalf of the central government. When it comes to taxation, debt, or borrowing, the central government is not compelled to consult with the *provinsi* (Hooghe et al., 2016).

The intermediate governance in the United Kingdom (UK) consisting of Scotland, Wales, and Northern Ireland, and nine regions in England is rather complex with its diverse system of unitary authorities, counties, districts, and boroughs. Since 1999, Scotland, Wales, and Northern Ireland have all had substantial policy responsibilities. Hooghe et al. (2016) classified Scotland, Wales, and Northern Ireland as autonomous (self-ruling) territories due to their varying degrees of devolution. In terms of self-rule, counties enjoyed autonomy over property tax rates between 1950 and 1983, but the central government capped the rate in 1984, and property taxes were phased out in 1990 in favour of community charges or a poll tax to fund the expenses of community services. However, these community charges grew unpopular, and the poll tax was replaced with a council tax in 1994. At the regional level, England relies on central government grants, while the London Authority retains autonomy over the rate of minor regional taxes and the ability to impose fees and charges, such as congestion charge. In comparison, Northern Ireland, Scotland, and Wales depend on the central government's unconditional block grants. In terms of shared rule, counties have no power sharing arrangements, whereas Scotland, Wales, Northern Ireland, London, and counties have no control over loans (Hooghe et al., 2016).

Cluster 3 was the third continuum, comprises a cluster of three unitary countries with a regional government that is self-rule (autonomous) but has minimal shared rules, particularly over borrowing control. For instance, Italy has evolved into a *quasi-federal* state with two distinct regional governance levels: *province* (provinces) and *regioni* (regions). Until 1974, provinces had little autonomy (self-rule) over their budgets, even though the central government tightened control over revenue on equity grounds. In 1993, the province received greater revenue autonomy over registered

vehicles, public land use, surcharges on electricity consumption, and additional fees on waste disposal (Hooghe et al., 2016). The province is also free to borrow from financial institutions, but their budgets must be submitted to the regional board of auditors. However, neither the *regioni* nor the *province* are frequently consulted regarding borrowing constraints. In the Netherlands, *provincies* (provinces) have some authority over small taxes and collect fees for water pollution, groundwater taxes, surcharges on television and radio licencing fees, and motor vehicle taxes. *Provincies* also permit borrowing to finance capital investment, and interest payments as well as depreciation must be accommodated within a balanced current budget. On the other hand, *provincies* still have no control over borrowing (Hooghe et al., 2016). France has two tiers of regional governance: *régions* (regions) and *départements* (departments), and an autonomous region, Corsica. *Départements* are both decentralised authorities and deconcentrated divisions. *Départements* may set the rates for self-employed tax, mining dues, town planning tax, electricity tax, gambling tax, and motor vehicle tax, whereas *régions* may determine self-employment and motor vehicle tax rates. Corsica, on the other hand, receives special development grants, which are unilaterally determined by the central government. In terms of shared rule, *régions* and *départements* have no power sharing, whereas Corsica does with limited power. *Régions, départements,* and Corsica do not have fiscal control and borrowing control (Hooghe et al., 2016).

In this cluster, regional entities are constitutionally recognised but have no role in constitutional reform and have no law-making power (France), or that power is not exclusive (Italy), and are without regional representation as is customary. Within constitutional guarantees, regional bodies with elected regional assemblies and

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governments are accountable for budget and policy decisions (France and Italy), and regions perform certain functions on behalf of the central government but not directly elected assemblies and governments. To some extent, the system shifted towards federalism, with power devolved to lower levels, yet the central government remains supreme over central judicial, fiscal, and economic structures. In other words, this cluster is less centralized than a rigid unitary, but it is more centralized than a federation. These clusters are termed *"regionalized"* or *"semi-federal"*.

Cluster 4 in the fourth continuum, a cluster of centralised federations known as *"quasi-federations"* in which power is concentrated in the central government and the constituent units are subordinate. Wheare (1963) claims that *quasi-federations* should not be considered federations even though there has been disagreement about whether to label them as genuine federations or not, although some countries are so-called federations in a provision of the constitution. In such circumstances, disproportionate powers occur when different constituent states possess dissimilar powers (although they have the same constitutional status). That is, it resembles an asymmetric federation. The concept of asymmetry expresses the extent to which component states do not share the conditions and concerns common to the federation system. The ideal asymmetrical federation system would be one composed of political units corresponding to differences in interest, character, and makeup that exist within the whole society (Burgess, 2006, p. 213). An asymmetry, however, occurs in a federation system where everyone must have a federation constitution and all the constituent units have the same formal status (as a state) either de facto or de jure. Russia and Malaysia both have this *quasi-federation* feature, which contributes to their asymmetrical nature.

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Cluster 5, the final cluster at the end of the continuum was a decentralised federation. This was the case of the United States federation established in Philadelphia (1787). As a prototype of a federation state, the United States constitution did not prevent an enormous growth in the central government's power in later years. However, it is one thing to transfer certain powers from the states to the new central government, thus transforming the United States from a confederacy into a federation. In the American Modern Federation of the United States (the classical model), central and sub-national governments are coordinated, not subordinates. Thus, the United States began as a genuine federation based on the concept of Wheare (1963), whereby power is shared in symmetry between the central government and constituent units in coordinate practices. Conversely, Canada and India began as *quasi-federations* as they retained the British parliamentary tradition. In fact, the British parliamentary government was designed for a unitary state, and not a federation. Hence, Canada took a federation (1867) and India (1950) assented to parliamentary federalism to mean the distribution of power through the constitution itself, which gives the central government powers for intervention, amendment, veto, and approval. Thus, this country is a long way from the principle of equal treatment for its constituent units, which is not even coordinated with the central government.

6.3.2   RO2: Performance Analysis

The fifth research question required time series data pertaining to performance. Initial analysis of all data was based on the relationship between dimensions/attributes and particular performance indicators. According to Tables 2.12 and 2.13, a significant relationship was found between federalism, decentralisation, and performance. Prior

to doing the inter-cluster analysis, this relationship test was also undertaken. Next, the box plot was used to analyse economic, fiscal, and governance performance in order to identify the best cluster. The ranking of the cluster can be determined using boxes and whiskers, median lines, minimum and maximum values, the lower quartile Q1 and the upper quartile Q3, and outliers.

6.3.2.1 RQ5: Which Groups in The Government System Promote the Best Performance?

From the inter-cluster analysis using a box plot, cluster 5 was found to have the best overall economic performance, as measured mostly by GDP rate, GDP per capita, and inflation rate, whereas cluster 4 had the lowest unemployment rate. Both federation clusters were graded on their overall economic performance. From the fiscal performance indicator, cluster 3 likewise had the greatest ratio of government debt to GDP, followed by clusters 5 and 4. In governance performance, cluster 3 dominates the rankings for each of the six indicators. Cluster 5 occupies the second-best position, followed by cluster 4. Cluster 2 is the next unitary cluster country, and cluster 1 comes in last.

By questioning which cluster is the best, its paves the way for theoretical debates when empirical findings indicate different. Theoretically and conceptually, federalism is in favour for governing in tier units and addressing social cleavages. Similar to Gerring et al. (2007), they claim that majority of academic and policy-related works on federalism often pro-federalism, but they are sceptical of its reasons and theoretical justification. For Gerring et al. (2007), federalism is only a dubious assumption; instead, they assert strong empirical evidence supporting unitarianism. Gerring et al.

(2007) undertook a series of cross-country empirical studies of the effects of unitary systems on fifteen indicators of political, economic, and human development over the course of several decades. They discovered that a unitary government that has existed for a long period can result in superior governance (Gerring et al., 2007). Gerring's et al. assertion was real, as the governance performance indicators prove that cluster 3 regionalised unitary outranks cluster 5 decentralised federation.

According to Gerring et al., rivalry between subnational governments, fiscal federalism, many veto points, accountability, and large government cannot ensure that a federal system can deliver high-quality global governance. On the other hand, local government competition impairs the quality of public policy and disrupts bureaucratic efficiency. In addition, fiscal federalism is difficult to implement in practise, and the veto point hinders the flexibility and strength of government areas. Democratic accountability can lead to better government when local accountability procedures are clear and centralised, and not left to the ties between minor regional units and individual politicians.

Gerring's et al. description of the situation most closely resembles the characteristics of cluster 4. Cluster 4, also known as a quasi-federation, has a lesser potential for self-rule than cluster 3. The regional authorities of cluster 3 have given significant balance in the realm of self-rule, particularly in terms of representation, autonomy, institutional depth, and policy scope. Studies conducted by Kapoor and Ravi (2009), Lecuna (2012), Fan, Lin, and Treisman (2009), and Ivanyna and Shah (2011) demonstrate that a country's potential for self-government and strong decentralisation decreases

corruption. This clearly defines the situation throughout cluster 5, which is highly autonomous and decentralised and ranks second in terms of governance performance.

6.4   Contribution of Study

This study made significant contributions to the field of federalism in the areas of organised concept, method of typology construction, and government system typology.

6.4.1   Federalism concept

Federalism has been a popular buzzword for the past two centuries. This phrase has already been considered from a variety of perspectives, including geography and environmental studies, history, law, politics, institutional, sociology, and economics, among others. This phrase does not belong to a specific field of study; however, it is somewhat skewed toward the study of political institutions; therefore, the terminology has been interpreted and changed according to their respective themes (Erk, 2006, p. 105). Inevitable is the heterogeneity of federalism within the field. Flexibility (or adaptation) is the greatest strength of federalism (both the federal concept and the institutions and processes that arise from it), but it also makes federalism difficult to articulate satisfactorily.

Given that federalism is context-based and that context impacts meaning, this study compiles scholars' popular concepts from a variety of viewpoints. Thus, this study determined that the concept of federalism originated as a normative concept, an institutional structure, a constitution, and a political consensus. This may be a very

minimal contribution, but at least the concept of federalism versus federation can be applied in the right context and setting.

6.4.2   Typology Construct Method

In political science, a construction of type or typology was among the most popular compared to other fields, albeit the construction was traditional and qualitatively set. Qualitative typology offers great concepts for new categorization studies, yet in reality it is tough to do. This study has had a limited capacity to generate traditional and qualitative typologies; thus, it also pursues alternatives from a quantitative standpoint. Mixed methods are nothing new in political science (see Table 3.1). They collect primary data and analyse it using correlation. Correlation was also used as part of the typology construction in this study. However, the primary method of hybrid clustering that was employed quantitatively was highly intriguing and methodical. The procedure for constructing a typology, which was discussed in subtopic 3.4, may be valuable and crucial as a reference for similar studies in the future.

6.4.3   A Typology and Performance

This research contributes fundamental knowledge but crucial for gaining an understanding of how a government system functions based on geopolitics, sociology, and legislative framework, which led to changes in the distribution of power at the meso-level all throughout 1980s. This scenario being illustrated using a typology of government systems (see Table 6.3).

Table 6.3

The Typology of Government System and Performances

Dimensions	Attributes	Unitary			Federation	
		Centralized	Decentralized	Regionalized	Centralized	Decentralized
		Estonia, Iceland, Luxembourg, Trinidad and Tobago, Costa Rica, Guatemala, Honduras, El Salvador, Bulgaria, Latvia, Albania, Slovenia, Lithuania, Ireland, Chile, Nicaragua, Mongolia, Dominican Republic, Panama, Paraguay, Finland, Thailand.	Greece, Myanmar, Portugal, Slovakia, South Korea, Sri Lanka, Ukraine, Serbia, Bolivia, Czech Republic, Papua New Guinea, Ecuador, Turkey, Bangladesh, Poland, Croatia, United Kingdom, Romania, Philippines, Uruguay, Hungary, New Zealand, Norway, Indonesia, Denmark, Peru, Sweden, Colombia, Japan.	Netherlands, France, Italy	Mexico, Pakistan, Brazil, Argentina, Russia, Malaysia, Austria, Australia, Switzerland	Spain, Canada, India, United States of America, Bosnia and Herzegovina, Belgium, Germany
Geography	Size of country	Small	Medium	Medium	Large	Large
Sociological	Ethnic diversity	Homogeneous	Homogeneous	Homogeneous	Heterogeneous	Heterogeneous
	Linguistic diversity	Homogeneous	Homogeneous	Homogeneous	Homogeneous	Homogeneous
	Religious diversity	Homogeneous	Heterogeneous	Heterogeneous	Heterogeneous	Heterogeneous
Political	Democracies	Various	Various	Various	Various	Various
	Party system	Multi-Party	Multi-Party	Multi-Party	Multi-Party	Multi-Party
Legislature	Number of chambers	Unicameral	Unicameral	Bicameral	Bicameral	Bicameral
Regional Authority	Self-rule	Very Weak	Weak	Very Strong	Strong	Very Strong
	Shared Rule	Very Weak	Very Weak	Weak	Strong	Strong
Fiscal Decentralisation	Subnational Revenue	Very Low	Low	Low	Moderate	High
	Subnational Expenditure	High	High	Moderate	High	Very High
	Vertical imbalance	Very High	High	Moderate	Low	Low
	Government Transfer	Very High	Very High	Moderate	Moderate	Low
Economics	GDP rate	Highest	Forth	Lowest	Third	Second
	GDP per capita	Lowest	Forth	Highest	Third	Second
	Unemployment	Second	Forth	Third	Lowest	Highest
	Inflation	Highest	Second	Fourth	Third	Lowest
Fiscal	Government Debt/GDP	Lowest	Fourth	Highest	Third	Second
Governance	Voice and Accountability	Third	Fourth	Highest	Lowest	Second
	Political Stability	Third	Lowest	Highest	Fourth	Second
	Government Effectiveness	Lowest	Fourth	Highest	Third	Second
	Regulatory Quality	Third	Lowest	Highest	Forth	Second
	Rule of Law	Forth	Lowest	Highest	Third	Second
	Control of Corruption	Lowest	Forth	Highest	Third	Second

6.5   Recapitulation of Study

This study begins with the ambiguity around the core concept of government, which differs from its practise in various countries. The unitary versus federated dichotomy appears to be clear and straightforward. Nonetheless, there remained an issue with empirical investigation. The process of federalization among unitary nations necessitates the reclassification of countries.

During the investigation into pertinent dimensions, the scope of the search was limited to aspects associated with the unitary-federal government system, regional power distribution, regionalization, and decentralisation. It is widely held that the concept and philosophy of federalism are essential to comprehending the structure of a government system. Federalism is multidimensional; hence, there are numerous potential dimensions to consider.   Finally, this study found its connection to geography, sociology, politics, law, and the distribution of power at lower levels through regionalisation and decentralisation studies. Regarding the dimension that has been selected and tested, the theory explains the relationship between the dimension/attribute and the government system. However, after the test was done, there were characteristics of a particular dimension that existed in all the clusters, so that dimension could not be proved to be special to explain the differences.

Several dimensions or attributes, such as country size, chamber, self-rule, and shared rule, and four fiscal decentralisation attributes, would illustrate distinctions between clusters. All of these attributes demonstrate the characteristics of clusters 1 through cluster 5 along a continuum that becomes larger and more powerful as they move to the right and vice versa. In terms of country size, cluster 1 is smaller than cluster 5,

which is larger. Likewise, regional authority and fiscal decentralisation show the same way. Rightwards, or for a larger number of clusters, means more progressive in power. This subject is not unusual; it is even mentioned in discussions of concepts and theories (relevant dimension subtopic). However, this study not only proves the prior knowledge; in fact, via the scientific cluster method, it provides a greater number of country cases to be grouped, and there were a number of countries that fell into unexpected groupings.

The development of a typology is the outcome of analysing dimensions and attributes. Throughout statistical testing, all dimensions and attributes of cluster character were utilized. First, the ANOVA and Kruskal-Wallis tests were employed to assess whether or not there were differences in group characteristics. Nevertheless, the real characteristics of the cluster can only be determined by descriptive analysis, and, of course, that takes into account both theoretical and practical knowledge. Even though the descriptive analysis shows that a cluster has a wide range of characteristics (shown by the minimum and maximum range), this study takes into account the mean or median distribution, that gives an idea of how the characteristics of a cluster can be labelled.

Lancaster and Hicks (2000) and Biela and Hennl (2010) demonstrate a positive relationship between federalism and decentralisation and economic growth. This study finding was in line, inter-clusters analysis reveals that the cluster 5 dominates economic performance. Analysis of inter-cluster performance also reveals that clusters with high self-governance and decentralisation capabilities predominate in the top rankings. This result was derived from the records of clusters 3 and 5. Cluster 3 and

cluster 4 were the same cluster in the first stage, but once the two are separated, major disparities become apparent. Cluster 3 possesses greater autonomy than cluster 4. Cluster 4 was given superior shared rules compared to cluster 3, which has no say in central-level joint decision-making. Observations indicate that autonomy is more advantageous to the region than shared rule.

6.6   Limitations and Suggestion for Future Research

The construction of a typology demands an in-depth knowledge of the subject of study. As it cannot rely solely on statistical testing, the development of a successful typology will be influenced by a robust mastery of knowledge. To acquire information, however, requires a great deal of time, effort, and money. Federalism, difficult to grasp as its concept and theory alone are ambiguous and confusing. Despite the absence of a uniform concept and theory, federalism however is flexible and adaptable. Consequently, federalism discourse pertaining to the government system becomes more comprehensive, universal, and legible among a variety of perspectives.

Due to the limitations of in-depth knowledge, this research offers six analytical dimensions. It would certainly be better if there were other dimensions that could be explored in depth such as the governance in both system government, the intergovernmental administration, and others related. Existing dimensions can also be expanded through the exploration of other attributes. In the political dimension for example, if attributes such as the form of elections, freedom of speech, and political conflicts can be explored and categorised, it will be significantly more engaging and influential.

In addition to knowledge limitations, this study also experienced data restrictions. Dimensions and attributes primarily based on data availability because lack of data prevents a good investigation. Therefore, the study's reliance on secondary data may be modified through suitable primary methodologies. There is critical data necessary to enhance the typology, such as data index of political decentralisation and administrative decentralisation. The World Bank and the International Monetary Fund provide government financial statistical data; therefore, only fiscal decentralisation can be calculated and analysed for this research.

6.7   Conclusion

At the outset, it is quite difficult to conduct such studies. The research process becomes more challenging and fruitless without the background and expertise gained by developing a typology. However, one must be patient and give the process of learning its due diligence. Therefore, each impasse and difficulty can be resolved gradually. This study has reached its end, but there is room for growth in future study sheets. This typology of government system is not much, but it is good to take advantage of it.

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