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Ali Akbar Tajmazinani

Worlds of welfare within the Muslim world

A system approach to the analysis of welfare arrangements in Muslim societies





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Abstract

Although there have been efforts to illustrate elements of a potential 'Islamic welfare state', there is no academic work dedicated to developing a typology of welfare regimes in Muslim majority countries. The present research is starting with identifying existing patterns of welfare provision among Muslim societies by using available global indicators with collected valid data as a starting point. The main purpose of the research is to explore if there is a unified and homogenous pattern of welfare system within the so-called Muslim World or there are multiple and diverse worlds of welfare provision. Hierarchical and k-means cluster analysis (KCA) were employed to work out a typology of welfare systems among the Muslim majority countries. A welfare system approach was used to select variables for data gathering and analysis. While input, process, output and outcome variables were used to develop a typology of welfare systems in countries under study, context variables were utilized to compare the policy environments which have impacts on the functioning of a welfare system. Findings of the present research showed that a vast diversity of experiences could be witnessed among Muslim majority countries with regard to various aspects of the welfare system. A combination of contextual features with input, output and outcome attributes forms seven types of welfare arrangements: The 'Rentier social non-democracy system', the 'Equality-oriented proto-welfare system', the 'Less efficient Proto-welfare system', the 'Fragile informal welfare system', the 'Failing informal welfare system', the 'Failing informal materially-equal system', and the 'Failed ill-fare system'. The paper concludes with discussing the main features of these welfare systems and comparing them with existing typologies in the literature as well as some implications for future research in this field.



7usammenfassung

Obwohl es Bemühungen gegeben hat, Elemente eines potenziellen "islamischen Wohlfahrtsstaates" zu veranschaulichen, fehlt es an Forschung, die sich der Entwicklung einer Typologie von Wohlfahrtssystemen in Ländern mit muslimischer Bevölkerungsmehrheit widmet. Die vorliegende Forschungsarbeit beginnt mit der Identifizierung bestehender Muster der Wohlfahrtsversorgung in muslimischen Gesellschaften, indem sie verfügbare globale Indikatoren mit erhobenen gültigen Daten als Ausgangspunkt verwendet. Das Ziel der Forschungsarbeit besteht darin, zu untersuchen, ob es ein einheitliches und homogenes Muster des Wohlfahrtssystems in der so genannten muslimischen Welt gibt oder ob mehrere und unterschiedliche Welten von Wohlfahrtssystemen existieren. Hierarchische und k-means Cluster-Analysen (KCA) wurden eingesetzt, um eine Typologie der Wohlfahrtssysteme in den Ländern mit muslimischer Bevölkerungsmehrheit zu erstellen. Zur Auswahl der Variablen für die Datenerfassung und -analyse wurde ein Wohlfahrtssystem-Ansatz verwendet. Während Input-, Prozess-, Output- und Ergebnisvariablen verwendet wurden, um eine Typologie der Wohlfahrtssysteme in den untersuchten Ländern zu entwickeln, wurden Kontextvariablen verwendet, um das politische Umfeld zu vergleichen, das sich auf das Funktionieren eines Wohlfahrtssystems auswirkt. Die Ergebnisse der vorliegenden Untersuchung zeigen, dass in Ländern mit muslimischer Bevölkerungsmehrheit eine gro-Be Vielfalt in Bezug auf verschiedene Aspekte des Wohlfahrtssystems zu beobachten ist. Eine Kombination von Kontextmerkmalen mit Input-, Output- und Outcome-Attributen bildet sieben Typen von Wohlfahrtsarrangements: Das "Rentier-System der sozialen Nicht-Demokratie", das "gleichheitsorientierte Proto-Wohlfahrtssystem", das "weniger effiziente Proto-Wohlfahrtssystem", das "fragile informelle Wohlfahrtssystem", das "scheiternde informelle Wohlfahrtssystem", das "scheiternde informelle System der materiellen Gleichheit" und das "gescheiterte ill-fare System". Abschließend werden die Hauptmerkmale dieser Wohlfahrtssysteme erörtert und mit den in der Literatur vorhandenen Typologien verglichen sowie einige Schlussfolgerungen für die künftige Forschung in diesem Bereich gezogen.

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1. Introduction

It is now more than three decades since Esping-Andersen's (1990) pioneering work on classifying various welfare regimes across the globe was published and inspired numerous academic works on the topic. Despite its significance in enriching welfare state literature and research, his typology has been criticized on various grounds. Geographical coverage, classification criteria, representativeness of the three welfare state types, gender issues, as well as empirical and methodological considerations are among the most prominent lines of criticism. Numerous attempts have been undertaken to add other regime types such as the 'Southern European' regime (Leibfried, 1992), to extend the original typology to other regions and countries in the global south (e.g. Wood & Gough, 2006), as well as incorporating other criteria like gender (Siaroff, 1994), welfare governance (Korpi & Palme, 1998), welfare inputs or outcomes (Obinger & Wagschal, 2001), as well as contextual variables.

Compared to other variables, religion has not been often dealt with as a major criterion for welfare regime studies. Manow and Kersbergen (2009) criticize Esping-Andersen's welfare regimes approach as well as the power resources approach for ignoring the precise role played by religion in the process of welfare state development in western societies. In their view, "the differences between Catholicism and Protestantism and between the major variants of Protestantism are very important for an accurate understanding of the different directions nations went in their social policy development." Although focusing on gender aspects to develop a new typology, Siaroff (1994) explicitly uses a religious terminology to distinguish between an Advanced Christian-democratic, a Protestant liberal, a Protestant social-democratic and a Late female mobilization welfare regime which connotes the strong role of religion in this regard.

Religion has played various roles with regard to welfare systems in Muslim societies. Traditionally, religious communities have acted as a major provider of welfare in Muslim societies. For example, the Waqf tradition (religious endowments) has been widely used in all these societies to build enduring public facilities (like schools, clinics, foster homes, shelters, water supply, etc.) and provide related welfare services on a universal or selective basis to the public. Moreover, traditions like Zakat (religious tax) and Sadaga (voluntary charity) have always been used to provide continuous or one-off relief to the poor by individual Muslims as well as collective religious entities in various Muslim societies (Jawad & Jawad, 2021). Many movements in various Muslim countries (like the Muslim Brotherhood in Egypt, the Gülen movement in Türkiye, the Muhammadiyah and Nahdlatul Ulama movements in Indonesia, etc.) have utilized these religious welfare potentials to mobilize the populations towards their goals. Various patterns of welfare-related actions by these collective religious entities could be identified which they perform alongside, together with, or against the state (Saeidnia & Ruiz de Elvira, 2021).

Although many modern welfare institutions have been established in Muslim countries as a result of policy diffusion and inspiration by the 'welfare state' models, specific reference to Islamic teachings have been made in some countries to legitimize those institutions or mechanisms. The cases of new Constitutions in post-independence Pakistan and post-Islamic Revolution Iran could be mentioned as some examples. More specifically, the Islamic Revolution in Iran resulted in the establishment of several welfare foundations (or Bonyads, mainly parallel to existing governmental welfare entities) by a direct decree of the religious leader of the Revolution (Ayatollah Khomeini), including the 'Imam Khomeini Relief Foundation', the 'Construction Jihad', the 'Martyrs Foundation', the 'Islamic Revolution Housing Foundation' and the 'Foundation of the Oppressed and Disabled' (Taimazinani, 2021). Incorporation of religious traditions like Zakat as a state institution in the new social protection system of some countries like Saudi Arabia or Sudan is also notable when thinking about the role of religion in social welfare in Muslim countries (Bilo & Machado, 2021).

While there is scattered literature on the role of religion with regard to social welfare in Muslim societies, one encounters a considerable gap in

the literature when it comes to the issue of welfare regime typologies of Muslim countries. Although there have been efforts to illustrate elements of a potential 'Islamic welfare state' (e.g. Tajmazinani & Mahdavi Mazinani, 2021) as well as comparing the existing characteristics of the welfare system in a given Muslim country to some features of social welfare in Islamic teachings (Chawla, 2017), there is no academic work dedicated to developing a typology of welfare regimes in Muslim majority countries. On a regional level and focusing on social welfare arrangements in South East Asian Muslim societies, Yuda (2020) employs a combined political-economic and cultural approach to explore how Islamic welfare regime notion evolves in Brunei Darussalam, Malaysia and Indonesia. His main criterion for comparing these countries is the interconnection between four levels of Islamic welfare actors (state, market, community and household/relatives) in providing social welfare.

Although a throughout study of welfare arrangements in all Muslim majority countries requires considerable first-hand comparative research work including the development of specific indicators based on Islamic welfare concepts and practices, the present study attempts to undertake some initial steps by using existing validated data. In doing so, the following questions are addressed in this study:

- » Which kinds of welfare systems could be identified in Muslim majority countries?
- » What are the main features of existing welfare systems among the Muslim majority countries?
- » What are the main aspects of variation and unity among the Muslim majority countries regarding the welfare system?

2. THE SAMPLE: MUSLIM SOCIETIES

Muslim societies are sometimes studied under such labels as the 'Muslim World' or the 'Islamic World', although these concepts also include Muslim communities living in non-Muslim societies. These labels usually connote a homogeneous and

unified image of Muslim societies. Tajmazinani (2021) has discussed various approaches to the conceptualization of the Islamic/ Muslim world: The Islamist discourse which adopts this concept to portray a unified Ummah or a glorious civilization in the past and calls for a return to it or to construct a new Islamic civilization based on its legacy (e.g. Choudhury, 2010); The anti-Islamist discourse which uses the same concept to illustrate a unified enemy for the non-Muslim world, especially 'The West', that threatens the modern civilization (e.g. Cooper & Yue, 2008); The social science approach which considers some value in categorizing Muslim groups, entities, communities, and societies as a distinct sociological reality for descriptive and explanatory purposes (e.g. Salehi, 2014); and the opposing social science approach which refuses to do so based on the argument that these kinds of differentiations between human societies may tend to portray ordinary social and cultural differences as essential and unresolvable disparities (e.g. Aydin, 2017).

Given the importance of culture in social policy and the role of religion as a main element of culture, it is of notable explanatory benefit to study welfare arrangements in relation to this element. One could agree with Aydin (ibid.) that Muslim societies share many features with non-Muslim societies in various aspects (including with regard to modern social policy and welfare, which mainly originated and were imported from outside these societies) and therefore could be studied under regional and global comparative research programs. However, one could also adopt an endogenous approach in researching social welfare in Muslim societies to shed light on existing patterns of welfare provision and arrangements for descriptive or explanatory objectives without claiming essential natures for these patterns. To achieve this goal, it is necessary to adopt specific theories, concepts, and indicators which are sensitive to the components of Islamic culture with regard to social policy and welfare (see for example, Tajmazinani & Mahdavi Mazinani, 2021). However, and in the absence of valid data on such indicators, the current research begins by identifying existing welfare provision in Muslim societies by using available global indicators with





% of population Muslim

90-100
80-90
65-80
50-65
30-50
15-30
7-15
1-7

Figure 1 - World Muslim population by percentage (1,976,000,000)

Source: "Religious Composition by Country, in Percentages'". Pew Research. https://en.wikipedia.org/wiki/Islam_by_country#cite_note-1

collected valid data as a starting point in such a research program. The main purpose of the research is to explore whether there is a unified and homogenous pattern of welfare systems within the so-called Muslim World or whether there are multiple and diverse worlds of welfare provision.

There are 57 member states in the Organization of Islamic Cooperation (OIC), but Muslims also live in many other countries around the world (see figure 1). Out of this number, 48 countries have Muslim majority populations (see Table A1 in the Annex). The current research focuses on those countries with Muslim majority populations, although lack of data on a minimum number of indicators (see the methodology section) led to the inclusion of 38 countries in the final analysis.

3. LOCATING MUSLIM SOCIETIES WITHIN THE WELFARE REGIME LITERATURE

Most of the initial typologies of welfare regimes in the first decade after Esping-Anderson's (1990) groundbreaking work did not include any of the Muslim majority countries since they were mainly limited to the industrialized and more developed economies of the world. Gough et al. (1997) and

Gough (2001) just included Türkiye in their classification of social assistance regimes and located it under the 'rudimentary assistance' or 'minimal extent, exclusive, very low benefits' regime.

The outstanding research project on 'Social Policy in Development Contexts' by Ian Gough and his colleagues at the University of Bath, which was reflected in several publications including the book Insecurity and Welfare Regimes in Asia, Africa, and Latin America (Gough et al., 2004), was one of the first global initiatives that went beyond the OECD countries and included several Muslim majority countries as will be specified. Their typology (see also Wood & Gough, 2006) included four main categories: 1) Actual or potential welfare state regimes (Uzbekistan, Algeria, Tunisia), 2) more effective informal security regimes (Albania, Indonesia, Iran, Lebanon, Morocco, Syria, Jordan), 3) less effective informal security regimes (Bangladesh, Pakistan), and 4) externally dependent insecurity regimes (Burkina Faso, Chad, Mali, Senegal). It is noteworthy that none of the oil-rich Arab countries of the Persian Gulf are covered in this research.

In the same way, Abu Sharkh and Gough (2010) included a considerable number of Muslim majority countries from different regions of the world in their typology. Their cluster analysis of

data at two points in time (1990 and 2000) led to nine clusters of countries which they then grouped into five types. These types and their membership for 2000 are as follows: 1) Proto-welfare state regimes (Tunisia), 2) successful informal security regimes (Iran, Kazakhstan, Malaysia, Tajikistan, Türkiye), 3) failing informal security regimes: high illiteracy (Bangladesh, Pakistan), 4) failing informal security regimes: high morbidity, and 5) insecurity regimes (Mali, Senegal). It is not clear from their paper whether Morocco and Indonesia fall under type 2 or type 3, while again the oil-rich Arab countries of the Persian Gulf are absent from their research.

A recent typology by Yorük et al. (2022) also covers some Muslim countries. According to his typology, there are four types of welfare regimes which include: 1) Institutional, 2) neoliberal, 3) populist, and 4) residual. While no country is assigned to the first category, Indonesia and Malaysia are considered neoliberal, Türkiye is populist, whereas Bangladesh and Pakistan fall under the residual type. Another up-to-date typology stems from Hasanaj (2022), who classifies 150 countries around the world (covering most Muslim majority countries) in three categories as follows: Proactive welfare states (with a greater welfare commitment/response to new social risks than to old social risks), reactive welfare states (that perform comparatively better on problems relating to old social risks), and dual welfare states (nations with almost equal levels of commitment/response to both old and new social risks). The first category includes all of the countries in the four types of welfare regimes identified in classic works (liberal, conservative, social democratic, and Latin). With regard to Muslim majority countries, Türkiye, Kazakhstan, Iran, and Albania fall under the proactive type, while countries like Bangladesh, Burkina Faso, Chad, Djibouti, Gambia, Guinea, Mali, Mauritania, Niger, Nigeria, Pakistan, Senegal, Sierra Leone, Sudan, and Yemen are categorized as reactive. Moreover, countries such as Algeria, Azerbaijan, Bahrain, Brunei, Egypt, Indonesia, Jordan, Kuwait, Kyrgyzstan, Lebanon, Malaysia, Morocco, Oman, Qatar, Saudi Arabia, Tajikistan, and Tunisia are regarded as hybrid or dual welfare states.

Apart from typologies which classify welfare regimes in various countries and locate Muslim societies within those types or categories, there are a number of studies which focus exclusively on a specific region and label the welfare regimes of countries in those regions under a certain name which could explain their features in the best way according to their research findings. World regions with Muslim majority countries include Middle East and North Africa (MENA), Sub-Saharan Africa, Southeastern Europe (more specifically, Western Balkans), Caucasus and Central Asia (Former USSR), South Asia, and South East Asia. Some of the main research works with regard to these regions will be presented below with specific reference to Muslim societies.

Karshenas et al. (2014) call the welfare arrangements dominating in the countries of the MENA region an 'authoritarian corporatist' social welfare regime. Under this model, most countries in the region provide welfare services which are mainly directed at male public sector employees and their families. The model had a nation-building agenda (not a citizen rights or developmental mandate) and is characterized by top-down decision-making as well as a conservative gender ideology. While referring to the 'rentier' and 'distributive' image of the welfare system in MENA countries after World War II (based on existing literature) which directed attempts towards nation-building, Jawad (2022) considers the concept inadequate both empirically and analytically. In fact, her own culturally sensitive analysis of social policy (Jawad 2009) suggests that non-state actors, especially in the form of religious movements, have a large stake in the social welfare settlement in MENA. Overall, she argues that these states demonstrate elements of residualism and corporatism with emerging tendencies towards adopting a neo-liberal stance.

Cerami (2013) selects the label of 'permanent emergency welfare regime' for welfare arrangements in Sub-Saharan Africa. The forced residual approach to economic and social policymaking which concentrates on 'basic services and provisions' for the populations in urgent need has resulted in the establishment of welfare regimes that provide coverage for only a few fortunate people,





Table 1. Major typologies of welfare regimes in relation to Muslim majority countries

Researcher	Classification criteria	Туроlоду	Inclusion of Muslim majority countries
Esping-Andersen (1990)	» Decommodification » Stratification	Liberal, Conservative, Social democratic	
Leibfried (1992)	» Poverty, social insurance and poverty policy	Anglo-Saxon, Bismarck, Scandinavian, Latin Rim	
Castles & Mitchell (1993)	» Welfare expenditure» Benefit equality» Taxes	Liberal, Conservative, Non- Right Hegemony, Radical	
Siaroff (1994)	 » Family welfare orientation » Female work desirability » Extent of family benefits being paid to women 	Protestant Liberal, Advanced Christian-democratic, Protestant Social-democratic, Late Female Mobilization	
Ferrera (1996)	 » Rules of access (eligibility) » Benefit formulae » Financing regulations » Organizational-managerial arrangements 	Anglo-Saxon, Bismarckian, Scandinavian, Southern	
Bonoli (1997)	» Bismarck and Beveridge model» Level of welfare state expenditure	British, Continental, Nordic, Southern	
Korpi & Palme (1998)	» Basis for entitlement» Benefit principle» Governance of social insurance program	Basic Security, Corporatist, Encompassing Targeted	
Gough et al. (1997) and Gough (2001)	» Dimensions of social assistance systems: extent, program structure, generosity	Selective welfare systems, The public assistance state, Welfare states with integrated safety nets, Dual social assistance, Citizenship-based but residual assistance, Rudimentary assistance, Decentralized discretionary relief, Centralized discretionary relief	Türkiye (Rudimentary assistance) Minimal extent, exclusive, very low benefits (in 2001 version)
Obinger and Wagschal (2001)	» Socio-economic variables» Political-institutional variables» Outcome variables	Anglo-Saxon, Continental, Scandinavian, Periphery	
Saint-Arnaud and Bernard (2003)	 » Characteristics of governmental programs » Social situation variables » Political participation variables 	Liberal, Social democratic, Conservative, Latin	

Researcher	Researcher Classification criteria		Inclusion of Muslim majority countries		
Gough et al. (2004) and Wood & Gough (2006)	» Human development index» Public spending» International flows of aid	1) Actual or potential welfare state regimes, 2) More effective informal security regimes, 3) Less effective informal security regimes, 4) Externally dependent insecurity regimes	1) Uzbekistan, Algeria, Tunisia, 2) Albania, Indonesia, Iran, Lebanon, Morocco, Syria, Jordan, 3) Bangladesh, Pakistan, 4) Burkina Faso, Chad, Mali, Senegal		
Abu Sharkh & Gough (2010)	» The welfare mix» Welfare outcomes	1) Proto-welfare state regimes, 2) Successful informal security regime, 3) Failing informal security regimes: high illiteracy, 4) Failing informal security regimes: high morbidity, 5) Insecurity regimes	1) Tunisia, 2) Iran, Kazakhstan, Malaysia, Tajikistan, Türkiye, 2?) Morocco, ?2 or 3) Indonesia, 3) Bangladesh, Pakistan, 5) Mali, Senegal		
Böger & Öktem (2018)	 » Social rights (generosity of social rights, individualization of social rights) » Social stratification (corporatism, health privatization, universalism) 	1) Welfare states, 2) Proto- welfare states, 3) Non-welfare states	Türkiye (Proto-welfare state)		
Yorük et al. (2022)	» Welfare generosity» Welfare efforts	1) Institutional, 2) Neoliberal, 3) Populist, 4) Residual	2) Indonesia, Malaysia, 3) Türkiye, 4) Bangladesh, Pakistan		
Hasanaj (2022)	» Concentration» Configuration» Instruments» Market» Measures	1) Proactive welfare states, 2) Reactive welfare states, 3) Dual welfare states	1) Türkiye, Kazakhstan, Iran, Albania, 2) Bangladesh, Burkina Faso, Chad, Djibouti, Gambia, Guinea, Mali, Mauritania, Niger, Nigeria, Pakistan, Senegal, Sierra Leone, Sudan, Yemen, 3) Algeria, Azerbaijan, Bahrain, Brunei, Egypt, Indonesia, Jordan, Kuwait, Kyrgyzstan, Lebanon, Malaysia, Morocco, Oman, Qatar, Saudi Arabia, Tajikistan, Tunisia		

often attached to the dominant factions in society and employed in the formal economy. According to Cerami, the majority of people active in the informal sector or not supported by the ruling elites have, in contrast, remained unprotected or reliant on basic social services which take the form of provisions capable of ensuring only short-term physical survival (like measures to reduce extreme poverty, infant mortality, and malnutrition). In this context, informal welfare providers including the donor agencies play a cushioning role to let some

segments of the uncovered population escape from inevitable death, but only until the next social crisis materializes.

Early comparative studies on welfare regimes in South East Asia usually argued that prior to the 1997 Asian financial crisis most welfare systems in countries of this region were of a 'productivist' or 'developmental' nature, hence being classified under such categories (see for example Holliday 2000 & Kwon, 2005). However, Gough (2004b) predicted that countries like Indonesia and Ma-





laysia may move from a productivist to a liberal-informal type of welfare regime. Focusing on Indonesia, Malaysia, and Thailand, Sumarto (2020) argues that the regimes shifted from productivist to a more inclusive regime partly as public health programs reached citizens previously uncovered. However, this research concludes that the welfare regime in these three countries cannot substantiate a shift towards 'secure' welfare regimes as they continue to rely heavily on family and community for welfare provision to overcome social risks.

Examining the possibility of labeling the welfare regimes in South Asian countries as a 'developmental' type, Koehler and Chopra (2014) conclude that they cannot be characterized as constituting a developmental welfare state in any of the countries covered. However, the country studies in their book point to the existence of a 'welfare geography' with a pacifying character (aimed at generating buy-in and assent via populist social policies) as opposed to a transformative and rights-based developmental welfare state. According to the case studies, the welfare regime in Bangladesh is primarily dependent on civil society ('partnership welfare'), governmental social policies are by and large populist measures and therefore, the welfare regime could, at best, be termed a partial welfare state. Pakistan's story is reflective of a partial move to welfare, though the lack of links between social protection reform and economic policies implies that it is not a developmental welfare state; while Maldives may, at best, be termed 'partially welfare, partially developmental' state.

Analyzing the social expenditure and redistribution function of the welfare systems in Western Balkan countries, Mustafa and Gerovska-Mitev (2022) argue that in the post-Communist era most social policies in the Western Balkans, except for Kosovo, resemble the fundamental welfare state principles of continental Europe since they are mainly organized around social insurance institutions. They conclude that they are strongly redistributive towards old age, but are less efficient in reducing extensive child and working-age poverty; a pattern which has perhaps been shaped more by the legacy of socialism and war, local politics, and international organizations than by the impact of economic resources and aging.

Countries in the Caucasus and Central Asia (Former USSR) are usually regarded as experiencing the post-Communist transition. Countries of the Caucasus (including Azerbaijan) are sometimes grouped with Eastern European countries which possess features of a 'post-communist welfare model'; that is, being comprehensive in its structures, but weak in its performance to ensure a decent standard of living for its citizens (Aidukaite, 2010). Analyzing the transformation of welfare regimes in Eastern Europe and the Commonwealth of Independent States (CIS) as well as the variation within the country groups, Drahokoupil and Myant (2009) introduce three emerging welfare regimes that took shape during these transformations. Firstly, in the 'informalized model, welfare state institutions underwent limited adjustments. The state may have legal obligations to provide social protection, but fails to do so. Improvised solutions are then found by enterprises and individuals, who make informal payments for what may formally be publicly provided services. Secondly, in the 'minimal welfare state model' there is greater formal dependence on private provision and payment for services than is usual in western Europe. Adjustments in welfare institutions ensure that a private sector can supplement its activities to provide what is considered an adequate level of provision. Thirdly, the 'European social model' with social democratic orientation follows an alternative to the neo-liberal restructuring advocated from the political right. Of course, the authors consider this under threat, with pressures for reducing tax levels and welfare provision. According to their appraisal, most former USSR countries fall under the first category. However, Bolesta (2019) argues that the former Soviet republics in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) have followed a version of the 'post-socialist developmental state' model. Under this model, states maintain an authoritarian political system while focusing on state intervention and industrial policies for developmental purposes.

4. RESEARCH METHOD

In the last two decades, one of the most commonly used methods for classifying various welfare regimes across the globe (using quantitative data) has been cluster analysis, although it was rarely applied to cross-national data on social policy in the first decade of welfare regime research (Gough, 2001). This is especially the case in developing 'real-typical welfare regime' (Aspalter, 2019) typologies. Since welfare state variations are not linearly distributed but mainly clustered by regime types (as argued by Esping-Anderson, 1990), cluster analysis can be employed as a suitable technique in identifying various types or clusters of welfare arrangements in the sample of countries under study. Unlike the ideal-typical classifications of welfare states, cluster analysis is less theoretically driven and more exploratory in nature. Since there are no clearly defined ideal types of welfare arrangements in Muslim majority countries due to the lack of relevant literature, cluster analysis could help in finding out real types of welfare systems in the countries under study. Since the approach of the present research is exploratory in identifying the real worlds of welfare systems in Muslim majority countries, both hierarchical cluster analysis and k-means cluster analysis (KCA) were employed to construct a typology of welfare systems in the Muslim majority countries. While the first method seeks to build a hierarchy of clusters without fixing the number of clusters, the second requires the researcher to select a number of variables as criteria for clustering as well as to specify a predefined number of clusters and test alternative typologies. The clustering process can be repeated and alternative numbers of clusters examined to reach a viable grouping of countries in the sample.

Variables

Any attempt to extend the existing research on welfare regime typologies beyond the Global North faces multiple challenges in terms of data availability, validity, and being up-to-date. Some indicators

like de-commodification may not be completely valid for countries in the Global South since "labor is often informal, not subject to state regulation, and unlikely to be connected to social insurance benefits" (Böger & Öktem, 2019). Moreover, although indicators dealing with the structures and mechanisms of social welfare provision are very important in welfare regime analysis, existing social welfare datasets like the Social Policy Indicators (SPIN) or OECD Social Statistics are usually limited to a small number of countries outside the Global North. Therefore, the present research inevitably relied on a set of variables from diverse but prominent datasets which include the majority of countries in its sample. As a result, it is restricted to the existing data which, firstly, are less related to welfare structures and programs and, secondly, do not include variables dealing with specific religious welfare provisions in Muslim societies.

A welfare system approach was used to select variables for data gathering and analysis. This approach adopts a holistic examination of welfare provision in a given society, taking into account the contextual factors affecting the functioning of a welfare regime as well as the inputs and processes of welfare provision, while also considering the achieved outputs and outcomes of the welfare regime.

While input, process, output, and outcome variables were used to develop a typology of welfare systems in the countries under study, context variables were utilized to compare the policy environments which impact the functioning of a welfare system. Although regular data gathering takes place at the international level for numerous indicators dealing with all the above-mentioned dimensions of the welfare system, very few indicators cover all countries around the world. Even for such indicators as the poverty rate, it is not possible to find reliable and comparable data for all countries. Therefore, it is always a tradeoff between covering more countries or including more indicators in the analysis. To maximize the number of countries in the analysis, a number of variables were selected which (a) could represent various dimensions of the system in a meaningful way, and (b) had the lowest level of missing data. Table 2 shows the list of variables which were finally used in the analysis alongside the data sources.





Table 2. List of variables used in the analysis

Dim	ensions	Indicators	Sources		
		Total expenditure on social protection (excluding health)	ILO (2022) World Social Protection Report 2020-22 (Table A.4.2)		
Inpu	Political Social	Government expenditure on education, total (% of government expenditure)	UNESCO Institute for Statistics (2022)		
		Receiving international aid (as % of GNI)	OECD (2021)		
Proc	cess /output	Universal health coverage	ILO (2022) World Social Protection Report 2020-22 (Table A.4.3)		
		Human Development Index (HDI)	United Nations Development Program (2022)		
		Living conditions: The Legatum Prosperity Index (Pillar 9)	Legatum Institute (2021)		
		Health: The Legatum Prosperity Index (P 10)	Legatum Institute (2021)		
Out	come	Education: The Legatum Prosperity Index (P 11)	Legatum Institute (2021)		
		Inequality: Bottom 50% net personal wealth share	World Inequality Database (2022)		
	Outcome	Inequality: Bottom 50% national income share	World Inequality Database (2022)		
		Gender inequality index	UNDP (2022)		
		GDP per capita, PPP	World Bank (2022)		
		Rentierism (Rents from natural resources as % of GDP)	World Bank (2022)		
		Personal remittances (as % of GDP)	World Bank (2022)		
	Economic	Investment environment (P 5)	Legatum Institute (2021)		
		Enterprise conditions (P 6)	Legatum Institute (2021)		
		Infrastructure and market access (P 7)	Legatum Institute (2021)		
¥		Economic quality (P 8)	Legatum Institute (2021)		
Context		Personal freedom (P 1)	Legatum Institute (2021)		
O		Governance (P 2)	Legatum Institute (2021)		
	D live I	Safety and security (P 3)	Legatum Institute (2021)		
	Polifical	State capacity	O'Reilly and Murphy (2022)		
		Democracy level	Boese et al. (2022): (V-Dem v.12)		
		State fragility	Fund for Peace (2022)		
	Social	Social capital (P 4)	Legatum Institute (2021)		
	Cultural	Fractionalization (ethnicity, language, religion)	Alesina et al. (2003)		

Government social expenditure was included in the analysis as the 'input dimension' of the welfare system. Total expenditure on social protection (excluding health) and government expenditure on education as a share of total public government expenditure were the two main variables with the lowest level of missing data. Since a considerable number of countries in the sample rely on international aid to a large extent for their social service and development programs, 'receiving interna-

tional aid (as % of GNI)' was also used as an indicator of welfare system input.

A number of indicators from diverse sources were examined for inclusion as process and output elements of the system. Specifically, the World Social Protection Report by ILO (2022) includes many indicators for social protection coverage. However, the large quantity of missing data for many indicators (e.g. ten missing countries for the indicator 'population covered by at least one so-

cial protection benefit, excluding health') forced the researcher to use only one indicator with the highest data availability (that is, 'universal health coverage' with only three missing countries) for the process/output dimensions. Universal health coverage could be regarded as an indicator of the process dimension if one considers service organization and delivery, while it could also be regarded as an output indicator if it is interpreted as welfare take-up.

There were a considerable number of available indicators with few missing data for the outcome dimension. Not surprisingly, the Human Development Index (HDI), which is widely used in developing welfare typologies outside the OECD, was one of the main indicators. However, three elements of the Legatum Prosperity Index with direct relevance to welfare outcomes were included in the analysis to have a more comprehensive understanding of the welfare outcomes for the countries under study. These elements or pillars are: living conditions (the degree to which a reasonable quality of life is experienced by all, including material resources, shelter, basic services, and connectivity), health (the extent to which people are healthy and have access to the necessary services to maintain good health, including health outcomes, health systems, illness and risk factors, and mortality rates) and education (enrollment, outcomes, and quality across four stages of education from pre-primary to tertiary education, as well as skills in the adult population). Given the importance of reducing social inequality as a major goal of welfare regimes, various options were examined to be included in the analysis. Although the most commonly used variable is the Gini index, a large number of countries with missing data in this indicator prompted the researcher to seek other options. The World Inequality Database (2022) provided suitable data with only one missing case for the sample, so it was used in the analysis. Both the income and wealth inequality indicators (Bottom 50% national income share and Bottom 50% net personal wealth share) were included. Since the gender equality variable is of prominent importance, many existing datasets were explored to find a reliable indicator with minimum missing data. Finally, the Gender Inequality Index (GII)

was included in the analysis, although it led to omission of some countries due to lack of data. Since the scales of various variables were not the same, data were standardized using the z-score function of the cluster analysis.

Table 3 shows information about all variables which were used in the final cluster analysis. The F statistics indicates that the 'universal health coverage' variable is the most powerful factor in differentiating various clusters from each other followed by HDI and wealth inequality variables.

There are many contextual variables that directly and indirectly influence the functioning of a given welfare regime. While these variables have not been included in the cluster analysis, rankings of different welfare regimes in these areas were examined to provide the reader with a better understanding of the policy environment within which a specific welfare regime is operating.

The economic situation was studied by examining the following indicators: GDP per capita (PPP), rentierism (rents from natural resources as % of GDP), personal remittances (as % of GDP), investment environment (the extent to which investments are adequately protected and are readily accessible), enterprise conditions (the degree to which regulations enable businesses to start, compete, and expand), infrastructure and market access (the quality of the infrastructure that enables trade, and distortions in the market for goods and services), and economic quality (how well an economy is equipped to generate wealth sustainably and with the full engagement of the workforce). The last four indicators are pillars 5, 6, 7, and 8 of the Legatum Prosperity Index.

For the political situation, pillars 1, 2, and 3 of the Legatum Index have been used. This cover: Safety and security (the degree to which war, conflict, and crime have destabilized the security of individuals, both immediately and through longer lasting effects), personal freedom (progress towards basic legal rights, individual liberties, and social tolerance), as well as governance (the extent to which there are checks and restraints on power and whether governments operate effectively and without corruption). While the first pillar is also capable of being regarded as an index for measuring fragility at the state level, a specific 'state fragility index' (Fund for Peace, 2022) was





Table 3. Results of the ANOVA test

	Cluster Error					
	Mean Square	df	Mean Square	df	F	Sig.
Gender Inequality Index	4.000	8	.157	29	25.521	.000
Wealth inequality	4.853	8	.179	29	27.072	.000
Income inequality	3.616	8	.248	29	14.580	.000
Universal health coverage	3.876	8	.128	29	30.170	.000
Government expenditure on education	2.590	8	.403	29	6.422	.000
Total expenditure on social protection	3.488	8	.317	29	11.012	.000
Human Development Index (HDI)	4.337	8	.151	29	28.653	.000
Legatum: Living Conditions	3.724	8	.165	29	22.603	.000
Legatum: Health	3.422	8	.169	29	20.251	.000
Legatum: Education	3.903	8	.235	29	16.639	.000
International Aid GNI	2.031	8	.096	29	21.110	.000

employed to cross check the results. Similarly, the governance pillar of the Legatum Index could be regarded as an index of administrative state capacity, but the 'state capacity index' developed by O'Reilly and Murphy (2022) based on the Varieties of Democracy (V-Dem) dataset (version 12) was also examined in this regard. Finally, the 'democracy index' provided in the Democracy Report 2022 by Boese et al. (2022), which is part of the V-Dem project, was used to identify the ranking of various welfare regime clusters in terms of democratic governance.

The social component of the contextual situation was studied with the social capital element of the Legatum Prosperity Index (pillar 4). This pillar measures the strength of personal and social relationships, institutional trust, social norms, and civic participation in countries under study. Finally, the 'fractionalization' variable was included in the cultural aspect of the contextual study of welfare systems. For this purpose, Alesina et al. (2003) have developed a comprehensive index which includes the three elements of ethnicity, language, and religion. This index measures the ethnic, linguistic, and religious heterogeneity or structural cultural distances between various parts of the population in a country which could be related to the quality of institutions and development, including in the field of social welfare policy.

It is noteworthy that this research does not aim to examine or establish causal relationships be-

tween the contextual factors and welfare regime functioning. Instead, it attempts to provide the reader with an understanding of the contextual framework within which welfare regimes function.

5. CLUSTERS OF WELFARE SYSTEMS IN MUSLIM SOCIETIES

Hierarchical cluster analysis was employed as the first step to work out the possible number of clusters within the sample. The reason was to have a holistic picture of the sample which provides the researcher with a plausible number as well as outlining the general dimensions of differentiation and variation among the countries. Figure 2 presents the dendrogram chart using average linkage (between groups). While different cut-points lead to different numbers of clusters, it seems that a nine clusters solution could be regarded as viable. Of these nine, two clusters have one outlier member (Yemen and Sierra Leone) while other clusters consist of countries which seem to be homogenous within each cluster and heterogeneous compared to members of other clusters (which will be discussed below). To provide the reader with a possibility to evaluate the process and outcome of clustering, Table A-2 in the Annex presents cluster membership with four to ten solutions (the table is sorted based on the ten clusters column).

As the second step, various solutions for the k-means cluster analysis were examined but the nine clusters solution (inspired by the hierarchical cluster analysis as well as plausibility of the clusters) was finally adopted. Data in table 4 show distances between final cluster centers and indicate that there are considerable divergences and disparities between various clusters. Overall,

cluster 2 seems to be relatively close to cluster 9. However, final cluster centers for various variables entered in the KCA indicate that there is considerable inhomogeneity between those clusters with relatively low distances from each other in some variables, which will be discussed below.

Table 5 shows the cluster memberships that emerged from the k-means cluster analysis. Think-

Figure 2. Hierarchical cluster analysis: dendrogram using average linkage (between groups)

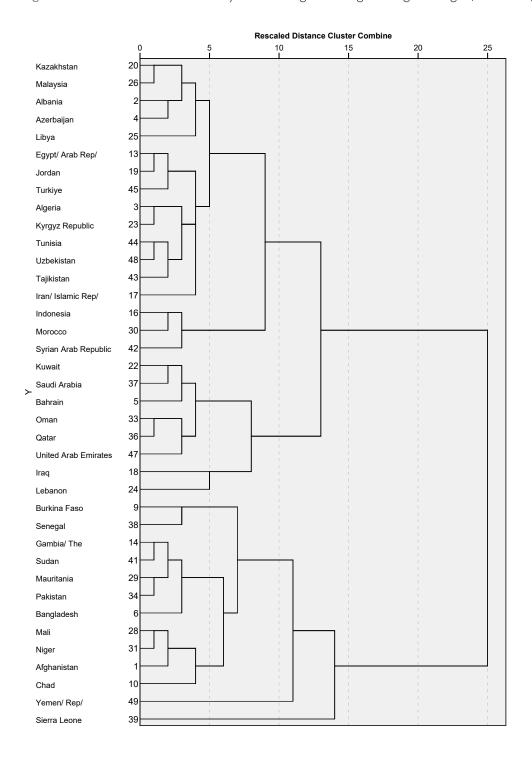




Table 4. Distances between Final Cluster Centers

Cluster	1	2	3	4	5	6	7	8	9
1		5.654	5.589	3.082	6.979	2.134	3.012	3.856	5.499
2	5.654		4.001	4.052	3.659	3.834	6.787	6.788	1.589
3	5.589	4.001		4.065	2.551	4.547	5.770	6.915	3.150
4	3.082	4.052	4.065		4.832	2.452	3.619	3.862	3.603
5	6.979	3.659	2.551	4.832		5.533	7.139	8.027	3.354
6	2.134	3.834	4.547	2.452	5.533		4.180	4.778	3.942
7	3.012	6.787	5.770	3.619	7.139	4.180		4.264	6.241
8	3.856	6.788	6.915	3.862	8.027	4.778	4.264		6.414
9	5.499	1.589	3.150	3.603	3.354	3.942	6.241	6.414	

Table 5. Cluster Membership

Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6	Cluster 7	Cluster 8	Cluster 9
Afghanistan	Albania	Iraq	Burkina Faso	Bahrain	Bangla-	Yemen	Sierra	Egypt
Chad	Algeria	Lebanon	Indonesia	Kuwait	desh		Leone	Iran
Gambia	Azerbaijan		Senegal	Oman	Mauritania			Jordan
Mali	Kazakhstan		Syrian Arab	Qatar	Pakistan			Kyrgyzstan
Niger	Libya		Republic	Saudi	Sudan			Morocco
	Malaysia			Arabia				Tunisia
	Tajikistan			United Arab Emirates				Türkiye
				Litilidies				Uzbekistan

ing about the welfare outcomes (as outlined in table 6 and table 7), cluster 5 (which covers six oilrich countries of the Persian Gulf, namely Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates) demonstrates the highest levels of welfare in the three main elements of the Legatum Prosperity Index with regard to living conditions (80.05), health (76.22), and education (67.74). Not surprisingly, this cluster also has the highest level of HDI (0.8605). Countries in this cluster also show the lowest level of gender inequality on average (0.2192). However, inequality is at its highest level in this cluster with the 'bottom 50% of the population net personal wealth share' being as low as 1.55% and the 'national income share of bottom 50% of the population' being equal to 10.72%. It is noteworthy that these countries have reached such a good position in welfare outcomes with lower than average input measures like public expenditure on social protection and

education, although their health coverage rate is the highest among all clusters (73.33%).

Cluster 5 is followed closely by cluster 2 (including such countries as Albania, Algeria, Azerbaijan, Kazakhstan, Libya, Malaysia, and Tajikistan) and cluster 9 (consisting of Egypt, Iran, Jordan, Kyrgyzstan, Morocco, Tunisia, Türkiye, and Uzbekistan) in terms of welfare outcomes. Average prosperity scores of countries in clusters 2 and 9 for the main outcome indicators are respectively as follows: living conditions (75.52 and 74.95), health (72.83 and 72.78), education (65.74 and 58.18), HDI (0.7576 and 0.737). While the two clusters are very close to each other in these outcome aspects (an issue which was also evident from table 6 on cluster centers), various dimensions of inequality make them quite different since cluster 2 shows higher levels of equality in all three dimensions. As table 7 shows, the share of 'bottom 50% of the population net personal

Table 6. Final Cluster Centers

	Cluster								
	1	2	3	4	5	6	7	8	9
Gender Inequality Index	1.35502	79869	.42692	.58679	-1.12840	.82023	2.13033	1.27580	19629
Wealth inequality	.50371	.66892	-2.38907	.33789	-1.85051	.61812	.03060	.43259	.23836
Income inequality	.22014	1.02518	-1.01327	95014	-1.32896	.72473	-1 <i>.7</i> 9823	.13004	.08610
Universal health coverage	-1.39028	.66767	.53985	51469	.94462	89816	-1.05794	-1.24967	.83544
Government expenditure on education	26925	09527	46411	1.04567	45402	56590	.08891	3.46322	.38642
Total expendi- ture on social protection	77609	.59948	.87768	80754	.00386	67273	97981	97981	1.37950
Human Develop- ment Index (HDI)	-1.53729	.62737	.20768	<i>7</i> 1593	1.32896	66992	-1.43505	-1.28509	.48715
Legatum: Living Conditions	-1.40897	.66919	.57915	45815	1.10043	5 <i>7</i> 452	-1.10438	-1.58985	.63630
Legatum: Health	-1.47257	.67258	.16860	02755	1.00705	38614	85619	-1.69149	.67813
Legatum: Education	-1.40515	.93801	.37211	47944	1.05519	86094	-1.23830	-1.04700	.49311
International Aid (% of GNI)	.70880	47292	35554	.00624	62630	14781	2.54807	1.47438	38822

wealth' in cluster 2 is 4.8% (compared to 4.2% in cluster 9) and the 'national income share of bottom 50% of the population' is 17.6% (compared to 14.86%). The same picture applies with regard to gender equality, where there is less inequality in cluster 2 (0.2774) than in cluster 9 (0.3839). A notable point is that clusters 9 and 2 have lower scores in welfare outcomes despite the fact that their input indicators are higher than cluster 5. For example, while cluster 9 spends 8.6% of its public budget on social protection and this figure is close to 6% in cluster 2, countries in cluster 5 spend just 1.7% on average. The same story is true with regard to education expenditure, where the figures are 16.8%, 14% and 12% respectively. So, higher inputs with less outcomes could be witnessed in the case of clusters 9 and 2.

It is interesting that cluster 3 (consisting of Iraq and Lebanon) stands at the fourth rank in five indicators of the welfare outcome dimension: living conditions (73.95), health (67.58), educa-

tion (56.12), HDI (0.696), and gender equality (0.494). However, it is the least equal cluster in terms of wealth (since the share of wealth enjoyed by the bottom half of the population is as low as 0.85%) and has one of the lowest rates of income share by bottom half of the population (11.64%).

Cluster 4 (with members like Burkina Faso, Indonesia, Senegal, and Syrian Arab Republic) and cluster 6 (covering Bangladesh, Mauritania, Pakistan, and Sudan) follow each other and seem to be close in many aspects related to welfare outcomes. They show lower than average scores in various indicators: living conditions (55.85 and 53.82), health (65.56 and 61.87), education (41.63 and 35.14), HDI (0.5605 and 0.5673), and GII (0.5223 and 0.5635). This is also the case with regard to social protection and health coverage (where both clusters show lower scores than the average) as well as receiving international aid (6.8% compared to 5.1% of GNI respectively). However, what makes them different is



Table 7. Clusters' ranking in various dimensions of the welfare system

Living Co	onditions	He	alth	Educ	ation	Н	Ol	GII		Health Coverage	
Cluster 5	83.0469	Cluster 5	76.2249	Cluster 5	67.7367	Cluster 5	0.8605	Cluster 5	0.2192	Cluster 5	73.33
Cluster 2	75.5219	Cluster 9	72.835	Cluster 2	65.7434	Cluster 2	0.7576	Cluster 2	0.2774	Cluster 9	71.63
Cluster 9	74.948	Cluster 2	72.7778	Cluster 9	58.1751	Cluster 9	0.737	Cluster 9	0.3839	Cluster 2	69
Cluster 3	73.9508	Cluster 3	67.5839	Cluster 3	56.1166	Cluster 3	0.696	Total	0.4313	Cluster 3	67
Total	65.528	Total	67.1881	Total	51.0909	Total	0.6683	Cluster 3	0.494	Total	59.87
Cluster 4	55.85	Cluster 4	65.5624	Cluster 4	41.6306	Cluster 6	0.5673	Cluster 4	0.5223	Cluster 4	50.5
Cluster 6	53.8194	Cluster 6	61.8667	Cluster 6	35.1407	Cluster 4	0.5605	Cluster 6	0.5635	Cluster 6	44.5
Cluster 7	44.5734	Cluster 7	57.0225	Cluster 8	31.9756	Cluster 8	0.477	Cluster 8	0.644	Cluster 7	42
Cluster 1	39.2584	Cluster 1	50.6702	Cluster 7	28.7213	Cluster 7	0.455	Cluster 1	0.658	Cluster 8	39
Cluster 8	36.1021	Cluster 8	48.414	Cluster 1	25.8831	Cluster 1	0.44	Cluster 7	0.795	Cluster 1	36.8

	Wealth Inequality (Share of b50%)		Income Inequality (Share of b50%)		Education Expenditure		Social Protection Expenditure		national Aid
Cluster 1	4.592	Cluster 2	17.6129	Cluster 8	34.2442	Cluster 9	8.575	Cluster 5	0
Cluster 2	4.8057	Cluster 6	16.7325	Cluster 4	20.52	Cluster 3	6.9	Cluster 2	1.643
Cluster 6	4.74	Cluster 1	15.254	Cluster 9	16.7775	Cluster 2	5.9714	Cluster 9	2.55
Cluster 8	4.5	Cluster 8	14.99	Cluster 7	15.0886	Total	4.4316	Cluster 3	2.9
Cluster 4	4.3775	Cluster 9	14.8613	Total	15.0167	Cluster 5	3.9833	Cluster 6	5.125
Cluster 9	4.2488	Total	14.3311	Cluster 2	14.043	Cluster 6	1.725	Total	5.613
Cluster 7	3.98	Cluster 4	11.825	Cluster 1	13.0553	Cluster 1	1.38	Cluster 4	6.775
Total	3.8558	Cluster 3	11.64	Cluster 5	12.0064	Cluster 4	1.275	Cluster 1	14.3
Cluster 5	1.5467	Cluster 5	10.715	Cluster 3	11.9491	Cluster 7	0.7	Cluster 8	22.5
Cluster 3	0.85	Cluster 7	9.34	Cluster 6	11.3713	Cluster 8	0.7	Cluster 7	34

the fact that cluster 4 spends more on education (20.5% of government expenditure) than cluster 6 (11.4% which is the lowest level of education expenditure among all clusters). Moreover, cluster 4 experiences more inequalities than cluster 6 in terms of income (with 11.83% compared to 16.73% of national income enjoyed by the bottom 50%) and wealth (with 4.38% compared to 4.74% of net wealth enjoyed by the bottom 50%).

One finds clusters 1 (Afghanistan, Chad, Gambia, Mali, and Niger), 7 (Yemen), and 8 (Sierra Leone) at the bottom ranks in most indicators of the welfare outcome dimension and the differences between these three clusters are not very large. However, cluster 1 shows the lowest level of wealth inequality (4.59%) as well as one of the lowest income inequality levels (15.25%). Moreover, while the share of international aid as a proportion of GNI is considerably higher in cluster 1 (14.3%) than in many other clusters, it is cluster 7 which receives the highest flow of international aid (34%), followed by cluster 8 (22.5%). In fact, the outlier position of clusters 7 and 8 may be partially attributed to their severe dependence on international aid. Although countries in these three clusters rank lowest or very low in terms of welfare input and output, the case of Sierra Leone is notable since it has witnessed a sharp increase in education expenditure in recent years and spends nearly one third of its public budget on education.

Contextual comparison of clusters

The context within which a welfare system operates is of vital importance and closely related to its achievements or weaknesses. While contextual variables were not included in the cluster analysis nor was causal inference applied to study the impact of these factors on the welfare outcomes of various clusters, this section aims to compare the situation of the produced clusters with regard to different contextual aspects.

To begin with cluster 5, which showed the highest level of welfare outcome, it is evident from data presented in table 8 that members of this cluster are in the most favorable economic situation. They enjoy the highest GDP per capita with a very great

distance from other clusters (\$55,612 compared to the second rank of cluster 2 with \$18,484) and the highest share of natural resources in their GDP (17.8%). Moreover, they stand at the highest rank in all economic pillars of the Legatum Prosperity Index in terms of investment environment (63.2), enterprise conditions (67.1), infrastructure and market access (70.2), and economic quality (55.7). Additionally, they have the highest score in the governance pillar (48.4) and second highest score for state capacity (0.2024) together with the lowest level of state fragility (52.87) and the best safety and security score (75.8). It is notable that although the level of fractionalization is close to average in this cluster, it enjoys the highest level in the social capital pillar as well (59.6). Interestingly, all these favorable economic and social aspects coincide with one of the worst situations in the political dimension since countries in this cluster rank the second lowest on level of democracy (0.1117), which is just better than in Yemen (cluster 7).

Countries in cluster 2 have the second highest mean GDP (\$18,484 per capita) and rank third in terms of natural resources (11.3% of GDP). Cluster 2 usually stands on the second or third rank in some of the economic pillars of the Legatum Index and swaps its rank with cluster 9. However, it performs below the average of all clusters in terms of democratization (0.1771) and state capacity (-1.1348) while enjoying the second-best safety and security score (64.38) and second lowest state fragility level (69.6). Despite country differences, cluster 9 enjoys far below average rent (with a 6.2% share of natural resources in the GDP) and slightly below average GDP per capita (\$13,007) as well as social capital score (47.8). Its democracy score is marginally above average (0.2075) and the countries in this cluster experience the second lowest level of fractionalization (0.8691).

Cluster 3 has the highest input level in terms of remittances (12.96% of GDP), but this result is highly affected by the reliance of Lebanon's economy on remittances (25.56% of GDP compared to just 0.35% in the case of Iraq). The cluster also has the second highest rate of natural resources in the economy (16.2% of GDP), which is mainly due to the fact that Iraq has the highest share of rents from natural resources in its GDP (32.42%). Although



Table 8. Characteristics of the clusters in some context variables

GDP per cap. PPP		Rent (Nat. F	Resources)	Remittances		Investment Environment		Enterprise Conditions		Infrastructure and Market Access		Economic Quality	
Cluster 5	55,611.806	Cluster 5	17.799	Cluster 3	12.9562	Cluster 5	63.2081	Cluster 5	67.1004	Cluster 5	70.1826	Cluster 5	55.7039
Cluster 2	18,484.094	Cluster 3	16.211	Cluster 9	9.3478	Cluster 9	51.9187	Cluster 2	52.7724	Cluster 9	54.6968	Cluster 2	47.4412
Total	17,007.996	Cluster 2	11.6034	Cluster 1	7.2344	Cluster 2	49.6837	Cluster 9	52.7499	Cluster 2	53.1701	Cluster 4	44.1696
Cluster 9	13,006.91	Total	9.2403	Cluster 2	6.9456	Total	47.2726	Total	51.3009	Total	47.7717	Cluster 9	43.5342
Cluster 3	10,550.08	Cluster 8	7.8065	Total	6.5525	Cluster 4	44.8526	Cluster 3	50.2821	Cluster 3	47.353	Total	43.2153
Cluster 6	5,574.9278	Cluster 1	6.8326	Cluster 4	4.7655	Cluster 3	42.372	Cluster 4	46.9853	Cluster 4	41.2802	Cluster 1	36.2527
Cluster 4	5,508.7363	Cluster 9	6.2447	Cluster 6	4.6178	Cluster 6	37.477	Cluster 6	43.4682	Cluster 6	35.7304	Cluster 6	35.3881
Cluster 7	2,078	Cluster 7	4.6094	Cluster 8	4.3569	Cluster 1	35.9042	Cluster 1	43.4518	Cluster 7	28.3519	Cluster 3	34.7042
Cluster 1	1,972.0138	Cluster 4	4.5178	Cluster 5	0.1421	Cluster 8	32.9027	Cluster 8	41.3983	Cluster 1	26.2463	Cluster 8	32.6376
Cluster 8	1,816.1703	Cluster 6	4.0212	Cluster 7		Cluster 7	27.4877	Cluster 7	34.3917	Cluster 8	22.1311	Cluster 7	26.0544

Governance		Safety and Security		State Capacity		Democracy level		State fragility		Social capital		Fractionalization	
Cluster 5	48.41	Cluster 5	75.7809	Cluster 8	1.2013	Cluster 8	0.43	Cluster 5	52.8667	Cluster 5	59.5783	Cluster 7	.0182
Cluster 4	42.3647	Cluster 2	64.3846	Cluster 5	0.2024	Cluster 4	0.375	Cluster 2	69.6	Cluster 8	53.438	Cluster 9	.8691
Cluster 8	41.4954	Cluster 8	63.9644	Cluster 9	-0.2732	Cluster 3	0.25	Cluster 9	75.925	Cluster 2	53.0829	Cluster 3	1.1370
Cluster 9	40.6127	Cluster 9	61.8218	Cluster 4	-0.7661	Cluster 1	0.216	Total	78.4684	Total	49.7412	Cluster 2	1.2092
Cluster 2	40.3094	Total	57.6882	Total	-0.8555	Cluster 9	0.2075	Cluster 8	82.4	Cluster 4	49.1133	Cluster 6	1.2452
Total	39.5148	Cluster 4	52.5793	Cluster 2	-1.1348	Total	0.2029	Cluster 4	84.4	Cluster 6	48.2856	Total	1.2572
Cluster 1	36.3384	Cluster 6	47.5028	Cluster 1	-1.3699	Cluster 2	0.1771	Cluster 6	92.3	Cluster 9	47.7608	Cluster 5	1.2602
Cluster 3	35.6591	Cluster 1	44.208	Cluster 6	-1.5876	Cluster 6	0.15	Cluster 3	92.55	Cluster 1	43.7593	Cluster 4	1.6174
Cluster 6	30.6662	Cluster 3	40.1941	Cluster 3	40.1941	Cluster 5	0.1117	Cluster 1	96.8	Cluster 7	41.1968	Cluster 1	1.7858
Cluster 7	17.407	Cluster 7	26.4774	Cluster 7	-4.8975	Cluster 7	0.03	Cluster 7	111.7	Cluster 3	38.0003	Cluster 8	2.1220

cluster 3 enjoys the third rank on the democracy score (0.25), it suffers from a high level of state fragility (92.55) and a low record of state capacity (-1.817) as well as weak safety and security (40.19). Moreover, social capital is at its lowest level in this cluster (38).

Cluster 6 faces the lowest level of natural resources as a share of GDP (4%) to finance its welfare programs and simultaneously suffers from weak governance (30.67) to manage its available resources. Cluster 4 shares the feature of few natural resources with cluster 6, but it enjoys the second rank in governance (42.36).

The lowest level of governance (17.4), state capacity (-4.8975), safety and security (26.47), democracy (0.03), and state stability (exemplified in an astonishing score of state fragility at 111.7) is witnessed in cluster 7. It also suffers from the worst economic environment together with cluster 8: investment environment (27.49 and 32.9), enterprise conditions (34.4 and 41.4), infrastructure and market access (28.35 and 22.13), and economic quality (26.05 and 32.63). However, cluster 8 enjoys the highest democracy score (0.43) and state capacity (1.2013), as well as considerably high social capital (53.4), safety and security (63.96), and governance (41.5) scores, although it has the lowest GDP per capita among all clusters (\$1,816). Cluster 1 shares the last feature with cluster 8, having the second lowest GDP per capita (\$1,972), and shares the highest rates of state fragility (96.8) with cluster 7.

6. Conclusions

Findings of the present research showed that a vast diversity of experiences can be witnessed among Muslim majority countries with regard to various aspects of the welfare system (diversity within the so-called 'Muslim World'). A combination of contextual features with input, output, and outcome attributes form different types of welfare arrangements which will be discussed below.

The most straightforward type of welfare system which emerged from the research was that of the 'Rentier social non-democracy system' (cluster

5), which exists in six Arab countries of the Persian Gulf (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates). It is characterized by being outcome oriented, very high economic inequality (though lowest gender inequality), favorable economic environment, best governance among all clusters and, simultaneously, the lowest level of democracy. It seems that one of the notable reasons why these countries were not much affected by the Arab Spring (despite their weak democratic records) was due to the favorable situation of their welfare system which provides their citizens with higher welfare outcomes (thanks to the extraordinary rents from natural resources) compared to other Arab countries of the MENA region. Countries like Iraq, Libya, and Iran have the same high share of rents in their GDP but longstanding war and instability in the case of Iraq and Libya as well as uneven foreign relations and the resulting economic sanctions in the case of Iran (alongside other reasons) have prevented them from utilizing these resources for the welfare of their citizens. Apparently, countries in cluster 5 have been able to employ their available financial resources in conjunction with their political stability to prepare an economic environment which has led to 'trickledown' of welfare benefits towards lower groups in the population, although they show lower welfare inputs and experience extraordinarily high income and wealth inequalities. All in all, and despite Jawad's argument (2022) that the rentier label is inadequate and misleading, it seems to be the case for the oil-rich Arab countries of the Persian Gulf if not for all MENA countries. Moreover, these do not seem to be cases of the 'resource curse' or the 'paradox of plenty' (Auty, 1995), at least with regard to welfare outcomes, since the oil-rich countries in this cluster show the highest welfare performance among all clusters.

The 'Equality-oriented proto-welfare system' of countries in cluster 2 (Albania, Algeria, Azerbaijan, Kazakhstan, Libya, Malaysia, and Tajikistan) is mainly characterized by the highest level of income equality and second highest wealth and gender equality. Relatively high GDP and rents (on average) and a moderately better economic environment have laid the ground for this cluster to enjoy second highest ranks in most welfare





outcome indicators. This cluster seems to be more efficient than cluster 9, since it has achieved those outcomes with far fewer inputs. This type of welfare system seems to have some common features with the 'Proto-welfare state' regime in the typologies of Böger and Öktem (2018) as well as Abu Sharkh and Gough (2010).

The 'Less efficient proto-welfare system' label could be given to cluster 9 (Egypt, Iran, Jordan, Kyrgyzstan, Morocco, Tunisia, Türkiye, and Uzbekistan). This cluster is input oriented (e.g. by having the highest social protection expenditure rate), provides one of the three highest welfare outcomes, and experiences middle levels of income and wealth inequality. This cluster has an above average favorable economic environment among all clusters and enjoys an average economic capacity (in terms of GDP per capita and rents from natural resources). Although this cluster's welfare system may be regarded as a 'More effective informal security regime' (using Wood and Gough's (2006) label) compared to the other clusters (apart from 5 and 2) because of providing better welfare outcomes, it could also be considered 'less efficient' due to spending more and achieving less. Apart from issues of efficiency and state-capacity, the 'segmented market economies' (Hertog, 2020) found in most of these countries means that the resources of these states are stretched thin due to their commitments to insiders, preventing investment in more inclusive welfare or broader economic development.

Iraq and Lebanon stick together in cluster 3 under the label 'Fragile informal welfare system'. This system is fragile because it shows high levels of state fragility and low levels of state capacity and governance while suffering from low social capital at the same time. Despite these negative factors, this cluster has achieved slightly above average welfare outcomes which seems to be due to informal actors since Lebanon for example has one of the highest remittance rates and one quarter of its GDP (25.56%) is attributed to this source. Moreover, although Iraq ranks first in terms of natural resources share in GDP, the long-standing conflict and instability combined with low state capacity has impeded those resources from contributing to

the real wellbeing of its people and they rely on informal actors for their welfare.

A combination of low natural resources and GDP with high fractionalization has led the 'Failing informal welfare system' in cluster 4 (Burkina Faso, Indonesia, Senegal, and Syrian Arab Republic) to perform below average in terms of welfare outcomes. In this cluster, the coverage rate of formal social protection is one of the lowest and informal providers of welfare seem to struggle in achieving welfare outcomes for the people.

The 'Failing informal materially-equal system' is found in cluster 6 (Bangladesh, Mauritania, Pakistan, and Sudan). This cluster shares many features with cluster 4 in terms of below average welfare inputs and outcomes, high reliance on the informal sector due to the very low social protection rate, and one of the lowest health coverage rates on the one hand, and the lowest rate of natural resources in GDP as well as the second lowest governance scores on the other. Having one of the lowest levels of income and wealth inequality (alongside high gender inequality) is notable about this type of welfare system. The lowest rate of expenditure on education among all clusters and one of the lowest educational achievements scores is in line with findings of Abu Sharkh and Gough's typology (2010), which labels the welfare regime in Pakistan and Bangladesh as 'Failing informal security regimes: high illiteracy'.

Finally, countries in cluster 1 (Afghanistan, Chad, Gambia, Mali, and Niger) seem to suffer from a 'Failed ill-fare system' which brings about the lowest welfare outcomes of all clusters for their people. This type of system has also failed in term of securing welfare inputs (since it is highly dependent on international aid) as well as the context of welfare provision (due to high fragility and fractionalization, low state capacity, lowest GDP, and an unfavorable economic environment); a situation which impedes the informal sector from carrying out its normal and routine welfare functions. This cluster seems to be similar to what was identified as the 'Externally dependent insecurity regime' by Gough et al. (2004) and Wood and Gough (2006) as well as the 'Insecurity regimes' in Abu Sharkh and Gough's typology (2010).

Future research on welfare arrangements in Muslim societies should focus on some further themes to provide better understanding. Firstly, it is necessary to adopt specific concepts and indicators which are sensitive to the unique components of Islamic culture with regard to social policy and welfare. Secondly, employing those indicators which are more related to welfare structures and mechanisms may better reveal features of various types of welfare arrangements in the countries under study. Thirdly, more emphasis on non-governmental welfare providers in the informal, voluntary, occupational, and commercial welfare sectors may produce different results in terms of welfare regime typologies. Finally, a comparison with non-Muslim majority countries would be informative in terms of how these countries could be classified in a global perspective.

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ANNEX

Table A1. Members of the Organization for Islamic Cooperation (OIC)

	Country	Population (millions)	Percentage Muslim
1	Afghanistan	39.84	99.0 %
2	Albania	2.81	58.8 %
3	Algeria	44.62	99.0 %
4	Azerbaijan	10.15	93.4 %
5	Bahrain	1.75	70.3 %
6	Bangladesh	166.30	89.5 %
7	Benin	12.45	24.4 %
8	Brunei	0.44	78.8 %
9	Burkina Faso	21.50	60.5 %
10	Cameroon	27.22	20.0 %
11	Chad	16.91	53.1 %
12	Comoros	0.89	98.0 %
13	Djibouti	1.00	94.0 %
14	Egypt	104.26	90.0 %
15	Gabon	2.28	10.0 %
16	Gambia	2.49	90.0 %
17	Guinea	13.50	85.0 %
18	Guinea-Bissau	2.02	45.1 %
19	Guyana	0.79	7.2 %
20	Indonesia	276.36	87.2 %
21	Iran	85.03	96.5 %
22	Iraq	41.18	97.0 %
23	Ivory Coast	27.05	38.6 %
24	Jordan	10.27	94.2 %
25	Kazakhstan	19.00	70.2 %
26	Kuwait	4.33	73.2 %
27	Kyrgyzstan	6.69	75.0 %
28	Lebanon	6.77	58.5 %
29	Libya	6.96	96.6 %
30	Malaysia	32.78	61.3 %
31	Maldives	0.54	100.0 %
32	Mali	20.86	94.8 %
33	Mauritania	4.78	100.0 %
34	Morocco	37.34	99.0 %
35	Mozambique	32.16	17.9 %
36	Niger	25.13	80.0 %
37	Nigeria	211.40	50.0 %
38	Oman	5.22	85.9 %

	Country	Population (millions)	Percentage Muslim
39	Pakistan	225.20	95.0 %
40	Palestine	4.92	91.0 %
41	Qatar	2.93	77.5 %
42	Saudi Arabia	35.34	99.0 %
43	Senegal	17.20	94.0 %
44	Sierra Leone	8.14	60.0 %
45	Somalia	16.36	99.9 %
46	Sudan	44.91	70.0 %
47	Suriname	0.59	19.6 %
48	Syria	22.13	87%
49	Tajikistan	9.75	90.0 %
50	Togo	8.48	20.0 %
51	Tunisia	11.94	99.1 %
52	Türkiye	85.04	99.0 %
53	Turkmenistan	6.12	89.0 %
54	Uganda	47.12	12.1 %
55	United Arab Emirates	9.99	76.0 %
56	Uzbekistan	34.92	88.0 %
57	Yemen	30.49	98.0 %





Table A2. Hierarchical cluster analysis: Cluster membership with 4 to 10 solutions, sorted based on the 10 clusters column

Case	10 Clusters	9 Clusters	8 Clusters	7 Clusters	6 Clusters	5 Clusters	4 Clusters
1 : Afghanistan	1	1	1	1	1	1	1
10: Chad	1	1	1	1	1	1	1
28: Mali	1	1	1	1	1	1	1
31: Niger	1	1	1	1	1	1	1
2: Albania	2	2	2	2	2	2	2
4: Azerbaijan	2	2	2	2	2	2	2
20: Kazakhstan	2	2	2	2	2	2	2
25: Libya	2	2	2	2	2	2	2
26: Malaysia	2	2	2	2	2	2	2
3: Algeria	3	2	2	2	2	2	2
13: Egypt/ Arab Rep/	3	2	2	2	2	2	2
17: Iran/Islamic Rep/	3	2	2	2	2	2	2
19: Jordan	3	2	2	2	2	2	2
23: Kyrgyzstan	3	2	2	2	2	2	2
43: Tajikistan	3	2	2	2	2	2	2
44: Tunisia	3	2	2	2	2	2	2
45: Türkiye	3	2	2	2	2	2	2
48: Uzbekistan	3	2	2	2	2	2	2
5: Bahrain	4	3	3	3	3	3	3
22: Kuwait	4	3	3	3	3	3	3
33: Oman	4	3	3	3	3	3	3
36: Qatar	4	3	3	3	3	3	3
37: Saudi Arabia	4	3	3	3	3	3	3
47: United Arab Emirates	4	3	3	3	3	3	3
6: Bangladesh	5	4	1	1	1	1	1
14: Gambia/The	5	4	1	1	1	1	1
29: Mauritania	5	4	1	1	1	1	1
34: Pakistan	5	4	1	1	1	1	1
41: Sudan	5	4	1	1	1	1	1
9: Burkina Faso	6	5	4	1	1	1	1
38: Senegal	6	5	4	1	1	1	1
16: Indonesia	7	6	5	4	4	2	2
30: Morocco	7	6	5	4	4	2	2
42: Syrian Arab Republic	7	6	5	4	4	2	2
18: Iraq	8	7	6	5	3	3	3
24: Lebanon	8	7	6	5	3	3	3
39: Sierra Leone	9	8	7	6	5	4	4
49: Yemen/Rep/	10	9	8	7	6	5	1