Islamic countries and Maqasid al-Shariah towards the circular economy. The Dubai case study.

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Abstract— This paper aims to explore the economic, social, and environmental policies in Gulf countries. Despite the increased attention paid by scholars on circularity, there is no evidence about the relationship between the circular economy and Islamic countries. Using an explorative case study, this paper benefits from analyzing several information sources underlying the first link between circularity and Islamic countries. After an in-depth literature review, the authors present a useful comparison between the linear and circular economy concepts. Additionally, we emphasize a framework of policies and best practices adopted from Dubai, which merges several approaches applied towards the circular economy. Furthermore, this paper highlights the theoretical link between social entrepreneurs and Islamic pillars based on the Magasid al-Shariah business model. In conclusion, the article provides useful implications for researchers and practitioners, who in the future aim to investigate the relationship between Islamic systems and the circular economy.

Keywords-component; Maqasid al-Shariah; circular economy, Dubai, SDGs

I. INTRODUCTION

Some scholars state that the Islamic entrepreneur can be considered a social entrepreneur, as his work is based on three interconnected pillars, the pursuit of opportunities, socioeconomic or ethical aspects, and religion-spiritual aspects [1], [2].

In Islamic countries, Quran and Sunnah guide the entrepreneur's work by configuring him as a social entrepreneur [3]–[5] attentive to secular norms that influence and affect various aspects currently debated, such as the Sustainable development Goals (SDGs) [6], [7]. Islamic

countries often act as social enterprises at both micro and macro-level [1] with attention not only on economic development but also on social and environmental development where elements of the SDGs and Maqasid Al-Sharia coincide [8].

Currently, many Islamic states are based on a linear economy or a market economy, based on the extraction of raw materials, production and mass consumption, and the disposal of waste once the end of the product's life has been reached [9]. Many SDGs are oriented towards a type of circular economy designed to regenerate itself [10]–[12]. Therefore, the circular economy is an economic system planned to reuse materials in subsequent production cycles, reducing waste as much as possible [9], [13]–[15]. Population growth and the increasing intensity of demand for renewable and non-renewable energy suppliers have led to a request for global resources higher than those available, which must be resolved through a new approach [16]–[18].

Maqasid al-Shariah includes ethical aspects, impact-based investments, and asset management that can accompany change strategies required by the SDGs and the new paradigm linked to a new economic and managerial system of public policy and resource management [8], [19].

Although few Gulf countries invest in a new economic model that takes account of circular supply-chain, recovery and recycling, product life-extension, sharing platform, and product as a service, something is changing. They are also starting to consider sustainable policies due to environmental change [20]–[22]. However, some studies show that the Gulf countries have not yet adopted effective policies to obtain safe, inclusive, resilient, and sustainable cities[22]. The study we conducted

demonstrates that explicit policies' effectiveness in the Arab Emirates is adopted and follows theoretical, cultural, and religious models that lead to real change and a tangible impact on the city context.

Despite the importance of this theme for all humankind [23], there are not many analyzes of the economic, social, and environmental policies adopted in the Gulf countries in the literature. Therefore, the study explores a significant and virtuous case study that applies the circular economy and Magasid al-Shariah simultaneously, leading to the assumption of effective integration and union of the social, economic, and political aspects of an emirate. The study contributes to the two research streams by analyzing the micro and macro social, economic, and political level developed by the head of the UAE study. Although there are no studies on adopting the circular economy in Dubai, several policies could be read as an ongoing change towards this new economic approach. Different emirate strategies could be considered changes of attitude towards a circular economy; examples are the Dubai Plan 2021, which aligns with the UAE Vision 2021 and the Green Economic for Sustainable Development Initiative, Dubai Clean Energy Strategy (DCES) 2050[24] and DIES 2030.

After an in-depth literature review, the essay continues with the identification of the methodology framework used. Then, the results and discussion sections are provided. The last paragraph concludes the paper and offers future implications in this field.

II. LITERATURE REVIEW

A. The linear paradigm and impact, the changing paradigm

The current economic system is called the linear system [25], [26]. This system developed in several countries is based on taking, making, and disposing of mechanisms [27]. This mechanism is based on the extraction of natural resources that are already scarce, producing manufactured products and products sold to the consumer. Once consumed, they are transformed into waste. This leads to an increase in pollution and the suffering of resources and an inability to respond to global demand [17]. The paradigm of linear production is linked to satisfying the consumer's needs, with greater company efficiency and higher profits [28]. However, the expansion of demand leads to identifying renewable resources to respond to needs [29], [30]. In addition to the scarcity of resources, the linear economy leads to waste intensive [31], which includes wasted resources, wasted life cycle, wasted capabilities, and wasted embedded values. Wasted resources are not renewable and, therefore, are not kept for future generations. Wasted lifecycle provides products that end their life cycle after the first use exiting the market. Considering or wasted capabilities in the linear economy, products are not entirely used for the purpose. Embedded wasted values relate to materials and energies that have not been recovered. The world population is increasing in cities, and by 2050 the number will be so high that it will not be able to sustain current production [17], [32]. The linear economy paradigm conflicts

with the trend of the population and needs and requires new policies and alternatives.

A first alternative to the linear economy was defined in 1849. The Royal Society of Chemistry president mentioned that "[...] in an ideal chemical factory there is, strictly speaking, no waste but only products. The better a real factory makes use of its waste, the closer it gets to its ideal, the bigger is the profit" [33]. A first push is proposed to reuse waste. The change of the junction occurs with technological efficiency with a more sustainable approach linked to the waste cycle, and socio-economic contributions unities identify the main drivers in the circular economy new approach [17], [34]-[36]. The new method could intervene in the waste-intensive linear paradigm and the destructive effect that the linear economy has on our planet [37]. Several countries globally, including Dubai, are starting a circular economy process that considers the economic, social, and environmental limits of the linear economy [38]. To realize this aim is necessary to consider the difference between the linear economy and circular economy to map the countries' policies (Table 1).

TABLE I. COMPARISON BETWEEN LINEAR ECONOMY AND CIRCULAR FCONOMY

Linear economy	Circular Economy	
The linear paradigm's attitude towards nature and its resources	The circular paradigm focuses on making use of what nature is already	
are more toward forcing nature to produce more.	producing.	
The production behavior in the linear economy is considerably base on taking, make and waste.	The production behavior in the circular economy is significantly focused on reducing, reuse and recycle.	
The product life span is shorter in the linear economy, and they become outdated even when they are usable.	Extended product life span as new products can be used as useful raw material for other products.	
The linear economy's earning model is mainly the producers determining the price to be charged for each product.	In the circular economy's earning model, producers are charge not for the cost of the product but charge for the use of the product.	
The primary business model in the linear economy is based on monetary benefit.	The business model in the circular economy is a blend of financial, environmental, and societal benefit.	

The new economic approach generates five key elements to consider in developing a new business model based on the circular economy.

The first element concerns the circular supply-chain focused on promoting fully renewable, biodegradable, and recyclable materials with a longer life cycle and future reuse to produce new products [39], [40].

The second key element considers the recovery and recycling phases, which require recovering value from end-of-life products during the production process [41]. It concerns creating zero waste facilities where waste is treated, recycled, and converted into energy [16].

Furthermore, more considerable attention to the product life-extension would allow the materials to be used for as long as possible, making it possible to consider waste only when it is no longer possible to upgrade, repair, re-sell or rework them as products [42].

The fourth key point linked to the circular economy model is the development of sharing platforms. Communication between product owners with companies and individuals who intend to reuse them is guaranteed [43]. This development is connected to the diffusion and use of certain communicative technologies [44]. If we consider the long-life cycle of a product, it is not enough to sell the product a profit. Still, we must also consider that as the fifth essential element of the model, even the quality and durability to allow reuse or rental of the product once finished its usefulness for a subject [45]. Therefore, the new model considers environmental value, economic value, and business value based on the circular economy model to analyze the policy implemented. The new model can support the SDGs or guide some of the expected objectives [46], [47].

B. Magasid al-Shariah and circular economy

Magasid al-Shariah is known as the basis of human needs related to Islamic ideology and derives from the Quran and Sunnah. A response of needs through this ideology, according to Chapra [48], guarantees a more sustainable society and overall well-being. Al Ghazali reforms Maqasid al-Shariah into categories into five objectives on which human needs and interests are based [19], [49], [50]. The five fundamental pillars are therefore identifiable in Nafs (the human self), Din (religion), Aqal (intellect), nasl (posterity), and Mal (wealth). Religion guides the work of individuals according to Islamic principles, empowering the work of individuals. The human self-increases individuals' ability to interpret more based on more excellent knowledge; what is adopted in the scriptures can be taken in daily life. Posterity is the principle according to which it is necessary to respond to needs through civilization, this includes a moral development, respect for laws, of the family of peace, of health to have fallout from today's work on society in the long term. Wealth is accentuated to increase individuals and community; with health, it is possible to reduce income inequalities through Zakah. Walth also leads to a potential acquisition of better education, technological knowledge, and research efficiency.

Therefore, the general objectives of Sharia promote long-term well-being by establishing themselves as bases for human welfare [51]. The current linear economy paradigm focuses on short-term economic prosperity by maximizing growth. The other aspects of environmental protection and social development are not considered. Therefore, the standards highlighted by the circular economy highlight how considering the Islamic ideologies of Maqasid al-Shariah can guarantee above all in Islamic countries the application of a complete approach if wealth is only one linked with the linear economy paradigm, religion, the human self, intellectual, posterity bind and support the circular economy paradigm. Islamic banks are

also able, through Blended Murabaha, to support the circular economy's development according to the principle that the banks themselves finance the institutions pay the need for funds and the markup or profit margin.

Nevertheless, in this contractual structure, the business or entrepreneur can receive Qard Hasan whereby the enterprise only needs to pay back the principal amount. At the same time, the institution of compassion covers the markup. Therefore, Maqasid al-Shariah finds a capacity to respond to Sustainable Development Goals (SDGs) more than in other European contexts where faith does not guide choices from an ethical point of view [8], [52].

III. METHOD

Maqasid al-shariah consists of five main elements: protection of life, faith, intellect, progeny, and wealth. These elements are compared with human prosperity measurement elements to understand the socio-economic values better [19]. Nevertheless, the socio-economic well-being analyzed by the author is associated with the functional elements of a country. These elements deal with new approaches and processes linked to the limitation of available resources and the search for innovative strategies to reduce and regenerating resources based on consolidated social, cultural, and productive models [53], [54]. Therefore, the two research streams find a practical link and an overlap that requires confirmation through the case study as adopted in Biancone et al., 2019 [55].

The approach implemented envisages an integrated theory involving two theoretical perspectives that speak to different phenomena, but applying one theory to the domain of the other can lend novel insight [56]. The analysis to confirm the theory was conducted through a qualitative approach based on the case study [57] of Dubai. The protocol adopted were analyzed through a triangulation of information, official documents, public interviews, and reports [58] collected between 2002 and 2018. The first action that involved the City of Dubai with the practical policy is 2002. The study carries on elements highlighted in the literature and seeks through the Dubai case study to highlight implementations, shortcomings, or any features not highlighted in the research [59]. The validation of the theoretical approach based on critical elements of the circular economy and Maqasid al-Shariah takes place by studying the policies adopted [60]. The Dubai case study analysis is significant in that the Dubai Plan 2021 aligns with the UAE Vision 2021, Dubai Clean Energy Strategy (DCES) 2050, and DIES 2030.

Additionally, the Emirate declares its desire to apply the circular economy model by respecting the Maqasid al-Shariah principles intrinsic to the policy adopted. The population of Dubai is 3,217 million; the area that covers the Emirate is 4114 km2. The country's economy is developed, and it is among countries with an advanced economy [61].

IV. RESULT AND DISCUSSION

In the Emirates, where ethical principles are intrinsic to public, economic, and environmental management involving

all macro and microeconomic levels [62], the theoretical model presented finds evidence and development.

The Dubai Plan 2021 aligns with the UAE Vision 2021 and the Green Economy for Sustainable Development Initiative, Dubai Clean Energy Strategy (DCES) 2050 and DIES 2030. It aims to create new markets for circular goods, services and revenue by surfacing, supporting and connecting entrepreneurs and innovations through nationally led challenges and partnerships.

The intention to adopt policies of this type was made explicit for the first time during the eighth annual edition of the Emirates Green Building Council (EmiratesGBC) Congress gathered regional and international experts to discuss for the first time, the adoption of a circular economic model in the building industry and construction sector, in a bid to advance the UAE's sustainable development goals of Vision 2021. In 2014, the Dubai Government released Dubai Plan 2021 which aligns with the UAE Vision 2021 and the Green Economy for Sustainable Development Initiative and aims to position Dubai at the forefront with a primary focus on the happiness of residents, society, and economy, as well as smart and sustainable cities. Along with Dubai's plan to be the most sustainable city globally by 2020, the strategies above serve as tools to drive green buildings and sustainability in the Emirate. Additionally, Dubai Municipality applied the Green Building Regulations and Specifications (GBR&S) to governmentowned buildings in January 2011 and mandated it for all new buildings in Dubai starting March 2014. Based on the GBR&S, Dubai Municipality (DM) introduced the Al Sa'fat Rating System in September 2016 with four certification levels to strengthen the city's sustainable built environment.

Etihad ESCO was established in 2013 to create a viable performance contracting market for energy service companies (ESCOs) in Dubai. Along with other ESCOs, they aim to retrofit about 30,000 buildings by 2030 and generate 1.68 TWh energy savings and 5.64 BIG water savings by 2030. As of 2017, Etihad ESCO and other RSB accredited ESCOs have completed retrofitting 2,465 buildings. To support the retrofit growth, Emirates Green Building market's (EmiratesGBC) commenced its Building Retrofit Training (BRT) Program in August 2017, based on the EmiratesGBC Technical Guidelines for Retrofitting Existing Buildings. In October 2018, the Advanced Level BRT Program was launched, aimed at industry professionals to provide them with information on retrofit methods to support ongoing retrofit projects and streamline their technical capacity for more effective post-retrofit maintenance and preventive care. In January 2019, EmiratesGBC, in partnership with Dubai Supreme Council of Energy (DSCE), published a benchmarking report on (DIES) 2030, issued by Dubai Supreme Council of Energy in 2011, is to reduce the Emirate's energy and water consumption by 30% by 2030.

Additionally, it promotes diversification of fuel sources to include clean coal, solar and nuclear energy. DSCE developed a Demand Side Management Strategy (DSM) to supports Dubai's energy and efficiency plan, with TAQATI serving as the dedicated program management office. In 2018, DSCE

officially unveiled the 'My Energy, My Responsibility 'campaign to encourage responsible behavior to reduce Dubai residents' energy and water use. EmiratesGBC's commitment to advancing net-zero buildings in the UAE was done through a first-of-its-kind report. Defining Nearly Zero Energy Buildings in the UAE – 2017, which provides a definition for nearly zero energy buildings in the UAE and highlights the challenges and opportunities for the development of net-zero facilities in the UAE.

In 2018, EmiratesGBC formally established the Net Zero Centre of Excellence, a think tank and accelerator that provides a platform for the public sector, academia, civil society, and the private sector to learn and share net-zero knowledge buildings. To support Net Zero Buildings' uptake in the UAE, EmiratesGBC signed a partnership agreement with the International Living Future Institute to offer Zero Energy and Zero Carbon buildings certifications in the UAE. In 2018, DSCE launched a government-backed campaign, E-Sayvara, under the Dubai Green Mobility Strategy 2030 to increase the number of electric vehicles driven by the private sector and residents in Dubai. Dubai Electricity and Water Authority (DEWA), the Roads and Transport Authority (RTA) provide incentives from 1 September 2017 to 31 December 2019 to encourage electric vehicles' public use, including free open vehicle charging, free assigned parking, and renewal fees, among others. In October 2018, DEWA announced that it had completed the second phase of the EV Green Charger Initiative, increasing its number from 100 to 200, helping to achieve Dubai's carbon abatement strategic target of a 16% carbon reduction by 2021. The RTA is in the process of converting 50% of Dubai taxicabs to hybrid vehicles by 2021. They are also developing 900 kilometres of cycle paths per the Dubai Bicycle Master Plan. Additionally, the Dubai Metro's Red Line is currently being extended to the Dubai Expo 2020. In 2018, Dubai signed the C40's Advancing Towards Zero Waste Declaration to cut the amount of waste generated by each citizen by 15% by 2030, reduce the amount of waste sent to landfills incinerate 50% and increase the diversion rate to 70% by 2030.

Since 2002, the Clean-Up UAE campaigns, launched by Emirates Environmental Group (EEG), has brought together individuals, families, and organizations from both public and private sectors to participate in cleaning, waste segregating and recycling campaigns. In 2018, Dubai signed the C40's Advancing Towards Zero Waste Declaration to cut the amount of waste generated by each citizen by 15% by 2030, reduce the amount of waste sent to landfills and incineration by 50% and increase the diversion rate to 70% by 2030. Since 2002, the UAE campaigns, launched Environmental Group (EEG), has brought together individuals, families, and organizations from both public and private sectors to participate in cleaning, waste segregating and recycling campaigns. The report forms part of Dubai's commitment under the Building Efficiency Accelerator (BEA) program of undertaking a demonstrable project to accelerate the uptake of energy efficiency in the Emirate by assessing and benchmarking the performance of hotel, school, and shopping mall buildings. Under Dubai's commitment to the BEA, RSB

Dubai is also developing an energy labelling scheme for hotels, offices, and residential buildings. One of the main objectives of the Dubai Integrated Energy Strategy Dubai Clean Energy Strategy (DCES) 2050, launched in 2016, aims to provide 75% of the Emirate's energy through clean energy sources and strives to make Dubai a global centre of a green economy with the smallest carbon footprint in the world by 2050.

One of the main pillars of DCES is Mohammed Bin Rashid Al Maktoum Solar Park, one of the region's most ambitious renewable energy projects. It will have an installed capacity of 5,000MW by 2030. To encourage installing micro-solar systems, DEWA also launched its Shams Project to promote installing photovoltaic solar panels on residential and commercial buildings and generate electricity on-site. The UAE Energy Strategy 2050, a federal initiative announced in January 2017, also aims to increase clean energy contribution to 44% in the total UAE's energy mix by 2050. Added to this are specific and projects launched during the last World Economic Forum. Scale 360 is the first project that the emirates supported through a partnership to cut the amount of waste produced. Scale 360 is affiliated with the Platform for Accelerating the Circular Economy. It aims to create new markets for circular goods, services, and revenue by surfacing, supporting, and connecting entrepreneurs and innovations through nationally led challenges and partnerships. The idea is to help them scale up solutions in collaboration with government ministries, impact investors, experts, companies.

Another project is launched in Ras Al Khaimah, where camel manure is used to produce fuel in the Emirate's cement factories. Since the project started in 2018, over 100,000 used 6,000 camel manure has been hijacked per fuel product, contributing to the consumption of 18,000 fuel costs as well as reducing the cost of fuel needed for the cement factory.

In the process of change towards the circular economy, Islamic finance and the contractual (blended Murabaha) and social [63] characteristic elements are also considered, which can modify the business model at the micro-level, making it consistent with the economic approach [64]–[66]. Starting from the circular economy's assumptions on Dubai's policies, it is possible to identify first the distinctive aspects of the model. A recovery and recycling system has been adopted to manage waste better. This aspect is also linked to the SDGs 12 objective to guarantee sustainable production and consumption models which identifies the implementation in point 12.3 halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses. The use of sharing platform is applied through partnership and Scale 360, although to date, there is still no evidence of the impact of its adoption. The durability of the products used is focused more on building construction material than on consumer goods. There is no trace in the circular supply-chain policy that could be fully introduced in the country in association with the other planned adoptions. The extension of the life of the products has also not been fully defined in the policies adopted unless we refer to the material and type of buildings produced.

Nevertheless, the circular economy's adoption finds support in the application of the Magasid al-Shariah model, especially if we consider the energy plan. Human resource development, the presence of professionals dedicated to developing the energy plan, 1935 LEED Credentialed Professionals (UAE), and the Building Retrofit Training plan (BRT) Programs are based on prosperity principles that also push individuals towards the human self. A rich country's opportunities to invest in its professionals enrich the economic microsystem and lead to a wealth of resident inhabitants. Self is identified as a public investment aimed at growth in the energy technology adopted. The use of clean energy made up of micro-solar systems on buildings and Mohammed Bin Rashid Al Maktoum Solar Park with a reduction in consumption by hotels, schools, and shopping centers encourages the policy's effect. Social development is guaranteed by an almost entirely Islamic population who base their actions considering the future longterm impact. This also falls on the exploitation of energy and the use of resources, which finds its foundation already in religious work. The development of the individual and financial means in support of the individual and businesses allows, thanks to religious principles, to set up a good social support system and development, which also brings with it the principles of circular economy envisaged by the policies of the Emirate. The country's economic growth based on wealth and posterity is guaranteed in turn by the attraction of funds and by the investment of new technologies such as hybrid vehicles in line with wealth. Efficiency in the use of resources with a reduction of carbon dioxide and the use of clean energy is also based on the principles of wealth and posterity. The removal of dependence on hydrocarbons is one of the keys of the private sector. It pushes towards a further development from that promoted by the linear economy by implementing a change in entrepreneurship, economics, and innovation. Intellect and posterity are the principles applicable to this type of change.

Let's consider the 17 goals divided into 169 targets, although Muslims are reluctant to identify goals not defined by non-Muslims [67]. It is possible to notice several applications related to the circular economy and the Maqasid al-Shariah.

The first goal, end of poverty in all its firms everywhere, finds application in supporting the poorest through religion and charity with Zakah, also guaranteeing the principle of prosperity. The circular economy supports the principle thanks to a reduction in resources and the release of economic value.

The second goal "Zero Hunger" is based on the principle of prosperity and guides in reducing waste. As we have already said, the four-goal quality education objective also applies through dedicated training programs linked to sustainability and the implementation of policies. Goal four is based on the principle of prosperity and self. Goal six, clean water and sanitation and goal seven affordable and clean energy are the two that finds the most support from the policies and is based on the prosperity and possibility of guaranteeing water for the primary needs of the human need in the future and a reduction of waste generated by fossil oil energy. As also highlighted the goal nine industry, innovation, and Infrastructure find the complete application based on wealth and prosperity. The

whole approach is evident in goal eleven, aimed precisely at supporting the goals eleven sustainable cities and communities, the circular economy, platforms, twelve responsible consumption and production, thirteen climate action with the reduction of resources is in line with the principle of prosperity.

The new model is described in the table 2.

TABLE II. MODEL OF CIRCULAR ECONOMY BASED ON MAQASID ALSHARIAH

	Circular Economy	Maqasid al- Shariah	Final model
Resources	Use of resources present in nature today[29].	Enhancement of resources with a medium-long term perspective [8].	Actions capable of mitigating food waste, resources (i.e. water). New models of green innovation.
Production	Sustainable production in accordance with available resources [43].	Increased productivity with less use of resources. Waste minimization [8].	New innovative business models that include business development to human, social and economic development.
Garbage	Use of production, processing and domestic waste [33].	Enhancement for medium / long term well- being[8].	Sustainability in accordance with SDG 9 on the industry with the management of waste wealth.
Training	Training aimed at sustainability (i.e. waste of food or energy) [29].	Human development on issues of challenge and interest in the well-being of the community[20, pag. 7].	Creation of highly specialized professionals on the circular economy and bearers of wisdom.
Food	Use of waste, even with sustainable production methods [29].	Help for environmental and human enhancement through exchange platforms between capital gaining entities [4].	"Zero Hunger" objective with enhancement and targeted enhancement programs.

V. CONCLUSION

The analysis conducted highlights that the Emirate of Dubai can be considered a social entrepreneur, aimed in many respects at developing the circular economy through the three pillars of the Islamic faith [1]. The policy adopted from an environment value perspective increases health by decreasing pollution, natural resources, the maximum consumption of water and other energies.

The economic value generated by a sustainable approach linked to the circular economy foresees the world to generate \$ 4.5 trillion in additional economic output by 2030 in the world. If supported by adequate financial instruments, it can support the country's work and economic growth.

The case study identifies the overlap and integration of two theoretical strands that support each other within the context, justifying the proposed model.

The business model based on Magasid al-Shariah will be able to mitigate environmental risks by increasing efficiency and productivity, green innovation, and innovative business models to reducing waste by minimizing the use of value. The circular economy model based on Magasid al-Shariah involves human, social, economic, and environmental development. The strengths of the policy implemented by Dubai include economic growth, innovative business models, increased competitiveness between professionals and companies, reduction of operating costs related to a reduction in materials, future sustainability of resources, increase in environmental conditions associated with the issue of CO2, more significant relationships linked to a circular economy market that brings together the players through platforms and the creation of new jobs and highly qualified and specialized professionals. The circular economy based on the principles of Maqasid al-Shariah could guarantee the achievement of SDGs 1,2,4, 6,7,8, 9, 11,12, 13 and 14.

The study provides emirs and public governors of the Gulf countries with a first theoretical and practical model that can lead to social, economic, and ethical impact and well-being for the population. The professionals involved in macro and micro areas can orient the system more towards circular economy processes, although a commitment and first virtuous results are already evident. The change in the economic and social ecosystem will take several more years to allow for real change, although several SDGs are currently being achieved thanks to the new policies.

Despite this, barriers to the circular economy's complete development are still identified, identifiable in the absence of circular supply-chain product life-extension also linked to consumer goods and not only to infrastructures. Currently, the Islamic finance system is a necessary criterion in the development of the circular economy. However, policies do not consider it as an element within the model development system. The same theory-based analysis approach can be conducted to other Islamic states to highlight strengths or weaknesses adopted to implement the circular economy and SDGs. Future studies will have to investigate more on what criteria the circular economy's application could be increased in light of the scientific evidence of the model and the reported impact.

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