

# The components of intellectual capital and organisational performance in *waqf* institutions: evidence from Algeria based on structural equation modelling

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## Abstract

**Purpose** – The purpose of this paper is to investigate the relationship between the sub-components of intellectual capital and organisational performance in waqf institutions in Algeria.

**Design/methodology/approach** – Data was collected through structured questionnaires from a sample of 193 waqf employees working in 23 different provinces in Algeria and analysed using partial least squares – structural equation modelling (PLS-SEM) software to test the path modelling and the relationship between the instruments.

**Findings** – The results of this research show that human capital, structural capital and spiritual capital have a positive and significant relationship with organisational performance. However, relational capital, social capital and technological capital did not demonstrate any kind of role in the context of waqf institutions in Algeria.

**Practical implications** – The findings of this research are of great importance for waqf institutions in Algeria, as they provide a comprehensive screening with regard to organisational performance of these institutions through the lens of intellectual capital. The findings help waqf managers and policy makers consider effective solutions for the weaknesses and challenges impeding the performance of waqf institutions, in the hope of retrieving their role in serving and developing societies.

**Originality/value** – In the existing body of literature, there is a lack of research focusing on intellectual capital in the context of religious non-profit organisations particularly waqf institutions. Thus, this research adds to the body of knowledge on intellectual capital while highlighting its role and importance within the waqf industry, particularly in the context of Algeria. This research is considered among the primary attempts to investigate the impact of intellectual capital components on the organisational performance of waqf institutions in Algeria.

**Keywords** Intellectual capital, Organisational performance, NPOs, Waqf, Islamic finance, Algeria

**Paper type** Research paper



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## 1. Introduction

Most of the available literature on intellectual capital (IC) has focused on studying for-profit organisations across different sectors in both developed and developing nations. Most researchers have stressed the strong link between effective management of IC and the success of organisations (Kong, 2008; Khalique *et al.*, 2015; Dalwai and Salehi, 2021). Because of the widespread recognition of the positive role played by IC in paving the way for organisational success in the for-profit industry, the latest research focuses on exploring the concept of IC in the non-profit industry. This was supported by the increasing importance of the non-profit sector across the globe (Salamon, 2010). For instance, Kong (2003, 2007) was among the pioneering researchers who called for using IC as an effective strategic management tool of non-profit organisations (NPOs). This approach was corroborated by other researchers (Benevene and Cortini, 2010; Adnan *et al.*, 2013; Mohd Noor *et al.*, 2015; Bontis *et al.*, 2018; Benevene *et al.*, 2019; Buonomo *et al.*, 2020; Laallam *et al.*, 2020b; Baig and Ndiweni, 2021).

However, deep focused research into NPOs found a lack of IC research within non-profit religious organisations, in particular, the waqf industry. *Waqf* institutions are best understood as NPOs that are responsible for managing endowment funds and properties in Muslim countries (Laallam *et al.*, 2020b). In more detail, a waqf is a donation made by a Muslim under Islamic Law to a fund manager called *mutawalli* or *nazir*, who is responsible for generating profits that are subsequently used to support socioeconomic development (Sukmana, 2020). Despite the significant contributions researchers have made in other sectors, the concept of IC is still in its early stages in the waqf industry. There is a growing trend focusing on maximising the socioeconomic aspects of IC (Konno and Schillaci, 2021), which is consistent with the methodological foundations of waqf institutions.

Studies dealing with waqf institutions usually highlight several areas of concern, such as the ineffectiveness of waqf properties in many aspects, the insufficiency of available information regarding *awqaf* (plural of waqf), such as lack of accountability and regulatory traceability, lack of accounting reporting and disclosure practices, absence of an organisational and institutional spirit, lack of supportive regulations, talents and innovations and poor achievement of organisational and societal goals (Ihsan and Septriani, 2016; Yasmin and Haniffa, 2017; Shabbir, 2018; Mohd Thas Thaker and Allah Pitchay, 2018; Sulaiman and Alhaji Zakari, 2019; Laallam *et al.*, 2020b; Osman and Agyemang, 2020; Ascarya *et al.*, 2022). This is reflected in the absence of a waqf governance system, as well as the general disregard for knowledge management and IC in these institutions (Daud, 2019; Laallam *et al.*, 2020a). The existence of IC is, therefore, critical to waqf institutions and NPOs, as IC involves intangible knowledge assets that can help these institutions accomplish their goals, thereby increasing their efficiency and effectiveness.

There is a great need to study the concept of IC in waqf institutions to investigate the extent to which the IC constructs contribute to organisational performance (OP). This study deals with the case of Algerian waqf institutions. It is based on the theoretical argument that IC is an effective strategic management tool for NPOs (Kong and Prior, 2008). It is also based on previous studies such as Khalique *et al.* (2013, 2015, 2020) involving variables related to IC components, such as human capital (HC), structural capital (STC), relational capital (RC), social capital (SC), technological capital (TC) and spiritual capital (SPC), in the relationship with enhanced OP.

Dr Abdelwahab Bertima, the former Director General of the Algerian department of *awqaf*, zakat, *Haji* and “*Umrah*”, addressed a global conference of products and applications of innovation and financial engineering, held in Algeria 2014, in collaboration with the International *Shariah* Research Academy for Islamic Finance (ISRA). He noted that the number of waqf properties in Algeria is estimated to be around 10,000. He also stated that almost 92% are considered income-generating assets, representing various sectors of the economy such as

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housing and services, which contribute to the financing and revitalisation of the economy (Bertima and Abdeli, 2014). These assets are estimated to be worth US\$220m, according to the International Institute of Islamic Waqf (IIW) (Laallam and Kassim, 2021).

Despite these opportunities, the waqf sector in Algeria is under-developed and requires urgent modernisation to be able to contribute effectively to societal and economic development (Masdur and Mansuri, 2008; Laallam *et al.*, 2021). There are also numerous studies denouncing the problem of institutional inertia that excludes the waqf institutions from societal and economic development (Mansuri, 2013; Al-Snoui, 2019; Hadadou and Al-Nahwi, 2019; Laallam *et al.*, 2020a).

Little is known about the IC in waqf institutions, particularly in Algeria, which has many waqf properties with great economic and social potential. Like other developing countries, Algeria is often dependent on a rentier economy based on oil, gas and other natural resources. However, the economy has been hit by a series of crises, such as the plummeting oil price crisis, which has weighed heavily on citizens' economic and social lives. Algeria has taken constructive steps to move towards a knowledge economy, especially after the historic popular movement of 2019. As a result, the measurement and management of IC is not yet fully understood or practically realised in Algerian institutions. Therefore, it is very important to investigate the relationship between IC and the OP of waqf institutions to determine the extent to which IC has an impact on the operation of this sector in Algeria.

The revival of the development of the waqf sector in Algeria is one of the most important priorities that should be given attention, because of its importance and close relationship with the social, economic and political aspects of the country (Laallam *et al.*, 2021). The waqf sector significantly contributes to alleviating poverty and economic pressures, which makes it an effective contributor to achieving stability and mitigating economic crises and shocks (Kuanova *et al.*, 2021). In addition, it functions as a partner in achieving comprehensive development in society as a third sector in the state (Laldin and Djafri, 2021; Lamido and Haneef, 2021). Hence, there is a great need to study IC among Algerian waqf institutions. The main objective of this study is to investigate the relationship between the components of IC and the OP of waqf institutions in Algeria.

To the best of the authors' knowledge, this study is the first of its kind in terms of dealing with the topic of IC in the waqf sector in Algeria. Therefore, it can provide a foundation for future studies on the strategic management of waqf institutions. In addition, this study contributes to the literature on IC in many respects. Firstly, it contributes to developing the theory of IC by confirming the relationship between the components of IC and OP in the non-profit sector. Secondly, it focuses on studying IC in the waqf industry, which has rarely been investigated. Thirdly, it supports initiatives that focus on IC innovations beyond corporate boundaries, leading to a positive socio-economic impact by an organisation. Fourthly, it validates the adapted integrated model of IC developed by Khalique *et al.* (2013), for the first time in Algeria as a developing country. Studying this model will expand knowledge of the importance of other components of IC such as SC, TC and SPC. Fifthly, it provides empirical evidence on the case of religious NPOs, as most studies dealing with NPOs follow a qualitative approach. Lastly, it offers practical implications to waqf managers and policy makers in the state, concerning the importance of considering and building strong IC in the strategy implementation of the waqf sector in Algeria.

The remaining parts of this study are organised as follows. Section 2 presents the relevant literature review and develops hypotheses. Section 3 explains the research methodology and provides the research findings. Section 4 presents the discussion. Section 5 illustrates research implications. Finally, Section 6 draws conclusions and recommendations for future research.

## 2. Literature review and hypotheses development

In today's knowledge-based economy, the value and quality of each NPO depends mostly on the skill and proficiency of its employees, particularly on their ability to take advantage of their existing knowledge and experiences to deliver services and satisfy individuals. This makes knowledge a main source of gaining competitive advantage, as well as achieving sustainability and organisational growth (Benevene *et al.*, 2019). One way in which knowledge can be conceptualised is through the study of IC (Roos and Roos, 1997; Bontis, 1998). IC is a new topic that is piquing the interest of businesses, whether they are profit-driven or not (Kong and Thomson, 2006). IC is a valuable resource that NPOs should consider to effectively develop and implement corporate strategy, achieve and sustain a long-term competitive advantage and improve OP (Benevene *et al.*, 2017; Veltri *et al.*, 2017; Bontis *et al.*, 2018). According to Kong (2010c), IC can be used as a conceptual framework for successful strategic management implementation of NPOs' goals. IC, in particular, can play a strategic role for waqf institutions in achieving the economic and social missions for which they were founded, as well as satisfying the general interests of local communities (Laallam *et al.*, 2020b). A substantial body of literature supports the positive relationship between IC and the OP and success of NPOs (Adnan *et al.*, 2013; Mohd Noor *et al.*, 2015; Bontis *et al.*, 2018).

### 2.1 Intellectual capital management among waqf institutions

Although the development of IC was initially associated with large profitable companies based on a robust technological infrastructure, the IC model has subsequently gained the interest of practitioners and scholars dealing with waqf institutions globally (WBG, INCEIF and ISRA, 2019; IRTI, 2020). The survival and competitive success of an organisation depends largely on the strategic management of its IC, as compared to its financial resources, which could lead to the success of new strategies (Kong, 2010b), and this is the case of most NPOs, including waqf institutions. *Waqf* institutions are now required to use their existing organisational resources and generate new resources effectively, to create new opportunities and to shape the organisation's future environment (Laallam *et al.*, 2020a). This involves new knowledge and skills in, but not limited to, strategy formulation, human resource management and public relations (Kong and Prior, 2008).

Notwithstanding this, the literature on IC in waqf institutions is still underdeveloped. This calls for further deepening our knowledge on how waqf institutions manage and capitalise on their IC resources (Laallam and Kassim, 2021). This is also true because it is difficult for waqf institutions to use for-profit OP measures, as they are characterised by informal decision-making processes, limited financial and human resources, non-hierarchical structures and weak regulatory frameworks (Laallam *et al.*, 2020a). Furthermore, it is evident in the related literature that there is a lack of studies on the impact of IC on the OP of waqf institutions globally, and particularly in Algeria. Therefore, there is a pressing need to promote the concept of IC and conduct more research into its applications in Algerian NPOs to achieve a competitive advantage and maximise societal and economic impacts.

Most earlier studies classified IC into three main components: HC, STC and RC (Stewart, 1997; Bontis, 1998; Kong and Prior, 2008). Some researchers have proposed different models of IC to gain a more comprehensive view of the intangible resources of an organisation (Brooking, 1996; Sveiby, 1997). For instance, Khalique *et al.* (2013) have proposed an integrated IC model to better understand the practice and performance of IC within organisations across sectors. Their model is based on six IC components: HC, STC, customer capital, SC, TC and SPC. Due to the comprehensive nature of this model, many researchers

have adopted it to investigate the impact of IC in the SME sector in developing nations (Hashim *et al.*, 2015; Khalique and Mansor, 2016; Khalique *et al.*, 2015, 2018, 2020). They confirmed the validity and reliability of this model in measuring IC within their territories. Most importantly, they confirmed the significant impact of IC on the performance of the organisations under study.

The integrated IC model of Khalique *et al.* (2013) is used in this study for a variety of reasons. This study deals with waqf institutions, which are religious in nature and which are socioeconomic-driven organisations. Moreover, it examines the case of religious NPOs in Algeria as a Muslim developing nation. Many researchers have called for the inclusion of other concepts and determinants of the components of IC, which provides a more comprehensive and clearer picture of the human and social aspect in organisations. Kamaluddin *et al.* (2019) conducted a study to identify the HC constructs related to the performance of Islamic microfinance organisations in Malaysia using a mixed methodology. Based on interviews with scholars and experts, they proposed an extended model of HC that is relevant to Islamic organisations. They included spiritual values as another construct of HC apart from knowledge and competency. The empirical findings showed that spiritual values are key elements in organisational culture and contribute significantly to organisational success.

Rahman *et al.* (2021) considered the inclusion of religious capital as one of the IC components in their study. Investigating the role of IC on entrepreneurial opportunity recognition in the SME sector in the Sultanate of Oman, they found that STC, RC and SPC all have significant impact on recognition of entrepreneurial opportunity in the country. However, the results did not show any significant relationship between HC and recognition of entrepreneurial opportunity. In addition, Kwon (2009) emphasised that advanced measurement of HC should take into account the concept of human development, with a focus on SC. An individual's SC is closely linked to their HC, which focuses on the knowledge stock, such as communication between partners rather than isolated situations.

In the NPO sector, several researchers found that IC has a significant impact on OP. Bontis *et al.* (2018) conducted an empirical investigation of cooperative social enterprises operating in the non-profit sector in Italy. In their study, STC was found to be an insignificant contributor compared to other dimensions of IC. In the context of religious organisations, Adnan *et al.* (2013) argued that IC has a positive influence on the performance of zakat institutions in Malaysia. In their study, HC and RC appeared as significant contributors to OP, unlike STC.

Laallam *et al.* (2020b) stressed the importance of realising IC for achieving objectives and enhancing the performance of waqf institutions. They argued that waqf has to be seen as a holistic system that contributes to the societal and economic development of communities. This is because waqf is a unique and flexible activity that can be integrated with almost all other NPO activities, such as social life, education, health care and religion. In the context of higher education institutions, Tjahjadi *et al.* (2019) found that IC plays a significant role in improving OP. They argued that better OP of higher education institutions would lead to better quality of life in the society. Their results proved that IC partially mediates the relationship between the performance management system and OP of higher education institutions in Indonesia.

King (2004) urged NPOs to generate and mobilise SC to achieve organisational goals. The author stressed the importance of SC in the operations and activities of NPOs. Developing strategic partnerships, improving community relations, raising philanthropic support and funds, engaging in advocacy and, most importantly, creating a shared strategic objective and vision within the organisation and its employees are all priorities. Earlier studies on

NPOs did not use the integrated IC model of [Khalique et al. \(2013\)](#) to measure the different components. Therefore, it is in the best interests of this research to use this model to better investigate the impact of IC on the OP of waqf institutions in Algeria.

### 2.2 *Waqf institutions and socioeconomic development*

*Waqf* institutions are known as NPOs that are responsible for managing endowment funds and properties in Muslim countries ([Laallam et al., 2020b](#)). Throughout Islamic history, places of religious worship, for example, mosques, as well as schools, universities, hospitals, public wells and even infrastructure such as roads, have been funded by private individuals through *awqaf* ([Zuki, 2012](#); [Abdullah and Saiti, 2016](#)). The Hijaz (modern-day Saudi Arabian) railway is a well-known example of a private waqf, and there is also a historic case of a private provision of a lighthouse, the prototype of public benefit, via waqf ([Ochsenwald, 1976](#); [Moh'd et al., 2017](#); [Saiti and Sarea, 2019](#)). More importantly, waqf assets have been instrumental in providing social and economic safety valves through their role in promoting religion, education, shelter, health, food security and rural–urban transformation. In the tenth century, the waqf was an effective vehicle for financing social economic development in Muslim societies, such as the Middle East and North Africa ([Singer, 2008](#); [Mohsin et al., 2016a](#); [Saiti et al., 2021](#); [Uluyol et al., 2021](#)). The other studies in waqf the readers can refer to are [Asni et al. \(2020\)](#), [Salleh et al. \(2020\)](#), [Talib et al. \(2020\)](#), [Kuanova et al. \(2021\)](#), [Medias et al. \(2021\)](#), [Hapsari et al. \(2021\)](#), among others.

Today, the role of *awqaf* in some Muslim countries is limited to purely religious institutions, such as mosques, cemeteries and some religious schools. These waqf assets are typically administered by a waqf ministry, which was created for this purpose. However, in other countries such as Singapore, South Africa and Kuwait, waqf plays a significant role in diverse kinds of social services ([Laallam et al., 2020a](#)). There are several initiatives, also promoted by independent entities such as the Islamic Development Bank (IDB), to revive waqf as a tool for poverty alleviation and to include waqf in development strategies such as poverty reduction plans ([Shirazi, 2014](#); [Mohsin et al., 2016b](#)).

Despite its overwhelming role in supporting social, economic, cultural and religious purposes ([Mohsin et al., 2016a](#)), previous studies have shown that the history of waqf has been tempestuous and not encouraging ([Çizakça, 1998](#); [Bremer, 2004](#)). Most waqf institutions and properties have been, and still are, subject to mismanagement, corruption, abuse, misuse and total neglect ([Laallam et al., 2020b](#)). Therefore, there is an urgent need to develop, adopt and introduce new managerial methods and concepts that might help waqf institutions improve their performance from different aspects and overcome the existing obstacles and challenges. Therefore, this study is an attempt to visualise the performance of waqf institutions through the lens of IC.

### 2.3 *Waqf institutions in Algeria*

When researching the history of Algerian *awqaf*, before the colonial era, particularly during the Ottoman period, it has been found that the waqf system, in general, and waqf institutions, in particular, have played an important role in community life, where the *awqaf* provided important positions and jobs, even outside the religious sphere ([Joseph, 2014](#)). This is in addition to their contribution to helping the poor and needy and alleviating their burdens inside as well as outside the state, such as the *awqaf* of the two Holy Mosques, promotion of education, provision of public services, repairing roads, spending on forts ([Masdur and Mansuri, 2008](#); [Ascarya et al., 2022](#)). However, the Algerian waqf institutions experienced a huge retreat during the colonial era, when the French colonisers aimed to confiscate *awqaf* and belittled their effective role in the community. After independence in

1962, there have been modest initiatives to upgrade waqf properties, and attempts to recover the lost ones, but all these efforts were considered weak compared to the size of the waqf properties in Algeria during the Ottoman period (Masdur and Mansuri, 2008).

Currently, in Algeria, waqf properties and all related matters are under the supervision of the Ministry of Religious Affairs and *Awqaf* (MRAA) or specifically, the central administration in the MRAA located in the capital, Algiers, which is under the direct control of the MRAA (Laallam *et al.*, 2021). In Algeria, there are 48 Directorates of Religious Affairs and *Awqaf* (DRAA), one in each province of the country. They are regarded as an abridged version of the MRAA, in which they have small offices and departments representing specific tasks devolved by the ministry. They oversee managing zakat funds, waqf properties, pilgrimage (*Hajj*) and *Umrath* matters and other religious matters in each of the 48 provinces of the country. At every DRAA, there is a separate department dedicated to the collection, disputes, management and investment of waqf properties. All of these DRAAs are directly linked to the MRAA located in the capital (Laallam *et al.*, 2021).

#### *2.4 Intellectual capital and its sub-components*

IC has been identified as a set of intangible resources, capabilities and skills, technology and customer relationships that drive OP, value creation and sustainable competitive advantage for organisations (Edvinsson and Malone, 1997; Roos and Roos, 1997). IC is also known as the newest invisible asset, the most widely used definition of IC is “knowledge that is of value to an organisation”. Based on this definition, it is suggested that the management of knowledge generates IC. Following the work of a number of scholars in this field, there exist a number of definitions and classifications of IC, but most include three interrelated, non-financial components or core components, namely, HC, RC and STC (Kong and Prior, 2008; Bontis *et al.*, 2018; Benevene *et al.*, 2019). This study adopts the classification of Khalique *et al.* (2013), as it investigates IC capital in waqf institutions in Algeria.

HC refers to professional initiatives related to training, education and other procedures aimed at enhancing workers’ knowledge levels, abilities, skills, social assets and values, which result in improving employees’ performance and satisfaction, and eventually the firm’s performance (Landau, 2009). RC is also referred to as customer capital or external capital. It includes the organisation’s relationships and network, knowledge about customer profiles and satisfaction and company loyalty, in addition to long-term information about suppliers, new customers and business combinations. RC also includes the marketing channels that companies develop through performing business activities (Bontis *et al.*, 2000). STC consists of all non-human resources that belong to the organisation, such as databases, process manuals, organisational charts, infrastructure, innovation, communication systems, strategies (Bontis *et al.*, 2000). It acts as an enabler for HC and RC, as it supports and facilitates an organisation’s operations, resulting in enhanced performance (Kong and Prior, 2008; Nawaz and Haniffa, 2017).

SC or cultural capital refers to an organisation’s standards that play a vital role in shaping the quality and quantity of the community’s social interactions among people who contribute effectively to economic and social development and well-being (Grootaert and Van Bastelaer, 2001). It is regarded as the glue that strengthens and holds social institutions together. In other words, SC is based on corporate responsibility towards fairness, transparency, honesty and ethics (Nahapiet and Ghoshal, 1998). TC is regarded as a combination of intangible assets, which depend mainly on innovations, research and development (R&D). It is argued that TC is a vital contributor and element of IC, as it has a positive effect on the performance of organisations, especially in the knowledge-based economy (Khalique *et al.*, 2015).

SPC refers to the spiritual, religious beliefs and ethical practices that have a measurable effect on individuals, institutions and communities (Anwar *et al.*, 2020). It is also defined as the intangible knowledge, faith and emotion embedded in the minds of individuals and in the heart of the organisation, which includes vision, direction, guidance, principles, values, happiness, satisfaction and culture (Ismail, 2005; Hassi *et al.*, 2021). Spiritual and behavioural capital play a vital role in improving corporate performance and offer advantages for several stakeholders (Neubert *et al.*, 2017; Rahman *et al.*, 2021).

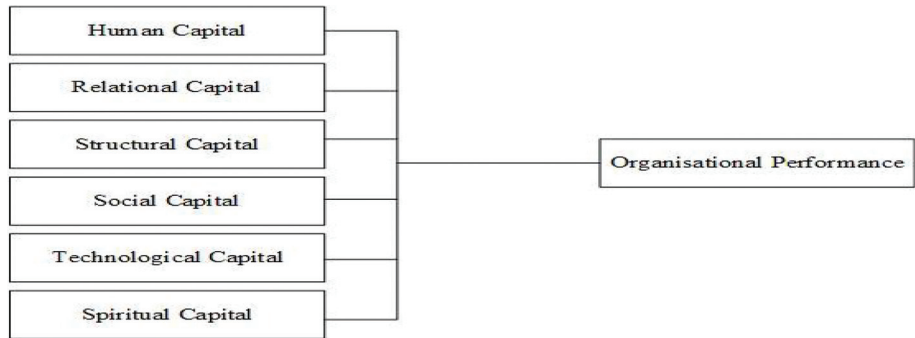
### 2.5 Theoretical framework and research hypotheses

Most previous studies, such as those conducted by Adnan *et al.* (2013), Mohd Noor *et al.* (2015), Bontis *et al.* (2018), Iqbal *et al.* (2019) and Tjahjadi *et al.* (2019), in the non-profit sector have indicated a strong and positive relationship between the elements of IC and OP. Some researchers, such as Adnan *et al.* (2013), Mohd Noor *et al.* (2015) and Bontis *et al.* (2018), found that HC and RC have significant impact on the performance of NPOs, whereas STC does not. Benevene *et al.* (2019), on the other hand, studied Italian non-profit small and medium socio-cooperatives using a qualitative approach and found that STC was a valuable dimension for OP. Some authors attribute the reason for the lack of consensus regarding the measurement of STC, or for the differences in its determinants, to the diversity of sectors being studied. This could be one of the reasons for the dearth of research on the impact of STC on NPOs (Buonomo *et al.*, 2020). Due to contradictions in results, this study aims to investigate the impact of IC components on the performance of waqf institutions in Algeria.

Kong (2003) urged non-profits to use IC to ensure the success and implementation of strategic management. The management of IC responds to the characteristics of NPOs as it increases their intangible resources, which results in maximising the services provided to society. Kozak (2011) indicated that the concept of IC is still in its development stage, and there is no standard definition to define its subcomponents. Marti (2007) also noted that the development of the IC theory is based on the ideas and guidance of influential researchers in the field such as Nonaka (1991), Bontis (1996), Edvinsson and Malone (1997) and Stewart (1997). This is led to the foundations of the theory of IC, whereby a set of intangible factors determine the performance of organisations. Later, Khaliq *et al.* (2013) proposed an integrated model based on the theory of IC to cover other aspects of intangible factors affecting the performance of organisations. Their model was adopted and successfully validated by many researchers, academicians and practitioners in developing countries (Hashim *et al.*, 2015; Khaliq and Mansor, 2016; Khaliq *et al.*, 2015, 2018, 2020; Laallam, 2020). The integrated model of IC is based on six components, namely, HC, RC, STC, SC, TC and SPC. In this study, these components are used to investigate their impact on the OP of waqf institutions in Algeria. Figure 1 depicts the conceptual framework of this study.

In the context of NPOs, HC is given great importance because of its close relationship with the achievement of organisational goals. The stock of competences, professional education, personality attributes and knowledge embodied by human resources represent a source of innovation and new capabilities that enhance the OP of NPOs (Baig and Ndiweni, 2021; Laallam and Kassim, 2021). The inability to attract experienced and skilled volunteers who have constant motivation and a passion for work and learning can represent a major hindrance to the development of an NPO and the performance of its organisational tasks (Bloice and Burnett, 2016). According to Kong and Thomson (2006), HC is the main determining factor in the success or failure of all participants in social service NPOs. Previous studies have demonstrated a significant link between HC and OP in the non-profit sector (Adnan *et al.*, 2013; Mohd Noor *et al.*, 2015; Bontis *et al.*, 2018; Baig and Ndiweni, 2021). These studies suggest that HC is an essential factor that develops employee skills to

Figure 1.  
Conceptual  
framework



Source: Adapted from Khaliq *et al.* (2013)

improve an NPO's performance and sustain a long-lasting competitive advantage. Understanding the role of HC in waqf institutions can enrich the knowledge in this context. As a result, the following hypothesis was proposed:

*H1.* HC has a positive and significant relationship with the OP of Algerian *waqf* institutions.

The RC of an organisation is related to the flow of knowledge to, and from, the external environment. This includes the reputation of the organisation in the external environment, its influence on the distribution channel and its relationship with customers, suppliers, as well as the governments and associations that operate in the vicinity of the organisation (Kong and Prior, 2008). NPO effectiveness and OP rely heavily on RC. Studies have shown that multilateral relations, sharing resources and mutual learning between organisations operating in the same sector can result in improved performance of NPOs and achievement of their mission (Kong, 2010a; Bloice and Burnett, 2016; Laallam *et al.*, 2020b). Many empirical studies have demonstrated a positive and significant relationship between RC and OP in the context of NPOs (Adnan *et al.*, 2013; Mohd Noor *et al.*, 2015; Bontis *et al.*, 2018). Accordingly, the following hypothesis was proposed:

*H2.* RC has a positive and significant relationship with the OP of Algerian *waqf* institutions.

STC is an integral part of IC, which represents all forms of non-human knowledge embedded within an organisation (Cuganesan, 2005). It could be in the form of databases, procedures, policies and rules developed by organisations to support and facilitate an organisation's operations, thus contributing to its performance (Bontis *et al.*, 2000). Despite its importance, some researchers found that NPO managers consider HC the most important dimension while underestimating STC (Kong, 2008). This may threaten an organisation's whole knowledge management system (Benevene *et al.*, 2017). Previous studies on NPOs revealed mixed results with regard to the influence of STC on OP; some studies that followed a qualitative approach argued for its importance to NPO performance (Kong and Prior, 2008; Benevene *et al.*, 2019). Other researchers who followed a quantitative approach found that STC had no significant impact on the performance of NPOs being studied (Mohd Noor *et al.*, 2015; Bontis *et al.*, 2018). In light of these differences, it is worth investigating the influence

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of STC on the OP of waqf institutions in Algeria. Thus, the following hypothesis was formulated:

*H3.* STC has a positive and significant relationship with the OP of Algerian *waqf* institutions.

Most NPOs, including waqf institutions, are diverse in nature and are socioeconomic-driven organisations. SC is essential to the success of non-profits' operations and their internal and external image with stakeholders (Rho *et al.*, 2015). In the NPO context, stakeholder relationships are important. Maintaining and improving those relationships generates SC (King, 2004). SC is based on an organisation's transparency, communication, honesty, social interactions, trust, corporate social responsibility, fairness ethics and the well-being of workers (Adler, 2001; Benevene *et al.*, 2019; Kaltenbrunner and Renzl, 2019; Khaliq *et al.*, 2020). A non-profit board of directors or management with experience and social skills, according to Jaskyte (2012a), are able to create an environment that encourages creativity and the sharing of new ideas in NPO initiatives such as fundraising and member representation within society. Previous empirical studies have shown that SC has a significant role leading to innovation and organisational success of NPOs (Kaltenbrunner and Renzl, 2019; Rey-Garcia and Mato-Santiso, 2020; Weerakoon *et al.*, 2020). To investigate the role of SC in waqf institutions in Algeria, the following hypothesis was proposed:

*H4.* SC has a positive and significant relationship with the OP of Algerian *waqf* institutions.

TC refers to an NPO's degree of technology adoption to develop and innovate new products and services that meet the community's expectations and needs. It is mainly based on information technology innovativeness, data skills and R&D activities (Jaskyte, 2012b; Khaliq *et al.*, 2020). In the era of the knowledge-based economy, the innovative use of information technology is imperative for the success of NPOs' mission (Bloice and Burnett, 2016; Vakharia *et al.*, 2018). Jaskyte (2012b) listed a range of benefits related to the innovative use of information technology by NPOs. These benefits include, but are not limited to, providing efficient and low-cost services; meeting the reporting requirements of funders, clients and regulators; expanding the reach of existing services; attracting new donors; and managing resources and capabilities in more efficient and effective ways to enhance services and internal operations. Many researchers have noted that TC is a major source of knowledge transfer and development for NPOs, which effectively contributes to achieving sustainability and competitive advantage (Zorn *et al.*, 2011; Rathi *et al.*, 2014; Zapata Cantu and Mondragon, 2016; Hou and Wang, 2017). Accordingly, the following hypothesis was presented to explore the role of TC in Algerian waqf institutions:

*H5.* TC has a positive and significant relationship with the OP of Algerian *waqf* institutions.

Previous literature has shown SPC to be one of the most important factors affecting the commitment and performance of individuals as well as OP in both the for-profit and non-profit sectors (Tseng and Fan, 2011; Hashim *et al.*, 2015; Neubert *et al.*, 2017; Khaliq *et al.*, 2020; Rahman *et al.*, 2021). SPC is a set of intangible and metaphysical resources derived from a person's spiritual, religious, ethical values and experiences, which can be applied to economic activities (Stokes *et al.*, 2016). As this study deals with waqf institutions, which are non-profit and religious in nature, SPC is believed to be an effective predictor of OP. In addition, this study focuses on the context of Algeria, which is a Muslim-dominated and

developing country, and thus, the religion of Islam is believed to shape HC and SC in the country (Neubert *et al.*, 2017). It is evident that there is a lack of research on SPC in the context of NPOs (Blankenburg, 2018). Therefore, the following hypothesis was introduced to contribute to filling this gap, as well as investigating the role of SPC in the OP of Algerian waqf institutions:

- H6. SPC has a positive and significant relationship with the OP of Algerian *waqf* institutions.

### 3. Research methodology

#### 3.1 Data collection and sampling procedures

In this study, survey questionnaires were distributed to full-time waqf employees working at different waqf institutions located in 24 provinces (*willaya*) in the northern, southern, central, eastern and western parts of Algeria. Respondents for this study were selected through a cluster sampling technique from all provinces in Algeria. A total of 485 survey questionnaires were distributed to the targeted respondents through a manual distribution technique. Out of the 485 questionnaires distributed, only 193 were considered for this research with a response rate of 40%. The remaining 292 questionnaires were excluded due to incomplete answers, failure to retrieve some questionnaires and detection of potential outliers which can affect and distort the accuracy of the analysis (Tabachnick *et al.*, 2007; Hair *et al.*, 2010). The questionnaire for this study was divided into three sections (A–C). Section A contains respondents' demographic data, including gender, age, level of education, job position, working experience, number of employees and organisational age. Section B contains 89 items pertaining to the six components of IC. Lastly, 20 items were asked in Section C to elicit information regarding OP.

#### 3.2 Measurement of variables

In this study, the IC dimensions (HC, RC, STC, SC, TC and SPC) were tested as independent variables of OP. This study is quantitative in nature, based on cross-sectional research design, whereby the data for the whole study was collected at one point in time. The measurements used in this study were originally adapted from past literature (King, 2004; Ismail, 2005; Kong and Prior, 2008; Adnan *et al.*, 2013; Khalique *et al.*, 2015). Prior to data collection, the study's measurements were enhanced and screened by waqf practitioners and academicians to better fit with the characteristics of the waqf institutions in Algeria. The choice of answers was based on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

### 4. Results

The data in this study was analysed using the Statistical Package for Social Sciences (SPSS) version 20 and partial least squares (PLS) version 3.2.7. PLS was favoured in this study because of its superiority in simultaneously estimating the relationship between constructs (structural model) and relationships between indicators and their corresponding latent constructs (the measurement model) (Chin *et al.*, 2003; Duarte and Raposo, 2010). In addition, PLS is a technique that is designed to deal with predictive causal analysis in highly complex situations, with theoretical knowledge about undeveloped relationships (Hair *et al.*, 2019). As this study is explanatory in nature, PLS was found to fit its objective perfectly. Smart PLS is software based on structural equation modelling (SEM). PLS-SEM is a better alternative than covariance-based structural equation modelling (CB-SEM) when the following criteria

are encountered: small sample size, low availability of theory applications, the theoretical model is new or not well-formed, the model is complex, with latent constructs and structural paths, the paramount importance of predictive accuracy (predict relationships) and the model correct specification cannot be guaranteed (Chin *et al.*, 2003; Wong, 2010; Ramayah *et al.*, 2018; Hair *et al.*, 2019).

Although PLS is a soft modelling approach to SEM without data distribution assumptions (Vinzi *et al.*, 2010), the collected data was screened using SPSS software to ensure suitability for further analysis (Hair *et al.*, 2019). In the first stage, the data was subjected to several tests, such as a normality test, multicollinearity, missing values and outliers' assessment (Tabachnick *et al.*, 2007; Ringle *et al.*, 2012). This study used a two-step approach, as suggested by Henseler *et al.* (2009), in evaluating and reporting the PLS-SEM model's output. This approach consists of the measurement model assessment and the structural model assessment (Henseler *et al.*, 2009; Hair *et al.*, 2017).

#### 4.1 Demographic profiles

The demographic characteristics included in this study are province, gender, age, level of education, number of employees, organisational age, job position and experience. As presented in Table 1, 39.4% of the sample respondents were from the northern part of Algeria, 20.7% from the eastern part, 16.3% from the provinces located in central Algeria, 14.5% were from the western part and 9.3% were from the southern part. Most respondents of the study sample (66.8%) were male, while 33.2% were female. In terms of age distribution, the largest group of participants was between 40 and 50 years old, whereas the second smallest group of participants was between 20 and 30 years old. In terms of education level, the majority of the respondents held a bachelor's degree (50.8%) and diploma (23.3%). With regard to the number of employees and organisational age, most waqf institutions located in every one of the 48 provinces of the country, have been in operation for more than 20 years and have around 50 to 100 employees.

As for job position, three types of managerial bodies participated in the study, out of which only one participant was regarded as a regional director of religious affairs and *awqaf* (0.5%). Accordingly, 50 head of waqf departments participated in the study, which accounted for 25.9%. In addition, 23 waqf agents (11.9%), whose responsibilities were overseeing all matters related to *awqaf*, such as the day-to-day operations and administrative matters, and seven waqf inspectors also participated in the study (3.7%). Other participants (58.1%) were administrative assistants, whose responsibilities related directly or indirectly to the management of *awqaf*. In terms of experience, the largest category of respondents (41.5%) had served between five and ten years in waqf departments.

#### 4.2 Assessment of measurement model

According to Henseler *et al.* (2009) and Hair *et al.* (2019), a convergent validity test should be conducted to assess the model measurement. In this initial stage of the investigation, individual item loadings, average variance extracted (AVE) and composite reliability (CR) were ascertained. Table 2 provides details of the convergent validity test. As shown in Table 2, individual item loadings were more than 0.708, which is in accordance with Hair *et al.*'s (2019) recommendation. This indicates that the construct explains more than 50% of the indicator's variance, thus providing acceptable item reliability. Items with less than 0.5 factor loadings were dropped from the constructs (Chin, 1998).

As for the AVE threshold, the value should exceed 0.5, according to the recommendation of Chin (1998). In this study, the AVE values ranged from 0.571 to 0.926, which were

Variables	N	(%)
<i>Province</i>	76	39.38
North of Algeria	40	20.72
East of Algeria	31	16.06
Middle of Algeria	28	14.50
West of Algeria	18	9.32
South of Algeria		
<i>Gender</i>	129	66.8
Male	64	33.2
Female		
<i>Age</i>	19	9.8
20–30 years	100	51.8
31–40 years	62	32.1
41–50 years	12	6.2
> 51 years		
<i>Education</i>	45	23.3
Diploma (vocational training certificate)	98	50.8
Bachelor	43	22.3
Master	7	3.6
PhD		
<i>Number of employees</i>	193	100
< 50 employees		
50–100 employees		
> 101 employees		
<i>Organisational age</i>	193	100
< 20 years		
> 20 years		
<i>Job position</i>	1	0.5
Regional director of religious affairs and <i>awqaf</i>	50	25.9
Head of waqf department	23	11.9
<i>Waqf</i> agent	7	3.6
Inspector	112	58.1
Administrative assistants		
<i>Experience</i>	45	23.3
< 5 years	80	41.5
5–10 years	17	8.8
11–15 years	25	13
16–20 years	26	13.5
> 21 years		

**Notes:** This table shows demographic characteristics included in this study, six of which are related to the respondents' profiles, i.e. gender, age, education, job position and experience, whereas three are related to the organisational characteristics, i.e. province, number of employees and organisational age. The number of respondents is  $n = 193$

**Table 1.**  
Demographic profiles

satisfactory. Moreover, the values of CR were in the range from 0.915 to 0.961, and this is in line with the requirement of the internal consistency reliability of the constructs (Hair *et al.*, 2011). Cronbach's  $\alpha$ , on the other hand, may underestimate or overestimate the reliability scale. The values of Cronbach's  $\alpha$  were calculated for further reference. The internal consistency reliability value of 0.70 is regarded as satisfactory for a model when considering Cronbach's  $\alpha$ .

Construct	Items	Loadings	VIF	Cronbach's $\alpha$	CR	AVE	Components of intellectual capital
HC	HC17	0.963	3.630	0.920	0.961	0.926	
	HC18	0.961	3.630				
RC	RC3	0.936	2.514	0.874	0.941	0.888	
	RC4	0.949	2.514				
STC	STC2	0.919	1.899	0.815	0.915	0.844	
	STC3	0.919	1.899				
SC	SC1	0.870	2.573	0.877	0.915	0.729	
	SC2	0.860	2.620				
	SC3	0.850	2.455				
	SC7	0.835	2.112				
TC	TC6	0.942	2.704	0.885	0.946	0.897	
	TC7	0.952	2.704				
SPC	SPC8	0.931	3.300	0.908	0.942	0.844	
	SPC9	0.920	3.221				
	SPC10	0.906	2.645				
OP	OP1	0.717	2.044	0.937	0.945	0.571	
	OP2	0.717	2.176				
	OP5	0.721	3.189				
	OP6	0.754	2.942				
	OP7	0.752	2.420				
	OP9	0.758	2.264				
	OP12	0.759	3.101				
	OP13	0.751	3.547				
	OP14	0.754	2.596				
	OP15	0.727	2.642				
	OP18	0.801	2.999				
	OP19	0.784	3.524				
	OP20	0.819	3.491				

**Notes:** This table details the output of measurement model tests that were conducted in the initial stage of investigation. These tests are items' loadings, AVE and CR. All values are consistent with the rule of thumb as recommended by [Hair et al. \(2011\)](#)

**Table 2.**  
Results of measurement model

After the convergent validity test, the next step entailed assessing the discriminant validity. As apparent in the literature, this test has been widely used and recommended by [Fornell and Larcker \(1981\)](#), but it has been criticised for not detecting the lack of discriminant validity in research ([Henseler et al., 2015](#)). This study provides the Fornell and Larcker analysis with regard to discriminant validity for further reference only. [Table 3](#) indicates

	HC	OP	RC	SC	SPC	STC	TC
HC	0.962						
OP	0.672	0.755					
RC	0.385	0.493	0.942				
SC	0.576	0.624	0.455	0.854			
SPC	0.554	0.656	0.426	0.684	0.919		
STC	0.527	0.580	0.338	0.585	0.438	0.919	
TC	0.461	0.621	0.498	0.494	0.456	0.486	0.947

**Notes:** This table outlines the output of the discriminant validity using the Fornell and Larcker criterion. Diagonals represent the square root of the AVE while the off diagonals represent the correlations

**Table 3.**  
Discriminant validity using Fornell and Larcker criterion

that all constructs show satisfactory discriminant validity based on the [Fornell and Larcker \(1981\)](#) criterion, in which the square roots of the AVEs are higher than the correlations among the latent constructs.

Alternatively, [Henseler et al. \(2015\)](#) recommended using the heterotrait-monotrait (HTMT) ratio of correlation as a replacement for checking discriminant validity. According to [Kline \(2015\)](#), a HTMT value greater than 0.85 indicates the existence of a discriminant validity issue. [Table 4](#) indicates that all HTMT values passed the requirement, indicating that the model possesses acceptable discriminant validity.

#### 4.3 Assessment of structural model

As suggested by [Hair et al. \(2019\)](#), after assessing the measurement model requirement, the next step in evaluating the output of PLS-SEM is assessing the structural model. This could be done through the standard assessment criteria of the significance level of the path coefficients, measured by the determination of  $R^2$ . In this study, the generated  $R^2$  was 0.651, suggesting that 65% of the variance of OP could be explained by HC, RC, STC, SC, TC and SPC. Prior to the assessment of the structural relationships, collinearity should be examined to ensure that the regression results are not distorted ([Hair et al., 2019](#)). This could be done through the determination of variance inflation factor (VIF) values. The rule of thumb of the VIF test is that, if the VIF value is above the value of 5, there might be an indication of probable collinearity issues among the predictor constructs ([Becker et al., 2015](#)).

As depicted in [Table 2](#), the VIF values of the study's items ranged between 1.899 and 3.630, indicating that all items of this study possess acceptable values with regard to collinearity. Furthermore, [Hair et al. \(2019\)](#) proposed determining  $f^2$  by examining the change in the  $R^2$  value. To compute the  $R^2$  change, the method excludes a specific exogenous construct from the model. It can be used to determine whether the omitted construct has any effect on endogenous constructs. [Cohen \(1988\)](#) defined effect sizes of 0.02, 0.15 and 0.35 as small, medium and large, respectively.

In addition, the statistical significance and relevance of the path coefficients should be performed through the bootstrap analysis with 5,000 cases, as suggested by [Hair et al. \(2011\)](#). According to the output shown in [Table 5](#), HC ( $HC \rightarrow OP, \beta = 0.283, t = 5.017, p < 0.01$ ), STC ( $STC \rightarrow OP, \beta = 0.149, t = 2.530, p < 0.05$ ) and SPC ( $SPC \rightarrow OP, \beta = 0.262, t = 3.671, p < 0.01$ ) were found to have a positive and significant relationship with the OP of waqf institutions in Algeria. However, three variables were found to have an insignificant relationship with the OP, namely, RC ( $RC \rightarrow OP, \beta = 0.086, t = 1.319, p < 0.05$ ), SC ( $SC \rightarrow OP, \beta = 0.039, t = 0.506, p < 0.05$ ) and TC ( $TC \rightarrow OP, \beta = 0.071, t = 0.975, p < 0.05$ ).

	HC	OP	RC	SC	SPC	STC	TC
HC							
OP	0.713						
RC	0.429	0.535					
SC	0.637	0.664	0.520				
SPC	0.605	0.696	0.476	0.762			
STC	0.609	0.657	0.401	0.688	0.509		
TC	0.510	0.680	0.562	0.555	0.506	0.573	

**Table 4.**  
HTMT criterion

**Notes:** This table provides the result of the HTMT test, which is used for determining discriminant validity in the model. The rule of thumb for HTMT test is based on [Gold et al. \(2001\)](#)

Thus, *H1*, *H3* and *H6* are supported. The validated model components of IC and OP is shown in **Figure 2**.

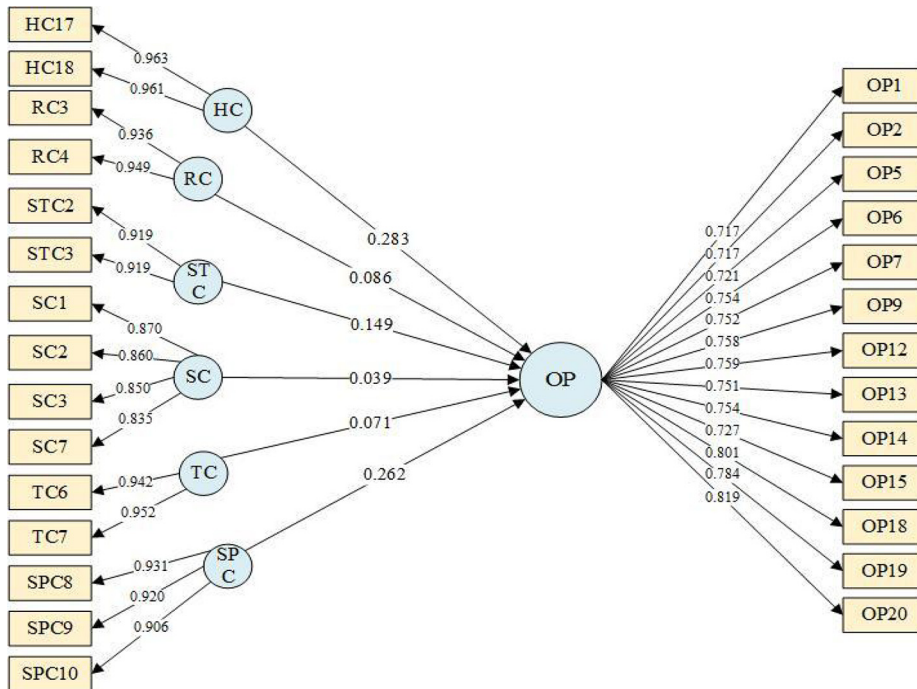
**5. Discussion**

The main objective of this study was to investigate the influence of the six components of IC on the OP of waqf institutions in Algeria. This study is based on the theoretical argument that IC is an effective strategic management tool of NPOs. Overall, the empirical results showed that some components of IC have been contributing positively towards the performance of waqf institutions in Algeria. However, considering the separate influence of IC dimensions on OP, the study has produced mixed results. The findings reveal that HC, STC and SPC have a significant and positive influence on OP, while RC, SC and TC were found to have no significant role.

Hypothesis	Relationship	Std. $\beta$	Std. error	<i>t</i> -value	$f^2$	Decision
<i>H1</i>	HC $\rightarrow$ OP	0.283	0.056	5.017***	0.133	Supported
<i>H2</i>	RC $\rightarrow$ OP	0.086	0.065	1.319	0.015	Not supported
<i>H3</i>	STC $\rightarrow$ OP	0.149	0.059	2.530*	0.038	Supported
<i>H4</i>	SC $\rightarrow$ OP	0.039	0.076	0.506	0.002	Not supported
<i>H5</i>	TC $\rightarrow$ OP	0.071	0.055	0.975	0.017	Not supported
<i>H6</i>	SPC $\rightarrow$ OP	0.262	0.071	3.671***	0.098	Supported

**Table 5.** Results of structural model

**Notes:** This table provides the output of the structural model using PLS. The value of  $R^2$  is 0.651, and the study's sample size is 193. The signs \*, \*\*, \*\*\* indicate significance at 10, 5 and 1%, respectively



**Figure 2.** Validated model of components of IC and OP

The results indicated a positive and significant effect of HC on OP. Past literature in the context of NPOs viewed HC as one of the most important IC components. It is regarded as a source of organisational innovation and strategic renewal, which contributes towards organisational survival and continuous growth (Kong and Prior, 2008; Bontis *et al.*, 2018; Benevene *et al.*, 2019; Laallam., 2020). In the context of waqf institutions in Algeria, HC represents mostly waqf agents and heads of departments who are directly linked to the management of *awqaf*. The results suggest that the employees of Algerian waqf institutions perceive HC as a crucial factor for enhancing OP, which is consistent with the study conducted by Adnan *et al.* (2013) in the context of zakat institutions in Malaysia. It indicates also that the stock of HC within the Algerian waqf sector is qualified enough to perform waqf operations and duties. In other words, the problems experienced by the waqf sector in Algeria are far too many to be caused by the inefficiency of the workers, or to be solved by them. Rather, it is the result of regulatory and legal obstacles that hinder the attainment of the overarching goal of this sensitive sector.

Moreover, STC was found to have a positive and significant relationship with the OP of waqf institutions in Algeria. This result is in line with Iqbal *et al.* (2019). It indicates that all forms of database and non-HC positively influence the OP of waqf institutions in Algeria. Likewise, SPC has also been found to have a positive and significant relationship with the OP of waqf institutions in Algeria. This result proves that religion and ethics play a vital role in the performance of organisations, which further supports the existing literature in this regard (Hashim *et al.*, 2015; Khalique *et al.*, 2015; Neubert *et al.*, 2017; Rahman *et al.*, 2021). It may also reflect the high spirit of religiosity in the Algerian waqf sector.

On the other hand, three important components of IC (RC, SC and TC) showed insignificant relationships with the OP of waqf institutions in Algeria. RC is an important factor that represents an organisation's relationships and network with the external environment (Marr and Roos, 2005). RC is vital for an organisation's growth and development, as it acts as a multiplying component that generates and creates value for organisations by linking all IC components with other external stakeholders (Ordóñez de Pablos, 2004). The empirical findings of this study shed light on an alarming situation that the respondents perceived RC unnecessary for their organisations. This indicates that waqf institutions in Algeria lack a relationship with other external parties, and this contradicts the foundations of the waqf system. This finding supports the view of Mansuri (2013) who claimed that waqf services in Algeria are no longer known to the public, except the work relating to the construction and maintenance of places of worship (mosques). It also indicates that waqf institutions in Algeria are static and not developing, which might bring into question the organisational culture of these institutions.

Moreover, the component of SC is also important in this context, as it mirrors an organisation's working environment and social interactions among workers and people, which contribute effectively to economic and social development (Grootaert and Van Bastelaer, 2001). The revealed insignificant relationship of SC with OP of waqf institutions in Algeria might reflect the well-being of employees, working conditions and environment that does not help exchanging ideas, nor support innovation. This is in line with the findings of Laallam *et al.* (2020b), who claimed that most waqf institutions linked to direct supervision of the government, are enriched with long experienced administrative staff linked to government or public jobs. This makes them perform their tasks routinely, which undermines creativity, the exchange of ideas and the pursuit of improvement. In other words, these administrative positions are not linked to incentives for achievements, which undermines the higher interests of the waqf.

In addition, this finding can be linked also to the insignificant relationship between RC and OP of waqf institutions in Algeria. It may be understood that an organisation operating within a strict governmental framework does not need to form multiple relationships with external parties and stakeholders. This also goes against the interests of the waqf sector. The last component of IC, which was found to be statistically insignificant with the OP of waqf institutions in Algeria, is TC. Past literature has stressed the significant role played by TC in stimulating OP, particularly in the knowledge-based economy (Ramezan, 2011; Khaliq *et al.*, 2020). The result of this study is consistent with the study of Rusydiana and Devi (2018), who found that most waqf institutions are still using manual methods in most of their programmes, which deal with a large number of documents relating to waqf deeds, assets and donors, and lack communications. It also reflects the heavy reliance of waqf institutions in Algeria on paperwork.

## 6. Implications

### 6.1 Theoretical implications

IC is an effective strategic tool for managing NPOs. The growing role of its dimensions and its close relationship with the success of and competitive edge of organisations made it a fertile field for research and contributions to the theoretical perspective. This study, on the other hand, indicates that IC is vital for the success of the OP and assessment of waqf institutions. This study has contributed to the field of research on IC from different aspects. Firstly, this study contributed knowledge to IC theory by validating the integrated IC model proposed by Khaliq *et al.* (2013) in the context of NPOs. Secondly, despite its significance, there is an obvious lack of IC research in non-profit religious organisations, particularly waqf institutions (Laallam *et al.*, 2020a, 2020b). This study has demonstrated empirically that IC dimensions are important drivers of OP and can be used effectively for strategic assessment of waqf institutions in Algeria. Thirdly, this study considered SPC as a dimension of IC which contributes towards OP of NPOs in a developing nation (Neubert *et al.*, 2017). This study supports this argument by highlighting the importance of SPC in the context of NPOs.

### 6.2 Managerial implications

As highlighted in Pedro *et al.* (2018), the third stage of IC literature focuses more on developing implications arising from the management of IC dimensions within different types of organisations. This study has succeeded in linking the challenges impeding the performance of waqf institutions in Algeria with the IC resources. This can help generate strategic solutions for the waqf sector in Algeria. The results of this study indicate that waqf managers in Algeria should consider investment in IC to efficiently capitalise on waqf resources for the betterment of society. *Waqf* managers should seek the best approach to improve IC readiness within waqf institutions. This can be made through supporting IC awareness, measurement, management, disclosure and reporting (Veltri *et al.*, 2017; Abd Jalil *et al.*, 2019). This might help in reviving the waqf institution in Algerian society to achieve its socioeconomic objectives. In addition, this study revealed a significant and positive relationship between STC and OP. This result indicates that waqf managers can invest more in STC and process to recognise possible opportunities in the Algerian market. This should be done in tandem with the development of technological infrastructure to expedite the process of identifying potential opportunities. Developing TC would help in enhancing transparency and traceability in the waqf industry. *Waqf* managers should work at creating a working environment that strengthens social network among employees and supports sharing ideas and thoughts. This would accelerate the process of innovation,

solving problems and improve the institution's image among the public. Most importantly, waqf managers should consider building long-term relationships with customers, donors, stakeholders, government agencies, large companies and other NPOs operating in the country. Such relationships would help waqf institutions to develop rapidly at the organisational level. This would also help waqf managers restore public trust as well as recognise market opportunities to better maximise societal benefits.

### *6.3 Policy implications*

This study is believed to be of great importance to policymakers in Algeria. Recently, the government has taken the initiative to shift towards a knowledge economy, where preference is given to knowledge and intellectual resources. As the largest country in Africa with a high density of youth, policymakers in Algeria should consider the waqf sector as a potential solution to socioeconomic issues in the country. *Waqf*, as a dynamic system, can be integrated with all institutions across sectors (such as the economy, finance, social, health and religion). Policymakers in Algeria should consider expert recommendations with regard to granting *awqaf* institutional independence to improve performance while maximising societal benefits (Masdur and Mansuri, 2008; Al-Snousi, 2019; Laallam *et al.*, 2020). The Ministry of Religious Affairs can still supervise waqf institutions indirectly. The results of this study provide empirical evidence of the reality of this sector in Algeria. *Waqf* institutions would act professionally and efficiently as an independent entity, capitalising on intellectual resources.

## **7. Conclusion**

In today's competitive world, intangible resources have become the most important and valuable capital for any form of organisation. NPOs, with their increasing role in societies, have begun to focus on the role of intangible resources such as IC. The concept of IC in waqf institutions is still in its infancy. This study found that IC is a significant factor in the OP of waqf institutions in Algeria. Past studies in the context of *awqaf* in Algeria have highlighted several issues impeding the development of this sensitive sector. However, this study embarked on a novel attempt in terms of tackling waqf issues from the perspective of intangible resources and strategic management. To the best of the author's knowledge, this study is the first to empirically investigate the influence of IC components on the OP of waqf institutions. In addition, this is the first to explore the influence of other IC dimensions such as SC, TC and SPC in the context of waqf institutions in Algeria. From this vantage point, it is reasonable to conclude that the role of HC, STC and SPC have all been instrumental in the OP of Algerian waqf institutions. However, RC, SC and TC did not demonstrate any kind of role in the context of waqf institutions in Algeria.

## **8. Limitations and future research**

Despite its important contribution to the literature and industry, this study has some limitations, including a limited sample size and the use of only a quantitative approach. This research represents a case study limited to waqf institutions in Algeria. This research is cross-sectional in nature, and the data was collected through questionnaires based on subjective measures. As a result, the findings could not be applied to other sectors. However, in terms of theoretical and research methodology, the findings of this study are still valid and reliable. This study has profound implications for managerial and policies perspectives. However, future studies should use a method approach and explore the organisational culture of waqf institutions. In addition, future studies should investigate knowledge

management practices along with IC components within waqf institutions to provide a broader picture of these institutions' OP. Moreover, this research encourages extending research to all important sectors in Algeria.

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