AL-MAQĀṢID
INTERNATIONAL JOURNAL OF MAQĀṢID STUDIES & ADVANCED ISLAMIC RESEARCH
E-ISSN: 2735-1149, Vol. 5, No. 1, 2024, pp. 1-16

The Integration of Five Main Goals of Shariah in The Production of Science and Technology for Human Well-Being

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Article history:
Submission date: 10 July 2024
Received in revised form: 10 August 2024
Acceptance date: 12 August 2024
Available online: 30 August 2024

Keywords:
Maqāṣid Al-Sharīʿa, Shariah principles, modern technology, application, human well-being

Funding:
These authors have no support or funding to report.

Competing interest:
The author(s) have declared that no competing interests exist.

Cite as:
Alias, M. A. A., Mohd Jailani, M. R., Wan Ismail, W. A. F., & Baharuddin, A. S. (2024). The integration of five main goals of Shariah in the production of science and technology for human well-being. *AL-MAQASID The International Journal of Maqāṣid Studies and Advanced Islamic Research*, *5*(1), 1-16.
https://almaqasid.my/index.php/ojs/article/view/79

SDG Elements:
Quality education

ABSTRACT

The development of science and technology has significantly impacted people's daily lives. Humans depend on convenience and innovation, such as online transactions, presenting electronic documents as evidence in court, online education applications, and others. In Shariah principles, *Maqāṣid Al-Sharīʿa* plays an important role in taking care of the five main elements: the preservation of faith or religion (*Hifz al-Din*), the preservation of life (*Hifz al-Nafs*), the preservation of intellect (*Hifz al-ʻAql*), the preservation of lineage (*Hifz al-Nasl*), and the preservation of property (*Hifz al-Mal*). According to the religious perspective, any modern technology or innovation contradicting the five main principles is not permissible. However, to what extent are the five main principles applied to producing this development? This article explores the requirements for adopting science and technology to enhance human well-being, examines how Shariah's five main objectives can be integrated into the production of science and technology, and analyses the challenges in applying these objectives within this context. This article uses a qualitative approach via document analysis, utilising several sources such as classical Islamic and contemporary books, theses, journal articles, proceedings, websites, and working papers. The collected data is presented in the form of subthemes. The findings show that applying the five Shariah principles is crucial in producing innovation and modern technology for human well-being. This is because an innovation that violates the principle of *Maqāṣid Al-Sharīʿa* is automatically not accepted by Shariah, such as gender reassignment, semen banks, *etc*. This study summarises that the emerging manufacturing of technologies and innovations must align with the five principles of Shariah. The main objective is to produce good (*jalbu al-maslahah*) and reject all evil (*dar'u al-mafsadah*).

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Introduction

In this modern era, the development of science and technology has created various advances that significantly impact human life (Simplilearn, 2024). For instance, advances in legislation, medicine, information technology, and biotechnology have brought many invaluable benefits. However, with the speed of this development, the question then arises of how ethical and moral values can be preserved in this current of progress.

In the context of Islamic society, the principles of Shariah play a significant role in ensuring that every aspect of life, including science and technology, runs under Islamic values. As a fundamental aspect of Muslim life, Shariah encompasses five primary objectives known as *Maqāṣid Al-Sharīʿa* (Afridi, 2016). These five purposes are the preservation of faith or religion *(Hifz al-Din)*, the preservation of life *(Hifz al-Nafs)*, the preservation of intellect *(Hifz al-ʻAql)*, the preservation of lineage *(Hifz al-Nasl)*, and the preservation of property *(Hifz al-Mal)* (Mohd Subri & Ab Rahman, 2017). Each of these principles is important in shaping the ethical framework that governs the development and use of science and technology.

By taking into account the *Maqāṣid Al-Sharīʿa*, we can ensure that science and technology are developed in a way that benefits and does not cause harm to humans and the environment. This study is significant as it not only addresses the ethical and moral implications of technological advancements but also contributes to the achievement of SDG objective 4, which promotes inclusive and equitable quality education and lifelong learning opportunities for all, by ensuring that science and technology are developed and applied in a way that respects and preserves fundamental human values (United Nations, n.d.).

This article, therefore, discusses how the five primary objectives of Shariah can be applied to the production of science and technology for human well-being. The authors begin by addressing the requirements for adopting science and technology to enhance human well-being. The following section explores the integration of Shariah's five main objectives in the production process. Finally, the article highlights the challenges of applying these Shariah objectives to developing science and technology.

Methodology

The methodology plays a crucial role in achieving the objectives of a study. For this study, the researchers used a qualitative approach through document analysis. Document analysis is a systematic technique that carefully examines and interprets texts, including words, meanings, images, symbols, ideas, themes, or communicated messages (Babbie, 2010; Merican, 2009). The analysis may include physical and electronic documents (Bowen, 2009). For this study, the researchers utilised sources such as classical Islamic and contemporary books, theses, journal articles, proceedings, websites, and working papers. The collected data were then analysed using the document analysis method and presented as subthemes.

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Maqāṣid Al-Sharīʿa Definition

Generally, *Maqāṣid Al-Sharīʿa* consists of two words: "*maqasid*" and "*shariah*". *Maqasid* is a plural word for *maqsad* that comes from the phrase *qasada*, which means intention or demand (Ibn Manzur. n.d.). In terms of terminology, *maqasid* means the understandings and pearls of wisdom that are realised by *al-syari'* (Allah SWT) in all *tasyri'* situations or most of them where it is not only found in certain parts of Shariah laws only (Ibn 'Assyur, 1999). Meanwhile, 'Alal al-Fasi (1963) defines it as the goals, purposes, and secrets determined by Shariah in each of its rules. Based on the two definitions provided above, *maqasid* means that Allah SWT sent down His Shariah with the mission and vision of protecting and ensuring the welfare of humans in this world and the next. Shariah law principles set comprehensive and pure goals and objectives in all aspects of life (Azhar et al., 2017).

On the other hand, the word Shariah comes from the word *syara'a*, which refers to several different words that bring the same meaning, such as *al-tariq al-mustaqim*, *al-sunnah, al-manhaj, al-'adah, al-din, al-millah* and *al-ma'* (Badran, n.d.). Some scholars also interpret it as a religious teaching or *manhaj* (Ibnu Manzur. n.d.). In terms of terminology, Shariah can be defined as any rules or regulations that were revealed to the Prophet SAW consisting of laws in the holy Quran and the Sunnah, which are related to the field of *aqeedah* and the actions of *mukallaf*, whether law regarding - *qath'ie* or *zhanni* judges (Al-Mausu'ah al-Fiqhiyyah, 1998).

From those two words, the concept of *"Maqāṣid Al-Sharīʿa"* was created, which is widely discussed and applied, including in debates on knowledge and laws. Scholars have put various definitions forward to explain this concept. Among them, Al-Qaradawi (2007) defines *"Maqāṣid Al-Sharīʿa"* as the wisdom that is the purpose of establishing the law that God has decreed to be realised in human relationships in the form of commands, prohibitions, or must either for individuals, families, nations, and people. These meanings can also be interpreted as wisdom, the purpose of establishing the law prescribed by God for His servants. Meanwhile, Ibn ʿĀshūr (2001) defines *Maqāṣid Al-Sharīʿa* as the meanings and pearls of wisdom that Allah SWT considers in all or most of Shariah law, where the consideration is not limited to certain circumstances of Shariah law. Next, this concept also means the purpose of the legislation and the secrets set by Allah SWT the All-Wise in each of his laws (Al-Fasi, 2007). According to al-Qaradawiy (2012) and al-Ghazali (1996), *Maqāṣid Al-Sharīʿa* is the purpose of legal Shariah to enable people to enjoy goodness and reject evil.

Based on the above definitions, it can be concluded that *"Maqāṣid Al-Sharīʿa"* is the objective or purpose Allah SWT desires in every law that has been legislated. The essence of the legislation is to realise benefits and eliminate harm to humans. The stated purpose is to solve the problems that occur in human life. According to al-Raysuniy (1995), the meaning of *Maqāṣid Al-Sharīʿa* itself is to produce good *(jalbu al-maslahah)* and reject all bad things *(dar'u al-mafsadah)*. In the next section, the authors will discuss the categories of *Maqāṣid Al-Sharīʿa* specifically.

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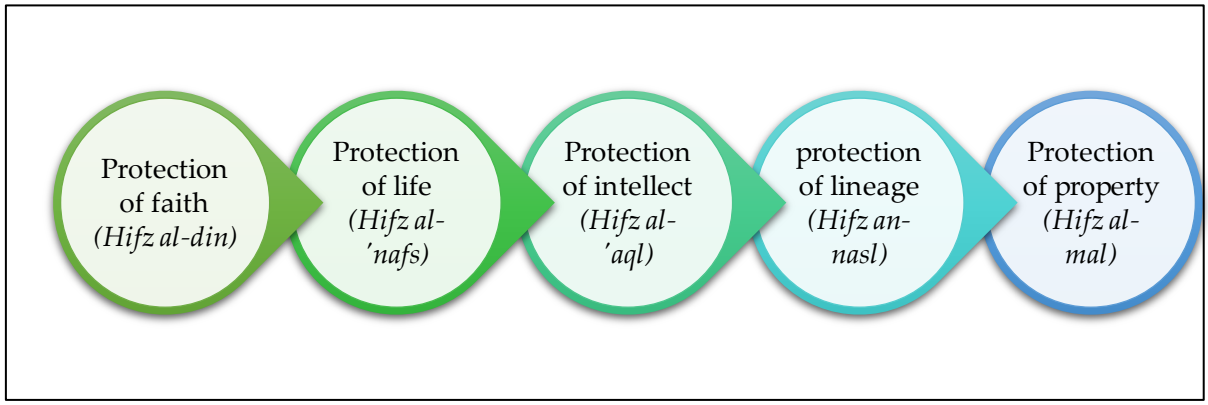
The Categories of Maqāṣid Al-Sharīʿa

Maqāṣid Al-Sharīʿa is generally divided into three main categories: *Daruriyyat* (basic requirements), *Hajiyyat* (additional requirements), and *Tahsiniyyat* (complementary requirements) (Talib, 2010). This article will focus on the category of *daruriyyat* (necessities that cover five preservation elements) for humans, which involves five main principles that must be preserved: faith, life, intellect, lineage, and property (Refer to Figure 1).

Figure 1. Five Principles of *Maqāṣid Al-Sharīʿa*



Protection of Faith or Religion (Hifz al-din)

One of the five main objectives of *Maqāṣid Al-Sharīʿa* is *Hifz al-Din*, or the protection of religion. This objective or principle emphasises the importance of maintaining religion in the life of a Muslim through the implementation of religious obligations, as well as ensuring that it is implemented in a way that does not cause difficulties for individuals (Tarmizi, 2018). Maintaining religion can be seen from three levels: *dharuriyyat* (basic needs), *hajiyyat* (additional needs), and *tahsiniyyat* (completing needs) (Refer to Table 1).

Table 1. The protection of faith based on the level of necessities

Level	Definition	Example	Consequences of Non-Implementation
Dharuriyyat	Maintain and implement basic and critical religious obligations to ensure the existence of religion	Pray five times a day	The existence of religion will be threatened
Hajiyyat	Facilitating or alleviating difficulties in performing acts of worship	Concessions (*rukhsah*) in prayer for the sick or travelers, allowing them to perform prayers more efficiently without neglecting religious obligations	It does not threaten the existence of the religion but will trouble the individuals involved

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Tahsiniyyat	Following religious guidance to uphold human dignity and fulfill one's duty to God	Wearing neat and clean clothing during prayer	It is important for welfare and commendable morals; however, its absence does not threaten the existence of religion

Based on Table 1 above, each level is essential in ensuring that religion is well preserved and can be practised daily without affecting individual well-being. Keeping the religion in the position of *dharuriyyat* involves the implementation of basic obligations, such as the five daily prayers, which are critical to ensure the existence of the religion. At the level of *hajiyyat*, concessions (*rukhsah*) in prayer for the sick or travelers allow them to perform prayers more easily without neglecting religious obligations. The level of *tahsiniyyat* emphasises aspects such as wearing neat and clean clothing during prayer, which is important for welfare and commendable morals. However, it does not threaten the existence of religion if it is not implemented.

Protection of Life (Hifz al-nafs)

Preserving life *(Hifzu al-Nafs)* in *Maqāṣid Al-Sharīʿa* refers to efforts to care for and protect human life (Harun & Mohamad Ali, 2021). It involves ensuring basic needs are met, avoiding difficulties in life, and maintaining decency and ethics in daily life (Roslan & Zainuri, 2023). Caring for the soul can be seen in three levels: *dharuriyyat* (basic needs), *hajiyyat* (additional needs), and *tahsiniyyat* (completing needs).

Table 2: The protection of life based on the level of necessities

Level	Definition	Example	Consequences of Non-Implementation
Dharuriyyat	Fulfills basic needs critical to sustaining human life	Meet basic food needs	Will result in a threat to the existence of the human soul
Hajiyyat	Provide additional needs to avoid difficulties in life	Hunting animals to obtain halal and quality meat, such as chicken or deer, helps meet the need for quality and healthy food	It does not threaten human existence but will make life difficult
Tahsiniyyat	Practicing decency and ethics that completes life	Modesty and ethics in eating and drinking	Not life-threatening or life-threatening, but important for decency

Based on Table 2 above, each level is important in ensuring that human life is maintained well and of decent quality. Maintaining the soul in the position of *dharuriyyat* involves fulfilling basic needs such as food, which are critical for sustaining human life. At the *hajiyyat* level, hunting animals to obtain halal and quality meat, such as chicken or deer, helps meet the needs for quality

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and healthy food. In contrast, the *tahsiniyyat* level emphasises modesty and ethics in eating and drinking, which are important for the perfection of life.

Protection of Intellect (Hifz al-'Aql)

The concept of protection of intellect (*Hifzu al-'Aql*) in *Maqāṣid Al-Sharīʿa* is important to ensure human mental and intellectual well-being. This involves protection from things that can damage the mind, providing the need for knowledge development, and maintaining ethics and manners in using the mind (Mat Saad & Rajamanickam, 2021). Preserving the mind can be seen in three levels: *dharuriyyat* (basic needs), *hajiyyat* (additional needs), and *tahsiniyyat* (completing needs).

Table 3: The protection of intellect based on the level of necessities

Level	Definition	Example	Consequences of Non-Implementation
Dharuriyyat	Ensure basic protection to maintain common sense	Seeking fundamental knowledge of *fardhu ain*	May affect adherence to Islamic teachings and the performance of religious practices
Hajiyyat	Provide additional needs to avoid difficulties in intellectual development	Seek various knowledge	It does not damage the mind but complicates the development of science
Tahsiniyyat	Maintain ethics and manners that perfect the use of reason	Studying scientific knowledge and skills	Not threatening the existence of common sense, but important for ethics and manners

Each stage is vital in ensuring the human mind is preserved and developed well. Preserving the intellect in the position of *dharuriyyat* is like seeking fundamental knowledge of *fardhu ain*. Neglecting this fundamental knowledge can lead to a lack of understanding of religious obligations, which may affect adherence to Islamic teachings and the performance of religious practices. Moreover, seeking various knowledge at the level of *hajiyyat* helps avoid difficulties in the development of science. At the level of *tahsiniyyat*, we also explore the scientific knowledge and skills to be applied in our daily lives.

Protection of Lineage (Hifz al-Nasl)

Keeping descendants (*Hifzu al-Nasl*) in *Maqāṣid Al-Sharīʿa* aims to ensure the continuity of offspring and protect family institutions. It involves rules that ensure offspring are well taken care of by implementing basic obligations, avoiding difficulties, and maintaining ethics and manners in marriage (Wan Ahmad et al., 2021). Preserving lineage can be seen in three levels: *dharuriyyat* (basic needs), *hajiyyat* (additional needs), and *tahsiniyyat* (completing needs).

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Table 4: The protection of lineage based on the level of necessities

Level	Definition	Example	Consequences of Non-Implementation
Dharuriyyat	Ensure basic protection to maintain the existence of descendants	Married and forbidden to commit adultery	The existence of offspring will be threatened
Hajiyyat	Provide additional requirements to avoid difficulties in caring for offspring	Determination of dowry and *talaq* rights	The husband has difficulty paying the metal dowry or difficulties in a disharmonious household
Tahsiniyyat	Maintain ethics and manners that perfect marriage	*Khitbah* or walimat in marriage	It does not threaten the existence of offspring but is important to perfect the marriage

Each of these stages plays an essential role in ensuring the survival and well-being of humanity. Preserving offspring in the position of *dharuriyyat* involves marriage and the prohibition of adultery to ensure the continuity of offspring, while at the level of *hajiyyat*, the determination of dowry and the right of talaq help to avoid difficulties in marriage. At the *tahsiniyyat* level, practices such as *khitbah* and *walimah* complete the marriage, although they do not threaten the existence of offspring if neglected.

Protection of Property (Hifz al-mal)

The concept of preserving wealth (*Hifzu al-Mal*) in *Maqāṣid Al-Sharīʿa* aims to protect and manage wealth to be used well for the well-being of individuals and society (Tarmizi, 2018). It involves regulations that ensure property is owned and used legally, avoid difficulties in transactions, and maintain ethics in *muʿamalah* (business) affairs. Preserving property can be seen in three levels: *dharuriyyat* (basic needs), *hajiyyat* (additional needs), and *tahsiniyyat* (completing needs).

Table 5: The protection of property based on the level of necessities

Level	Definition	Example	Consequences of Non-Implementation
Dharuriyyat	Ensure basic protection to maintain the existence of property	Sharia regarding the procedure of owning property and the prohibition of illegally taking other people's property	Resulting in threats to the existence of assets
Hajiyyat	Provide additional requirements to avoid difficulties in property matters	Sharia about buying and selling by greeting	It does not threaten the existence of assets but inconveniences people who need capital

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Tahsiniyyat	Maintain ethics and manners in matters of *mu'amalah*	Provisions to avoid fraud or misappropriation	Affecting the validity of buying and selling and *mu'amalah* ethics

Each stage is important to ensure the property is maintained and used well. Preserving property in the position of *dharuriyyat* involves owning property and prohibiting illegally taking property to ensure the existence of assets. At the same time, at the level of *hajiyyat*, the Shariah on buying and selling helps to avoid difficulties in transactions. At the *tahsiniyyat* level, avoiding fraud is important to maintain the ethics of *mu'amalah* and the legitimacy of buying and selling.

Discussions and Findings

The Requirements for Adopting Science and Technology Production for Human Well-being

In this highly sophisticated era of globalisation, science and technology have become increasingly important and serve as the foundation for advancing human civilisation. This rapid advancement is evident in various fields, including education, the judiciary, *mu'amalah*, and Islamic institution management. New technologies have emerged to simplify daily tasks while increasing effectiveness and efficiency. For example, in education, technologies such as e-learning and online platforms have increased access to knowledge, while in the judiciary, digital databases and forensic analysis have modernised legal procedures. Furthermore, technological advancements have led to innovations in Islamic institution management, such as mobile worship applications and digital zakat management. These developments demonstrate that adopting science and technology is required to ensure human well-being in the present and future.

Enhancing human life quality is one of the main motivations for implementing science and technology (Ariffin, 2022). Technology and science enable the development of goods and services that raise living standards. For example, in the healthcare industry, cutting-edge medical technology like telemedicine and magnetic resonance imaging (MRI) have transformed disease diagnosis and treatment, increasing the effectiveness and accessibility of healthcare. Moreover, comfort and safety have grown thanks to smart home technology like home automation and security systems. These developments show how science and technology may significantly improve day-to-day living.

Another crucial reason for adopting science and technology is to meet the growing social and economic demands (Abdul Halim & Othman, 2022). Technology makes resource and energy management easier in today's ever-more complex society. For instance, contemporary innovations like drones for crop monitoring and smart farming have increased agricultural production while decreasing resource abuse. Furthermore, technology is essential to the digital economy, as advancements like e-commerce and finance have increased access to international markets and created new economic opportunities. This promotes inclusive and sustainable economic growth, which enhances general human well-being.

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Finally, the quest for greater productivity and efficiency across various industries demonstrates the need for science and technology (Ahmad, 2018). Advanced technologies have sped up production processes and raised product quality in the industrial sector. Automation and robotics have enabled factories to produce goods more quickly and cheaply, and supply chain management technologies ensure that goods get to customers more effectively. Furthermore, technology has brought faster and more user-friendly systems, like online banking and e-hailing applications, to service sectors like banking and transportation. Better services are available to communities at lower costs thanks to this increased efficiency, improving people's quality of life.

In conclusion, science and technology play significant roles in improving human well-being. However, ensuring that technology advancements do not contradict Shariah guidelines is critical. Muslims will inevitably reject technology that violates Shariah norms. Despite the inevitability of scientific and technical progress, Muslims must guarantee that all innovations and advancements are consistent with the *Maqāṣid Al-Sharīʿa*, which emphasizes the preservation of religion, life, intellect, lineage, and property. In the next section, the researchers will focus on how to apply Shariah's Five Goals in producing science and technology for human well-being.

Application of Five Goals of Shariah into the Production of Science and Technology for Human Well-being

The production of science and technology plays a vital role in human development and well-being. However, in pursuing technological progress, ensuring this innovation aligns with moral and ethical principles and guaranteeing its benefits to society is crucial. *Maqāṣid Al-Sharīʿa* is the main objective of Islamic Shariah, and it has provided an appropriate framework to ensure that the development of science and technology not only provides material benefits but also preserves values that are important for human well-being. The five main objectives of *Maqāṣid Al-Sharīʿa* — protecting religion, soul, reason, lineage, and property—can guide the production and use of science and technology so that it is genuinely beneficial and not harmful. The five main objectives of *Maqāṣid Al-Sharīʿa* can preserve the benefits of science and technology for humankind through the following approach:

i- The Application of Protection of Faith (Hifz al-Din) into the Production of Science and Technology

The production of science and technology that follows religious principles will ensure that the innovation does not contradict the teachings of Islam. For example, technology that facilitates the implementation of worship, such as prayer guide applications or the digital Al-Quran, can help Muslims fulfil their religious obligations (Abdul Manaf et al., 2015). Add Abdul Manaf et al., (2015), in the 21st century, mobile technology is often used as a facilitator that is increasingly used holistically. Therefore, taking care of religion, science, and technology will be used to preserve and empower religious practices.

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These technologies make it easier for individuals to worship and enrich their spiritual experience. For example, a prayer guide application provides information about prayer times and shows the direction of the *Qibla*, daily prayers, and reminders for *dhikr*. The digital Al-Quran makes it easier for Muslims to access and read the Al-Quran anytime and anywhere, with additional features such as interpretation, translation, and audio reading that deepen understanding and appreciation of this holy book.

In addition, science and technology can also be used to develop knowledge in the religious field (Abdullah & Yasin, n.d.). For example, online learning platforms and digital information sources enable the spreading religious knowledge more widely and efficiently. Religious seminars and lectures can be accessed virtually, making religious knowledge more accessible to the public. This aligns with the principles of *Maqāṣid Al-Sharīʿa* in preserving religion, where religious knowledge needs to be disseminated and preserved for future generations. In addition, technology also helps facilitate the management of mosques and religious centres (Mat Jusoh et al., 2023). A technology-based mosque management system can increase efficiency in financial management, religious programs, and information delivery to the congregation. Technology such as mosque applications helps disseminate information about mosque activities and programs, manage donations, and provide facilities to register religious classes or other activities.

With the application of science and technology in line with Islamic teachings, innovation can greatly benefit Muslims in fulfilling their religious responsibilities. This simultaneously ensures that the development of science and technology provides material progress and empowers Muslims' spiritual and religious aspects.

ii- The Application of Protection of Life (Hifz al-Nafs) into the Production of Science and Technology

Science and technology are very important when applied to maintaining the safety and well-being of the human soul. These include medical technology that can save lives, safety systems that reduce the risk of accidents, and mental health programs that support psychological well-being (Awang, 2006). By caring for the soul, the benefits of technology and science can be maximised for humans' physical and mental well-being. The sophistication of medical devices can help medical experts such as doctors, surgeons, and others in helping their patients (Ramli, 2021). Medical technologies such as advanced diagnostic equipment, advanced surgical treatments, and the development of effective medicines have significantly contributed to the health field.

For example, magnetic resonance imaging (MRI) technology allows doctors to detect diseases early and aims to treat patients successfully. In addition, advances in biotechnology have produced vaccines that can save the lives of millions of people worldwide. This can be seen when the COVID-19 pandemic occurs; the vaccinated body shows a better immune response to the virus than those who have not received their vaccination (Tan, 2024). This is not in line with the principles of *Maqāṣid Al-Sharīʿa* i.e., *hifzul an-nafs*. Mental health programs that use technology such as mental health applications, online therapy platforms, and digital support for mental well-being are also important to care for the soul (Public Health Malaysia, 2021). Mental health apps that provide guided meditation, stress management techniques, and community support can help

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individuals overcome their psychological challenges. Online therapy platforms allow access to the services of mental health professionals, which may be difficult to reach physically.

With the application of science and technology that focuses on the well-being of the soul, human lives can be saved, and their quality of life can be improved. This ensures that science and technology provide holistic benefits, covering physical and psychological aspects, in line with the principle of *Maqāṣid Al-Sharīʿa* in caring for the soul.

iii- The Application of Protection of Intellect (Hifz al-'Aql) into the Production of Science and Technology

Innovation in education and the dissemination of knowledge through science and technology play a crucial role in developing and protecting human life. Integrating educational technologies, such as e-learning platforms and digital information resources, significantly increases access to knowledge and contributes to intellectual growth.

For example, E-learning and online education platforms like Khan Academy, Coursera, and edX provide access to courses and learning materials worldwide. This allows students from various backgrounds and geographic locations to gain knowledge without physical limitations. The use of technology such as virtual reality (VR) and augmented reality (AR) in education also brings a new dimension to learning, making it more interactive and exciting (Al-Ansi et al., 2023).

In addition, communication technologies such as video conferencing and collaborative applications expand opportunities for academic collaboration and knowledge exchange at the global level (Sai Srinivas & Varaprasad, 2023). Students and researchers can share ideas, carry out joint projects, and attend seminars or workshops without being physically present. This accelerates the spread of knowledge and promotes the integration of thoughts from various cultures and perspectives. By keeping common sense, these innovations ensure that education and learning continue to evolve, adapt to the times, and meet the increasingly complex needs of individuals. This also helps develop a more knowledgeable, critical, and innovative society.

iv- The Application of Protection of Lineage (Hifz al-Nasl) into the Production of Science and Technology

Science and technology can also maintain and improve human health and well-being. These include fertility technologies that assist in obtaining offspring and genetic technologies that ensure the health and well-being of future generations. By preserving the lineage, science and technology ensure the continuation of healthy and competitive generations. Fertility technologies such as IVF (In Vitro Fertilization) provide opportunities for couples facing fertility problems to have children. This technology has brought hope to many couples who previously had no choice (Choe & Shanks, 2023). In addition, genetic technologies such as genetic testing and gene editing (CRISPR) allow early detection and prevention of genetic diseases, ensuring that babies born are free from serious diseases (Subica, 2023).

Technology-based health education also plays an essential role in caring for offspring. Health apps and pregnancy monitoring programs help expectant mothers better care for themselves and their babies (Behnaz et al., 2022). With the right information and support, parents can take the necessary steps to ensure their children's safe birth and good health. By taking care of

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the offspring through science and technology, we can ensure that the next generation is born and raised in healthy and competitive conditions, as well as being able to contribute to society more effectively.

v- The Application of Protection of Property (Hifz al-Mal) into the Production of Science and Technology

Applying science and technology in property management can increase efficiency and reduce waste. Financial technologies such as digital banking and financial management applications help better care and property management (Kagan, 2024). In addition, technology in agriculture and industry can increase productivity and profitability. Protecting property, science, and technology ensures that wealth and economic resources are utilised optimally. Digital banking simplifies financial affairs by providing online services such as money transfers, bill payments, and investments (Looi, 2022). This not only increases efficiency but also reduces transaction costs.

Financial management applications help individuals and businesses better manage budgets, track expenses, and plan finances. These include financial management apps Money Manager, Mint, Monny, You Need A Budget (YNAB), and Wally. By safeguarding property through science and technology, we can ensure that economic resources are utilised optimally, increase wealth, and contribute to overall financial well-being.

Based on the above discussions, it can be concluded that the five main objectives of *Maqāṣid Al-Sharīʿa* — protecting religion, soul, intellect, lineage, and wealth — can ensure that the production and use of science and technology bring comprehensive benefits to humankind. By adhering to these principles, science and technology can empower religious practices, maintain physical and mental safety and well-being, foster intellectual development, ensure the well-being of future generations, and manage wealth efficiently. This approach meets material needs and preserves ethical and moral values in society.

Challenges in Applying the Five Goals of Shariah in the Production of Science and Technology

Although *Maqāṣid Al-Sharīʿa's* ethics and principles must be applied in science and technology, we also face significant challenges. Among the significant challenges encountered are the following:

i. Conflict between Islamic Ethics and Technological Advancement

Technological progress often leads to conflicts or ethical dilemmas, especially from an Islamic perspective. Technologies such as human cloning, stem cell research, and artificial intelligence raise complex ethical issues (Aqeel, 2009). To ensure that this development is in line with the principles of Shariah, in-depth discussion and research between scholars and scientists is required. For example, human cloning raises questions about the uniqueness of God's creation and the rights of cloned individuals; stem cell research raises issues about the life and rights of embryos; and artificial intelligence raises questions about autonomy and moral decisions. Therefore, collaboration between scholars and scientists is essential to evaluate technology through the perspective of *Maqāṣid Al-Sharīʿa*.

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ii. Integration of Islamic Values in Science and Technology

The main challenge in integrating Islamic values in science and technology is to ensure that the principles of *Maqāṣid Al-Sharīʿa* are applied comprehensively in the research and development process without hindering innovation. This requires a deep understanding of how values such as preserving religion, life, reason, lineage, and property can be integrated into modern technologies. To achieve this goal, collaboration between scholars and scientists is important so that technology development aligns with Islamic teachings and benefits society.

iii. Lack of Specialists in Interdisciplinary Fields

A major obstacle is the lack of experts with in-depth knowledge in Shariah and science/technology fields. Most experts specialise in only one field, either Shariah or science/technology, which causes difficulties in formulating policies and applications that align with the principles of *Maqāṣid Al-Sharīʿa*. This hinders efforts to ensure that technological innovation does not conflict with Islamic values and can be applied effectively in the current context.

From the above discussions, we have faced several significant challenges in applying Shariah's five goals to the production of science and technology. Challenges include conflict between Islamic ethics and technological advancement, integration of Islamic values in science and technology, and lack of specialists in interdisciplinary fields. To overcome these challenges, close collaboration between scholars and scientists is required to ensure that technological advancement is consistent with Islamic principles and benefits human well-being. With a comprehensive and ethical approach, we can ensure that science and technology progress responsibly and follow Islamic values.

Conclusion

In conclusion, applying the five goals of Shariah in the production of science and technology ensures that innovation is in line with Islamic principles, preserving human well-being and preventing harm. Science and technology can be developed responsibly and ethically by focusing on preserving religion, life, reason, posterity, and property. This approach ensures that every innovation not only prioritizes technological progress but also takes into account human and moral values, helping prevent the misuse of technology that can lead to social and ethical harm. Additionally, collaboration between religious-based scholars and scientists is important to evaluate and coordinate technological developments with *Maqāṣid Al-Sharīʿa*. With this comprehensive approach, human well-being can be improved comprehensively and lastingly, guaranteeing a better and safer future. Moreover, by aligning these innovations with SDG objective 4, we can promote inclusive and equitable quality education and lifelong learning opportunities, ensuring that technological advancements contribute to the overall growth and empowerment of individuals and communities.

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