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Redakcja wydawnicza: Jadwiga Marcinek
Redakcja techniczna: Barbara Łopusiewicz
Korekta: Justyna Mroczkowska
Łamanie: Agata Wiszniowska
Projekt okładki: Beata Dębska

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Wstęp

Ubezpieczenie jako urządzenie gospodarcze funkcjonuje od bardzo dawna. We współczesnych czasach w wielu krajach w ramach rynków finansowych działają rozwinięte w różnym stopniu rynki ubezpieczeniowe. Ryzyko, które towarzyszy człowiekowi od zarania dziejów i które dało początek zorganizowania instytucji ubezpieczenia, występuje ciągle i jednocześnie na skutek rozwoju cywilizacyjnego, rozwoju technologicznego oraz zmieniających się procesów demograficznych. Pojawiają się nowe kategorie ryzyka, które mogą być przedmiotem ubezpieczenia. Wobec zmieniającego się otoczenia rynek ubezpieczeniowy dostosowuje się i proponuje nowe produkty ubezpieczeniowe. Jednocześnie zakłady ubezpieczeń z obowiązku muszą dbać o bezpieczeństwo finansowe swoich klientów, aby nie podważyć podstawowej zasady realności ochrony ubezpieczeniowej. Wszystkie te zjawiska można zaliczyć do obszarów badawczych środowiska akademickiego zajmującego się problematyką ubezpieczeniową. Ponadto nowe tendencje, które pojawiają się w systemach emerytalnych, wywołane starzeniem się społeczeństw i niewydolnością repartycyjnego systemu emerytalnego, a równocześnie pojawiającymi się kryzysami na rynkach finansowych, generują cały szereg problemów badawczych, które są również w zasięgu zainteresowań wielu środowisk akademickich. Funkcjonujący w Polsce od kilkunastu lat nowy system emerytalny budzi różne kontrowersyjne dyskusje i skłania do wstępnej oceny, a zagadnienia te wiążą się z funkcjonowaniem systemu ubezpieczeń społecznych, w tym również z finansowaniem ochrony zdrowia.

Jak widać, tematyka badawcza obejmująca bardzo szeroko rozumiane ubezpieczenia od strony teoretycznej, jak również praktyki ubezpieczeniowej, jest niezwykle obszerna. Wszystkie te problemy są zawarte w przygotowanej pracy.

Zbiór zawiera artykuły, zaprezentowane na IX Międzynarodowej Konferencji „Ubezpieczenia wobec wyzwań XXI wieku”, która odbyła się w maju 2015 r. w Rydzynie. Konferencja jest organizowana z inicjatywy i w wyniku współpracy Uniwersytetu Ekonomicznego w Poznaniu i Uniwersytetu Ekonomicznego we Wrocławiu. Biorą w niej udział osoby reprezentujące wszystkie czołowe krajowe środowiska akademickie zajmujące się problematyką ubezpieczeniową oraz przedstawiciele praktyki ubezpieczeniowej. Od kilku lat przyjeżdżają również uczestnicy z zagranicy, z takich państw, jak: Rosja, Ukraina, Białoruś, Słowacja, Czechy i Niemcy. Tematyka badawcza prezentowana na obradach koncentruje się wokół następujących zagadnień:

- Funkcjonowanie rynku ubezpieczeniowego w Polsce i w świecie
- Zarządzanie ryzykiem w ubezpieczeniach
- Gospodarka finansowa ubezpieczycieli



- Zastosowanie metod ilościowych w ubezpieczeniach
 - Problematyka prawna w ubezpieczeniach
- Artykuły opublikowane w tym opracowaniu dotyczą powyższych zagadnień.

Pragniemy wszystkim Autorom serdecznie podziękować za przygotowanie interesujących artykułów poruszających wiele ważnych, aktualnych problemów i mamy nadzieję, że publikacja ta wzbogaci literaturę ubezpieczeniową i będzie inspiracją do dalszych badań.

W imieniu Autorów i własnym wyrażamy głęboką wdzięczność recenzentom: Pani Profesor Marii Balcerowicz-Szkutnik, Pani Profesor Teresie Bednarczyk, Panu Profesorowi Jackowi Lisowskiemu, Panu Profesorowi Markowi Monkiewiczowi, Panu Profesorowi Kazimierzowi Ortyńskiemu, Pani Profesor Wandzie Sułkowskiej, Panu Profesorowi Włodzimierzowi Szkutnikowi, Panu Profesorowi Tadeuszowi Szumliczowi oraz Panu Profesorowi Adamowi Śliwińskiemu – za cenne uwagi, które pozwoliły nadać publikacji lepszy kształt.

Redaktorzy naukowci
Wanda Ronka-Chmielowiec
Patrycja Kowalczyk-Rólczyńska

Rafał Komorowski, Katarzyna Kubiszewska

Gdansk University of Technology

e-mails: rkomorowsk@zie.pg.gda.pl, katarzyna.kubiszewska@zie.pg.gda.pl

ISLAMIC TAKAFUL: HAS IT SUCCESSFULLY SUBSTITUTED CONVENTIONAL INSURANCE?

ISLAMIC TAKAFUL: CZY SKUTECZNIE ZASTĄPIŁ UBEZPIECZENIA KOMERCYJNE?

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Summary: Islamic finance is a fast developing sector mainly present in the Middle East, South-East Asia, Central Asia and to a smaller extent in Africa and Central Europe. Together with the rebirth of Islam in the second half of the 20th century, Islamic finance tends to cover the economic needs of all Muslims (including insurances). The Islamic finance system is based on several principles including three main prohibitions: Gharar (deceptive uncertainty), Riba (usury) and Maysir (gambling). The concept of conventional insurance is based on rules that are contradictory to those principles and this poses a challenge for developing Islamic insurances. A comparative analysis approach was utilised to prove whether Takaful's customers would receive at least equal value as the customers who would decide for the conventional insurance. As the success of this substitution the authors have taken the complementarity of Takaful's deliverables and functions in comparison to the traditional insurance model. This study also aims to examine how the Islamic finance sector has responded to the growing demand for insurance products across Muslims, whilst remaining within the principles. The authors also attempt to examine the core differences between conventional insurance and its Islamic equivalent (Takaful). Apart from the research goals, the authors also want to popularize knowledge about alternative financial products. For the research secondary data were collected from books, articles and Internet resources such as Thomson Reuters' databases. The authors have used literature studies and secondary research of both a qualitative and quantitative nature.

Keywords: Islamic Takaful, conventional insurance, Islamic finance, demand, substitute.

Streszczenie: Finanse islamskie są szybko rozwijającym się sektorem, obecnym głównie w Azji Południowo-wschodniej oraz Centralnej, na Bliskim Wschodzie oraz w mniejszym stopniu w Afryce oraz Europie Środkowej. Razem z odrodzeniem islamu finanse islamskie zmierzają do objęcia swoim zakresem wszystkich ekonomicznych potrzeb (w tym ubezpieczeń). Koncepcja ubezpieczeń tradycyjnych jest oparta na zasadach, które są sprzeczne z zasadami islamu, co sprawia, że stworzenie ubezpieczeń islamskich jest wyzwaniem. Celem niniejszego badania jest sprawdzenie, czy klient islamski korzystający z Takaful otrzyma taką samą wartość jak klienci, którzy mogli wybrać ubezpieczenie konwencjonalne. Sprawdzenie to zostało dokonane na podstawie porównania konstrukcji i funkcji Takaful z ubezpieczeniem



tradycyjnym. Jako kryterium sukcesu autorzy przyjęli pełną komplementarność funkcji Takaful względem ubezpieczenia tracyjnego. Podjęli również próbę zbadania kluczowych różnic pomiędzy ubezpieczeniami konwencjonalnymi oraz islamskimi – Takaful. Jednocześnie autorzy zbadali, w jaki sposób sektor finansów islamskich zareagował na rosnący popyt na usługi ubezpieczeniowe w zakresie ekspansji technologicznej (produktowej).

Słowa kluczowe: Islamic Takaful, ubezpieczenia komercyjne, finanse islamskie, popyt, substytut.

*By my life (which is in God's power),
nobody will enter Paradise if he does
not protect his neighbour who is in
distress.*

Imam Ahmad bin Hanbal

1. Introduction

After nearly half a century Islamic finance developed not only as a concept but also as a financial system in countries such as Malaysia, Saudi Arabia and Iran. As Islamic finance contracts are considered low-risk and are a means of establishing cross-border relations, the United Kingdom has decided to make London a European hub for Islamic finance.

Besides territorial development the sector has also experienced significant technological (product) expansion over a period of 30 years. In 1970 Islamic banks were located mainly in the Persian Gulf region. Then in 1980 the first Islamic insurance (Takaful) companies and Islamic investment companies were observed. By 1990 the system had its own asset management companies, investment banks and brokerages. In 2000 Islamic finance entered e-commerce.

Muslim customers, like any other customers, have the need to use various financial products like bank accounts, insurances and mortgages. Because of specific requirements (mainly limitation) defined by the religion, Islamic financial services are experiencing challenges to deliver same business outcomes as their conventional equivalents. This means the customers could receive Islamic products which are worse in terms of outcomes than their conventional equivalents.

The Islamic finance sector tries to fulfil this market demand by developing new complementary products and at the same time keep them compliant with Sharia. Bearing in mind, that Takaful is a product offered to Muslims, the authors attempt to resolve the problem – whether Islamic Takaful has successfully substituted conventional insurance functions for its target customer group.

Islamic Takaful (Islamic insurance) is an example of a basic financial contract (product) that is very popular and developed in all markets across the entire world. Let us compare it with conventional insurance and check whether Islamic insurance delivers same functions and outcomes as its conventional equivalent.



2. Takaful as Islamic finance contract

When studying or researching Islamic economy or Islamic finance it is important to be aware that these are based on the assumption that Allah is the ultimate owner of every good on earth, while people, to fulfil their obligations towards him, can possess goods. Secondly, in the Islamic economy the concept of contract has a very important place. Islam defines contract as a limited-by-time tool with a clearly defined goal that has to be achieved by the parties involved. Contract is also very important from the perspective of *Sharia*. *Sharia* scholars explain the importance of contract through the analogy that God's law is also considered a contract between men and God.

Therefore every financial product in Islamic finance is considered as a contract and subject to certain rules as dictated by *Sharia*.

2.1. Islamic Finance principles

The entire Islamic finance system is built on three major prohibitions and one universal rule (see Figure 1). All of them are embedded in the main sources of Islamic law (*Sharia*) [Adamek 2010].

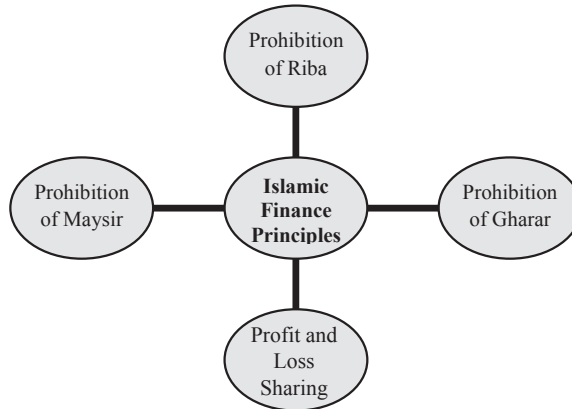


Figure 1. Core principles of Islamic finance

Source: own elaboration

Riba is roughly translated as usury or unjust gains that are made in trade or any other business. However, in the majority of cases it is simply interpreted as the interest rate for loans in cash or kind [Górak-Sosnowska, Masiukiewicz 2013].

The second principle is the prohibition of *Gharar* – uncertainty or deceptive uncertainty that can cause loss for one of the contract partners. Some Islamic finance scholars claim that conventional insurance is an example of *Gharar*, as the insured



pays a premium and does not receive any counter value, or in the case of a claim, the insurer pays much more than was received with premiums [Ahmad 2002].

The third principle is the prohibition of *Maysir*. H. Bin Salamon, M. Ebrahimi and K. Yusoff explain that *Maysir* means exactly the same as gambling [Salamon et al. 2015]. Similar to *Gharar*, *Maysir* has elements of uncertainty, just as conventional insurances do. The result of an insurance contract is by its nature unknown, so it is illegal [Hussain, Pasha 2011].

The last principle is the Profit and Loss Sharing (PLS) rule, which has dominated Islamic finance literature [Ahmad 1993]. Whenever there is a loss or gain the parties share them with each other. No interest is allowed in this type of partnership at all.

2.2. Takaful genesis and history

The concept of Takaful was practiced before the Islamic period [NuHtay et al. 2015]. W. Billach has researched systems like *al-Diyat* (blood money), *al-Aqilah*, *Ma'qil*, *al-Qasamah*, *al-Tahanud*, *al-Diwan* and *Dhaman Khatar* [Billah 2003], which were all premised on the blood money concept. Blood money is a compensation paid to the family of victims, for example in a case of unintentional manslaughter.

This sort of practice was later developed into *al-Aqilah*, which literally means the slayer's paternal relative who pays the blood money. This practice was performed by establishing a common fund between the Meccan immigrants and the Medians – where the members paid annual contributions through a fund called *al Kanz*. The *al-Aqilah* became mandatory after the prophet Mahommed and the later caliph Umar Al Khattab approved it.

Khaldun describes another interesting practice that was present in Arabic trade expeditions called winter and summer voyages. Every member of the group participated in a scheme to secure all members of the group against loss of their stock or profit [Khaldun 1969].

The insurance concept has developed throughout the years in the Arabic world, but the first undisputed jurist who recorded its legal basis, concept and meaning was Ibn Abidin. He described insurance premium as security (Arabic word *sukra*). The practices defined by this jurist were applied with success to merchants and ship owners, who concluded such contracts to guarantee their ships against risks. Those practices were affirmed by Sheikh Muhammad Abduh¹ and this had an important impact on further insurance development in the Arabic world. This is considered the first legalization of the insurance practices in the Islamic world [Klingmuller 1969].

The legalization of insurance in the Arabic world was followed by the Islamic renaissance in the second half of the 20th century. It was buoyed by a need for people to harmonize their life with their religion in many possible areas.

¹ Abduh Muhammad: born in 1849-1905. Islamic scholar, jurist and liberal Islam reformer. The Great Mufti of Egypt.

This was followed with the creation of the first Islamic Financial Institutions (IFI) in the early 1970s, and included banks and Takaful companies. The below table illustrates the major milestones that have had a significant impact on Islamic Takaful creation and development.

Table 1. Takaful development milestones

Milestone	Date / period
Practices of blood money	Before 5 th Century
Winter and summer voyages	12 th Century
Sheikh Muhammad Abduh legalizes insurance premium	Second half of the 20 th century
First Takaful IFI created	1970
Takaful Act was created in Malaysia	1984
Takaful industry reaches nearly 200 specialized IFIs	2014

Source: own elaboration

The final breakthrough in Takaful development took place in 1984 when Malaysia introduced its Takaful Act, which was the first in the world to regulate the Islamic insurance and re-insurance market in one country [Mahmood 1991]. Other states supported Islamic insurance later, by amending or endorsing their insurance regulations to address the unique requirements of the Takaful and re-Takaful. In line with the Islamic finance sector, Islamic Takaful has been developing very quickly, from less than 10 Takaful companies in the early 1980s to a multi-billion dollar industry with more than 200 entities in 2012.

2.3. Takaful construction and compliance with Islamic finance principles

Islamic Takaful, like any other Islamic contract, is subject to principles and prohibition that are executed by the Sharia Boards which operate within the Islamic Financial Institution (IFI). Islamic scholars accept the idea of risk sharing for individuals, society and companies that are covered by conventional insurance, but do not accept it when it is based on gambling, uncertainty and interest [Wahabet al. 2007]. This is why they have created a model that brings the benefits of insurance to the Islamic markets.

The table below illustrates the major conditions that a Takaful has to fulfil to be certified by a Sharia board.

Takaful is a contract that is based on mutual cooperation and donation (*uqudtbarruat*) while the conventional insurance is based on exchange (*uqudmuawadhah*) and contains prohibited elements like *Gharar*, *Maysir* and *Riba*. The donation is created with common funds under a non-compensatory contract known as *tabarru* [Yusuf 2012]. By implementing this voluntary donation model Islamic Takaful avoids embedding elements of *Gharar* and *Maysir*. This contract is managed by an operator who acts only as a trustee and manager of the fund.



Table 2. Core principles of Islamic Takaful

Fulfilment
Based on mutuality and cooperation
Based on contract of donation (<i>tabarru</i>)
Operates under a fund with contributions from clearly defined stakeholders
The Takaful operator acts only as manager and/or trustee
Is based on one of three models: <i>Al-Mudharabah</i> , <i>Al-Wakalah</i> , <i>Al-Waqf</i>
No unlawful elements (<i>Riba</i> , <i>Gharar</i> , <i>Maysir</i> , non-ethical investments)
Presence of moral values

Source: own elaboration

Like any other Islamic financial product, Takaful operates under a frame contract. In this case three types of contracts can be applied: *al-Mudharabah*, *al-Wakalah*, *al-Waqf* or a hybrid of the first two of these.

Al-Mudharabah is trustee profit-sharing that is conducted between the provider of capital and the entrepreneur. Both parties agree to a profit-sharing ratio. In Takaful, the capital providers are the fund stakeholders and the entrepreneur is the operator [Alhabshi, Razak 2011].

Takaful can be also based on *al-Wakalah*. The concept of this operation model is to perform tasks on the behalf of others and can be translated as the term “agency”. In this model, the profit and losses belong fully to the stakeholders (besides the losses that may be caused by the misconduct of the operator). In this model the operator receives a fee – *ujrah*.

The next model that can be applied in Takaful is *al-Waqf*, which means detention. In this model, the stakeholders extinguish their right to their contributions and transfer the ownership to Allah. The operator establishes a special *Waqf* account within the Takaful Risk Fund. All expenses that are related to operating the fund are charged to the fund.

Last but not least is a hybrid business model, which is a combination of *al-Mudharabah* and *al-Wakalah*. In this model, the operator acts as an entrepreneur and agent – *Wakeel*. The stakeholders act as a provider of capital and principal to the agent. In this situation, an agency fee can be remunerated from the fund (*al-Wakalah*) and will also have its share in returns on investments from the fund (*al-Mudharabah*).

3. Takaful and the market

Browne and K Kim have shown that the entire service sector has grown rapidly since 1945 [Browne, Kim 1993]. In 1990 the service sector constituted 60% of the world’s GDP. The insurance industry took a large share of the service pie, with over a 10% annual growth rate.



The Islamic insurance operating model was finally defined in the early 1980s. Its main markets are South-East Asia, Central Asia, Central Europe, the Middle East and Africa, with more than 200 IFIs globally. From the above list, the ultimate leader in the Takaful industry is Malaysia, mainly thanks to a government that supports Islamic finance by implementing favourable legal acts. In 2009 their Islamic banking assets accounted for 25% of its banking system, and it is forecasted to reach 40% in 2020 [Fraiser-Nelson 2014]. Besides Malaysia there are two other key players: Saudi Arabia and the United Arab Emirates (UAE).

The size of the Takaful sector correlates with the overall size of the Islamic finance sector. In the figure below we can compare the size of the Islamic banking assets between the major players.

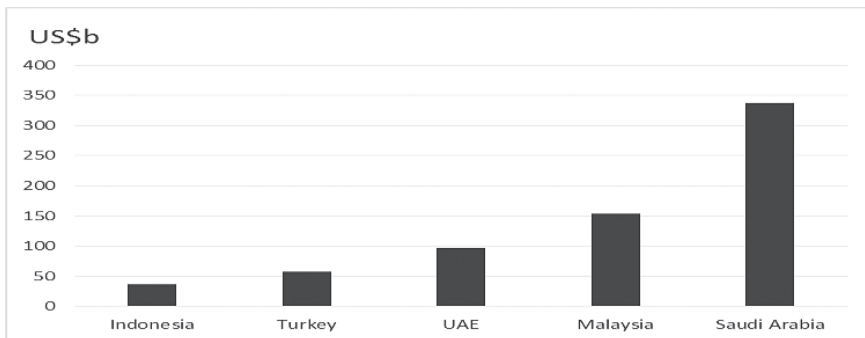


Figure 2. Islamic finance assets with commercial banks (US\$b), 2014

Source: EY, Global Takaful Insights 2014

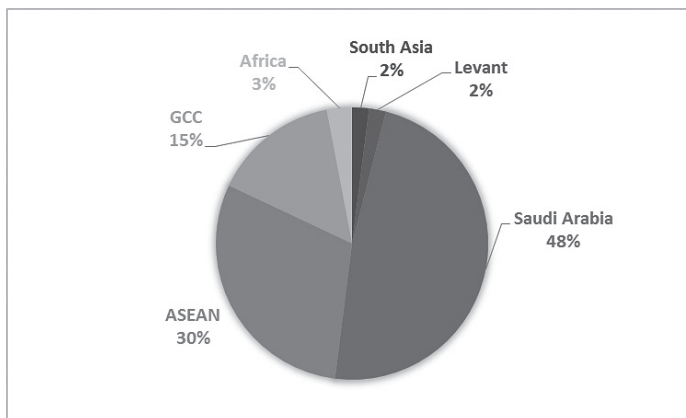


Figure 3. Global Takaful share by region, 2014

Source: EY, Global Takaful Insights 2014



There is a clear distinction between the top players and the rest of the world in terms of Islamic finance size. The figure below illustrates the Global Takaful share by regions, which also confirms this statement.

Figure 4 represents the number of Takaful institutions in particular countries, limited to the countries where the number of Takaful institutions exceeds one.

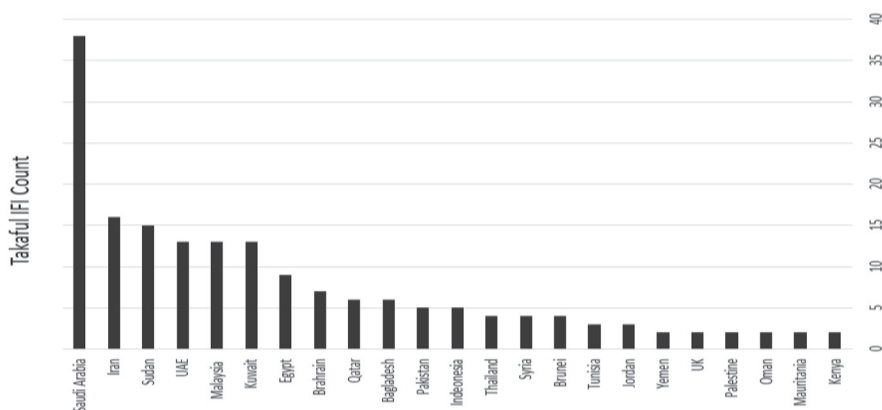


Figure 4. Takaful IFIs per country

Source: Own study based on: http://www.takaful.coop/index.php?option=com_content&view=article&id=46:full-takaful-operators&catid=46:directory&Itemid=136

Table 3. Takaful companies to citizen ratio in selected countries, 2015

Country	Takaful IFI Count	Population (Mln.)	IFIs / Population
Sudan	15	4.4	3.40
UAE	13	3.9	3.33
Malaysia	13	3.9	3.33
Saudi Arabia	38	24.9	1.52
Kuwait	13	45.5	0.28
Iran	16	64.5	0.24

Source: own study base on: http://www.takaful.coop/index.php?option=com_content&view=article&id=46:full-takaful-operators&catid=46:directory&Itemid=136

Saudi Arabia is the undisputed leader in terms of Takaful availability, leaving other players far behind. Apart from Saudi Arabia we can observe that there are 5 other countries where the Takaful availability can be classified as high. These are Iran, Sudan, the United Arab Emirates, Malaysia and Kuwait. In those countries the number of Takaful IFIs ranges from 13 to 16. The number of IFIs was divided by the number of citizens to calculate a ratio. Table 3 illustrates the number of Takaful IFIs in relation to population size. The data is also sorted by descending ratio.

In Table 3 Saudi Arabia takes fourth place due to the high number of citizens. It is very interesting that Sudan has taken the first place in this study. This might be because between 1979 and 2007 the Sudanese market accepted Takaful products as a strategic tool for economic and social development. The Takaful sector in Sudan developed mainly for the agricultural sector. Additionally president Omer El-Bashir supported Takaful development as a core policy for agricultural development [Kassim 2005].

3.1. Differences between Takaful and conventional insurance

Contrary to conventional insurance Takaful is restrained by the principles of Islamic finance. Takaful is a product which has been created to address specific group

Table 4. Key differences between Islamic and conventional insurance

Insurance type / Factor	Islamic Takaful	Commercial Insurance
Idea (basis)	Mutual help	Commercial gains
Ownership	Fund belongs to the contributors.	The fund belongs to the operator and a group of shareholders who are not the insured.
Operators role	Agent only	Owner, shareholder
Risk sharing	Shared by participants	Transferred from the insured to the insurance company.
Gharar (uncertainty)	The distribution of profits is clearly defined in the contract.	Policyholders are not informed how profits are distributed and what the funds are invested in.
Maysir (gambling)	The participant can withdraw his/her contributions.	Contributions are paid only in cases of claims, so the insured loses the premium. In the case of a claim, the operator can increase the premium paid by the insured.
Riba	Funds cannot be invested in interest bearing instruments (for example policy loans).	Funds are invested in interest bearing instruments (for example securities), which contain elements of interest (<i>Riba</i>).
Profits	Participants of the fund are the owners of any surplus which is returned to them.	Profits from the fund belong to the shareholders (not the participants). Participants are not entitled to any return.

Source: own study



demand for insurance services. It is not a product that attempts to compete with the conventional insurance when considering a wider group of customer apart from Muslims. Does this mean that the customer who decides to purchase Takaful will receive less benefits than the customers who opt for conventional insurance? The key to this question is to understand the differences between Takaful and conventional insurance. The table below illustrates the core differences between Takaful and the conventional insurance.

While Islamic Takaful is based on social solidarity, conventional insurance has only a transactional and commercial goal. In Takaful the operator is not the insurer, but the participants are. The essence of Islamic Takaful is that the participants mutually insure one another. Islamic Takaful can be considered as a social program that aims to collect funds for the aid of participants in the future, whereas conventional insurance is based on risk assumption. A great advantage of Islamic Takaful is the fact that the insured can always withdraw his/her premiums when leaving the fund, while in the traditional insurance model there is no such a possibility. On the other hand traditional insurance allows the insured to transfer the risk onto the insurer, while in case of Islamic Takaful the risks are divided among the participants.

4. Conclusions

To judge whether the Islamic Takaful has successfully substituted conventional insurance the authors have used criteria of functions and outcomes which ensure complementarity of both types of insurance.

Islamic Takaful is a viable alternative to conventional insurance. Despite the fact that it has to fulfil all Islamic finance principles it successfully substitutes conventional insurance because it fulfils all its functions:

- provides certainty through a common fund,
- provides protection through compensations,
- shares the risk among the fund holders,
- provides capital with the investments of the fund,
- improves efficiency by eliminating the worries and miseries of loss.

Islamic Takaful is one of the most important Islamic contracts for a Muslim consumer. Besides fulfilling all the functions specific to conventional insurance it also provides additional benefits that can make them even more attractive to certain groups of customers. A Muslim customer when concluding a Takaful contract not only benefits through fulfilling his/her religious obligations towards Islam, but also becomes part of a mutual-help fund where the participants are shareholders. Another advantage for consumers who decide to participate in the Takaful is that whenever he or she decides to exit the fund a full premium (minus operation costs) will be paid back, while conventional insurance does not offer such a possibility because of its construction and concept.



Of course there are also some disadvantages that make Islamic Takaful less attractive than conventional insurance. One of these is availability, which is very high in Islamic countries such as Saudi Arabia or Malaysia, but very low in less developed countries such as Tunisia. Takaful is a product which is not created for conventional customers, but for Muslims, who are willing to follow strict rules established by Sharia. However, even in the Western world, the insurance based on a model where an insurance company is owned entirely by its policy holders also exists as mutual insurance companies.

Concluding this study, the author has proved that Islamic Takaful is not less competitive than conventional insurance and can even be considered more attractive for the insured.

References

- Adamek J., 2010, *Mikrofinanse islamskie – założenia, produkty, praktyka*, CeDeWu, Wrocław, p. 16.
- Ahmad A., 1993, *Contemporary practices of Islamic financing techniques*, Islamic Development Bank, IRTI Research Paper No. 20, IRTI, p. 27.
- Ahmad W.M.W., 2002, *Some issues of Gharar (uncertainty) in insurance*, Journal Syariah, 10:2, p. 62.
- Alhabshi S.O., Razak S.H., 2011, *Takaful insurance: concept, history and development challenges*, [in:] *The Foundations of Islamic Banking: Theory, Practice and Education*, eds. M. Ariff, M. Iqbal, Edward Elgar, Cheltenham – Northampton, p. 184.
- Billah M.M., 2003, *Islamic and modern insurance: Principles and practices*, Ilmiah Publishers Sdn Bhd, Selangor, pp. 23-25.
- Browne M.J., Kim K., 1993, *An international analysis of life insurance demand*, The Journal of Risk and Insurance, Vol. 60, No. 4, pp. 616-634.
- Fraiser-Nelson E., 2014, *Bank Islam Malaysia: A Global Leader in Islamic Finance*, International Banker, Summer 2014, p. 92.
- Górak-Sosnowska K., Masiukiewicz P., 2013, *Bankowość muzułmańska*, Oficyna Wydawnicza Szkoły Głównej Handlowej w Warszawie, Warszawa, p. 127.
- Hussain M., Pasha A.T., 2011, *Conceptual and operational differences between general Takaful and conventional insurance*, Australian Journal of Business and Management Research, 1(8), pp. 23-28.
- Kassim Z.A.M., 2005, *Takaful: the Islamic way of insurance*, Contingencies, January/February, p. 38.
- Khalidun I., 1969, *The Muqaddimah: an introduction to history; in three volumes*, Vol. 2, Princeton University Press, Princeton, pp. 128-130.
- Klingmuller E., 1969, *The concept and development of insurance in Islamic countries*, Islamic culture, No. 43, pp. 27-37.
- Mahmood N.R., 1991, *Takaful: The Islamic system of mutual insurance: the Malaysian experience*, Arab Law Quarterly, Vol. 6, No. 3, pp. 280-296.
- NuHtay S.N., Hamat M., Ismail W.Z.W., Salman S.A., 2015, *Takaful (Islamic insurance): historical, Shari'ah and operational perspectives*, International Business Management, Vol. 9(1), pp. 65-69.
- Quran, <http://quran.com/> (accessed April 2015).
- Salamon H.B., Ebrahimi M., Yusoff K., 2015, *Speculation: the Islamic perspective; A study on Al-Maisir (gambling)*, Mediterranean Journal of Social Sciences, No. 6(1S1), p. 371.
- Wahab A.R.A., Lewis M.K., Hassan M.K., 2007, *Islamic takaful: business models, Shariah concerns, and proposed solutions*, Thunderbird International Business Review, Vol. 49(3), p. 377.
- Yusuf T.O., 2012, *Prospects of Takaful's (Islamic insurance) contributions to the Nigerian economy*, Journal of Finance and Investment Analysis, Vol. 1, No. 3, pp. 223-224.

