

**Research article**

# Innovation Features of Digital Literacy Services in Shariah Online Trading System (Sots) Application in an Effort to Minimize the Risk of Investing

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**Abstract.**

The development of Shariah Online Trading System (SOTS) on securities is expected to facilitate investors in investing the Sharia sector. However, the majority of SOTS applications have not implemented literacy features related to investment in the Islamic capital market. On the other hand, knowledge and skills regarding financial products and services need to be possessed in order to understand the benefits and risks of these financial products and services. The purpose of this research is to find out about the innovation of financial literacy features, especially about investments in Islamic capital markets so that investors can manage their investments and minimize risk in investing. This research method uses narrative review. The results showed that innovation was carried out by adding features of digital literacy services that contain educational content related to Islamic capital market investment in SOTS applications through educational content presented in various formats.

**Keywords:** Innovation; Digital Literacy Services; SOTS; Risk; Investment

## 1. Introduction

The capital market industry in Indonesia is experiencing an excellent growth trend in the midst of the Covid-19 pandemic, even having a very vital role in driving economic growth (1). As of the end of October 2021, the number of investors in the capital market reached 6.76 million with growth of 74.15% compared to 2020 (2). In fact, the composition of the capital market is dominated by the Islamic capital market of 56.9% of the total shares listed in PT. Indonesia Stock Exchange in October 2021 (3). Until September 2021, the number of Islamic stock investors was recorded at 1.06 million investors with a sharia stock capitalization value of Rp 3,683 trillion in October 2021 and contributed 47% to stock trading when viewed from the average value of daily transactions (4).

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The significant growth of Islamic capital markets succeeded in earning the Indonesia Stock Exchange (IDX) the international Global Islamic Finance Awards (GIFA) for three consecutive years since 2019 (5). The award is the highest award in the global Islamic capital market industry and is a form of recognition of the international Islamic finance industry to Indonesia's Islamic capital market. IDX is considered successful in encouraging the development of Islamic capital markets consistently through various initiatives and activities to develop access and products, infrastructure, and socialization and education. One of them is through the utilization of financial technology in the form of Sharia Online Trading System (SOTS) (6).

SOTS is an online system used to transact shares for investors with Sharia principles easily (7). With the development of SOTS in securities, it is expected to make it easier for prospective stock investors to invest their shares in the Islamic sector so as to increase stock investors in the Islamic capital market (8). To date there are 17 active SOTS service providers that have certification from DSN MUI (9). However, the majority of SOTS applications have not implemented literacy features related to investment in the Islamic capital market. In general, it contains only the features of buying and selling shares, updates on stock price developments at all times, indicators to analyze stock prices, financial features of capital market participants to the latest news related to stocks (8). On the other hand, one needs adequate knowledge and skills in using digital technology appropriately, correctly, and securely (10). Knowledge and skills regarding financial products and services also need to be possessed in order to understand the benefits and risks of such financial products and services (11). So that it can avoid investment activities on financial instruments that are not clear.

## 1.1. Innovation

Innovation is defined as an idea, practice, or object that is considered as something new for a person to achieve a particular goal (12). Innovation is done with the aim to keep pace with and keep up with the times. In some cases, innovation is equated with the term discovery or invention or invention. At first glance, the three terms do have the same meaning as discovery but have fundamental differences. Discovery is the discovery of something that actually already exists but is not yet known by many people. Invention is defined as the discovery of something completely new and has not existed before while innovation is an idea, method, and everything that is perceived as a recent thing of a group of people (13).

## 1.2. Digital Literacy

Digital literacy is the ability to use and utilize new media such as the Internet to access, disseminate, and communicate information effectively. Digital literacy is also defined as media literacy that requires a person to have the ability to understand, master, and utilize mass media content (14). Febliza and Oktariani (2020) explained that digital literacy includes not only the ability to use technological, information, and communication devices, but also the ability to socialize, the ability to learn, and have attitudes, critical thinking, creative, and inspiring as digital competencies (15). Kurnianingsih, Rosini, and Ismayati (2017) state that the characteristics of digital literacy refer not only to operating skills and using various information and communication technology devices, but also as a process of reading and understanding the contents of technological devices as well as the process of creating and writing into a new knowledge (16). Hakim (2017) states that information can become new knowledge if it is easily obtained and shared quickly for users who access it (17).

## 1.3. Shariah Online Trading System (SOTS)

Shariah Online Trading System (SOTS) is one of the online trading system services operated based on sharia principles that have been approved by the fatwa DSN-MUI No. 80 of 2011 on the Application of Sharia Principles in equity securities trading mechanisms in the Regular Market of Stock Exchanges. Some standard features in SOTS in general include buying and selling shares, the latest information about stock price developments at all times, indicators to analyze stock price movements, to news related to the company and financial features of market participants. In addition, there are also features that inform the development of islamic capital markets, the development of an online trading system based on sharia principles among only providing stocks that have met sharia criteria. It aims to make it easier for investors to choose sharia-compliant stocks (18).

## 1.4. Risks of Investing

Investors in making every investment decision will always try to minimize the various risks posed, both short-term risks and long-term risks (19). Any changes in micro and macroeconomic conditions will help encourage the formation of various conditions that require an investor to decide what to do and what strategies are implemented in order to still get the expected return or profit share. According to Fahmi (2012), investment

risk can be interpreted as the possibility of a difference between actual return and expected return (20). Every investment decision has a strong association with risk, so risk is always the main parameter to be analyzed when making an investment (21).

Based on the problems that have been outlined, researchers are interested in conducting research with the title "Innovation of Digital Literacy Service Features in Shariah Online Trading System (SOTS) Application as an Effort to Minimize Investment Risk". This research was conducted to find out about the innovation of financial literacy features, especially about investments in islamic capital markets so that investors can manage their investments wisely and minimize risks in investing. This study can also be used as a basis for decision making for SOTS service provider securities companies in improving service innovation through the addition of digital literacy service features and as a means of education for the public as investors so that they can manage their investments wisely and minimize risks in investing.

## 2. Research Method

The research method used is narrative review. The author will look for references from journals taken through the website of global journal publications such as google scholar, garuda ristekdikti, moraref, and other trusted articles. The author included several keywords in the search engine such as innovation, digital literacy, Shariah Online Trading System (SOTS), risk investing. After that the author will extract the results of the journal search with the criteria of exclusion and inclusion that have been determined, namely as follows:

1. Inclusion Criteria: The inclusion criteria specified are Indonesian and English language journals with a publication period of at least the last 10 years that are relevant to the specified topic of discussion.
2. Exclusion criteria: The specified exclusion criteria are journals that cannot be extracted in full paper form, journals whose results of analysis are not relevant to the specified topic.

While the data or written results taken from the website must go through the criteria of website validity first, including not personal data and the site used is an official government website or a site that has HON code certification. Furthermore, the final results of inclusion that have been obtained will enter the processing stage by being analyzed and synthesized which will then be reported in the form of this scientific article.

## 3. Result and Discussion

### 3.1. Concepts and Benefits of Digital Literacy

Digital literacy is the ability to understand and use information in a variety of forms from a very wide range of sources accessed through computer devices. Digital literacy is more associated with technical skills of accessing, stringing, understanding, and disseminating information (22). The year of technological literacy is adapted to the theory of technological determination that says that the people in their lives follow the development of technology (23). Digital literacy is becoming a necessity for people living in the digital era today.

The use of information through digital media is unlimited information for anyone, in the current pandemic society around the world in general makes this digital information a necessity. Including about the development of education in the world, the rapid development of technology. Any information is done through digital media, but will return to each person how to choose the use of good information for yourself (24).

According to Brian (2015), there are several benefits of digital literacy, First save time because digital literacy users do not need to visit directly to the destination to obtain information. Second, learn faster because it can find information faster just by using electronic media such as computers and smartphones. Third, always get the latest information because the existence of digital information can make it easier for someone to get new information. Fifth, make better decisions because it allows being able to search for information, study, analyze and compare it every time.

### 3.2. Development of Digital Literacy

As for the development of digital literacy it is necessary to pay attention to the basic principles, it is delivered (22);

1. (a) Simple understanding includes the ability to extract ideas implicitly and explicitly from the media.
- (b) Interdependence means how one form of media relates to another potentially, metaphorically, ideally, and literally. Today with so many media, forms of media are expected not only side by side, but also complement each other.
- (c) Social sharing is not only a means of showing personal identity or the distribution of information, but it can also create its own message. Who shares information, to whom it is provided, and through what media it provides can

not only determine the long-term success of the media itself, but can also form an organic ecosystem to search for information, share information, store information, and ultimately reshape the media.

- (d) Curation is about the storage of information, such as the storage of content on social media through the method of "save to read later" is one type of literacy that is associated with the ability to understand the value of information and store it to be more accessible and can be useful long-term.

### 3.3. Important Elements of Digital Literacy

An important element of digital literacy is the concern of several abilities that must be mastered in the utilization of information and communication technology. Steve Wheeler (2012) in his paper entitled Digital Literacies for Engagement in Emerging Online Cultures, identified nine important elements in the world of digital literacy such as social networking, transliteracy, maintaining privacy, managing identity, creating content, organising and sharing content, reusing / repurposing content, filtering and selecting content, and self broadcasting (25).

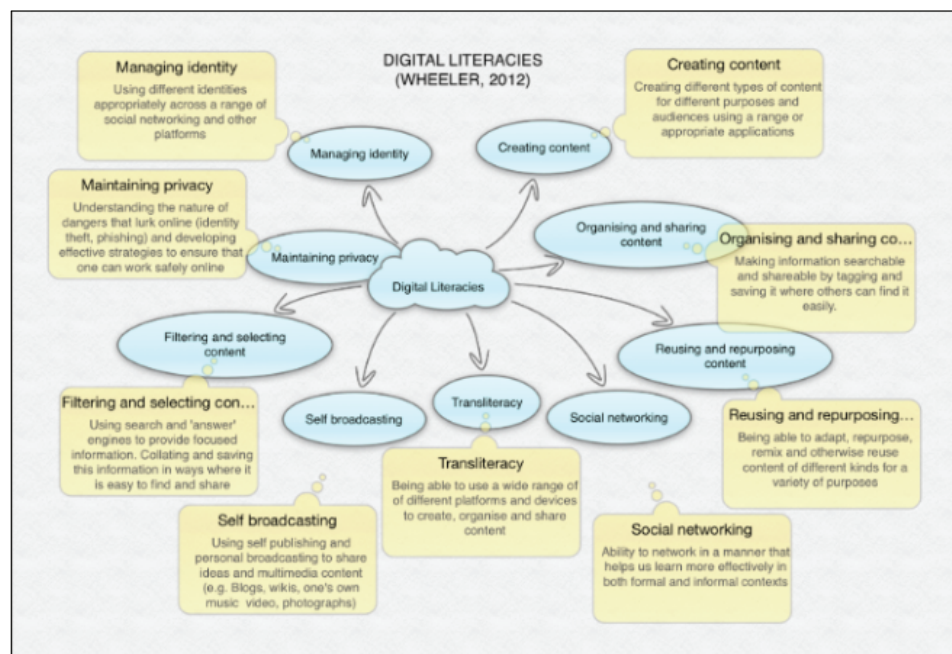


Figure 1: Nine elements of digital literacy according to Steve Wheeler (2012).

#### 1. Social Networking

Every individual involved in online social life will always be faced with such services. Utilizing the services of social networking sites needs to be selective and careful.

Knowledge of mapping the use of social networking sites based on their function will certainly be better.

## 2. Transliteracy

Transliteracy is defined as the ability to utilize all different platforms, especially to create content, collect, share and communicate through various social media, discussion groups, smartphones and various online services available.

## 3. Maintaining Privacy

The important thing in digital literacy is about maintaining privacy or maintaining privacy in the online world. Understand from all types of cybercrime such as online theft through credit cards (carding), know the characteristics of fake sites (phishing), fraud via email and so on. Displaying an online identity is only necessary to avoid something unwanted.

## 4. Managing Digital Identity

Managing digital identity is related to how to use the right identity on various social networks and other platforms.

## 5. Creating Content

Creating content or related to a skill on how to create content in various online applications and platforms such as in PowToon, Prezi, blogs, forums, and wikis. It also includes the ability to use various e-learning platforms.

## 6. Organising and Sharing Content

Organizing and sharing content is organizing and sharing information content to make it easier to spread. For example, the use of social bookmarking sites facilitates the dissemination of information that can be accessed by many users on the internet.

## 7. Reusing/repurposing Content

Able to create content from various types of information available to produce new content and can be reused for various needs.

## 8. Filtering and Selecting Content

The ability to search, filter and select information appropriately in accordance with the desired needs for example through various search engines on the internet.



## 9. Self Broadcasting

Self broadcasting aims to share interesting ideas or personal ideas and multimedia content for example through blogs, forums or wikis. This is a form of participation in online social society.

### 3.4. The Role and Development of Shariah Online Trading System (SOTS)

Shariah Online Trading System (SOTS) is an online system used to transact shares for investors with sharia principles easily (7). SOTS plays a role in encouraging an increase in the number of investors in Indonesia through ease of access in sharia stock transactions through the stock buying and selling feature, updating stock price developments at all times, indicators to analyze stock prices, financial features of capital market participants to the latest news related to stocks (8). The SOTS system was first launched by Indonesia in 2011, until October 2021 the number of SOTS users was 1.06 million investors (5).

### 3.5. Innovation of Digital Literacy Service Features

Feature innovation in SOTS is done by adding digital literacy service features that contain educational content related to Islamic capital market investment in the SOTS application through educational content presented in various formats. The educational content format consists of material delivered through articles, podcasts, youtube videos, and webinars filled by speakers who are experts in finance and capital markets. This educational content is made according to the needs and knowledge levels of users ranging from beginner, intermediate, to advanced levels. At the beginner level, content material is presented specifically for beginners who are starting to explore investment. The material contains the basics that must be understood before making an investment so that the investments made can be minimized risk. Examples of materials at the beginner level include understanding investments, managing money before investing, designing financial resolutions, understanding stocks, the difference between Islamic investments and conventional investments, types of mutual funds, how to join mutual funds, and so on.

At the intermediate level, content material is presented for novice investors who begin to explore investments so that investors are able to analyze independently and have a clear plan through a deeper understanding of science so as to maximize profits through wise decisions. Examples of materials at the intermediate level include knowing



corporate action, transaction mechanisms and stock price formation, ETF investments, peeling the index in IDX, tax-free investments, fundamental analysis, technical analysis, how to screen stocks, how to control emotions and psychological in stock transactions, and so on. While at the advanced level, the content material presented is intended specifically for investors who have completed the material at beginner and intermediate levels. The material presented is advanced material for investors who have made stock buying and selling transactions so that the ability to transact is increasing. Examples of materials at the advanced level include stock trading, how to analyze the company's financial statements, technical trend analysis, candle stick technical analysis, market outlook, and so on. The material provided on literacy service features is delivered attractively through easy-to-understand delivery. Customers are expected to be able to increase their knowledge related to Islamic investment so that the risks posed in investing can be minimized. Here is a comparison of service features on SOTS before and after the innovation of digital literacy service features.

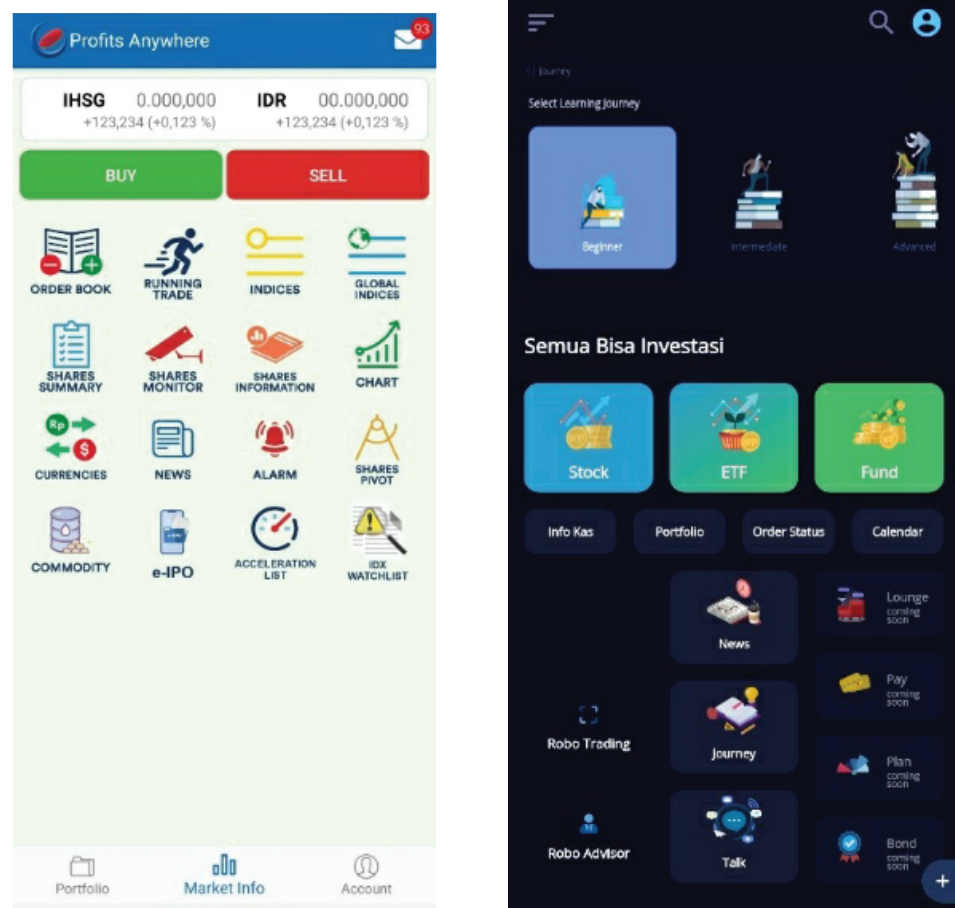


Figure 2: Comparison of digital literacy service features on SOTS before and after innovation.

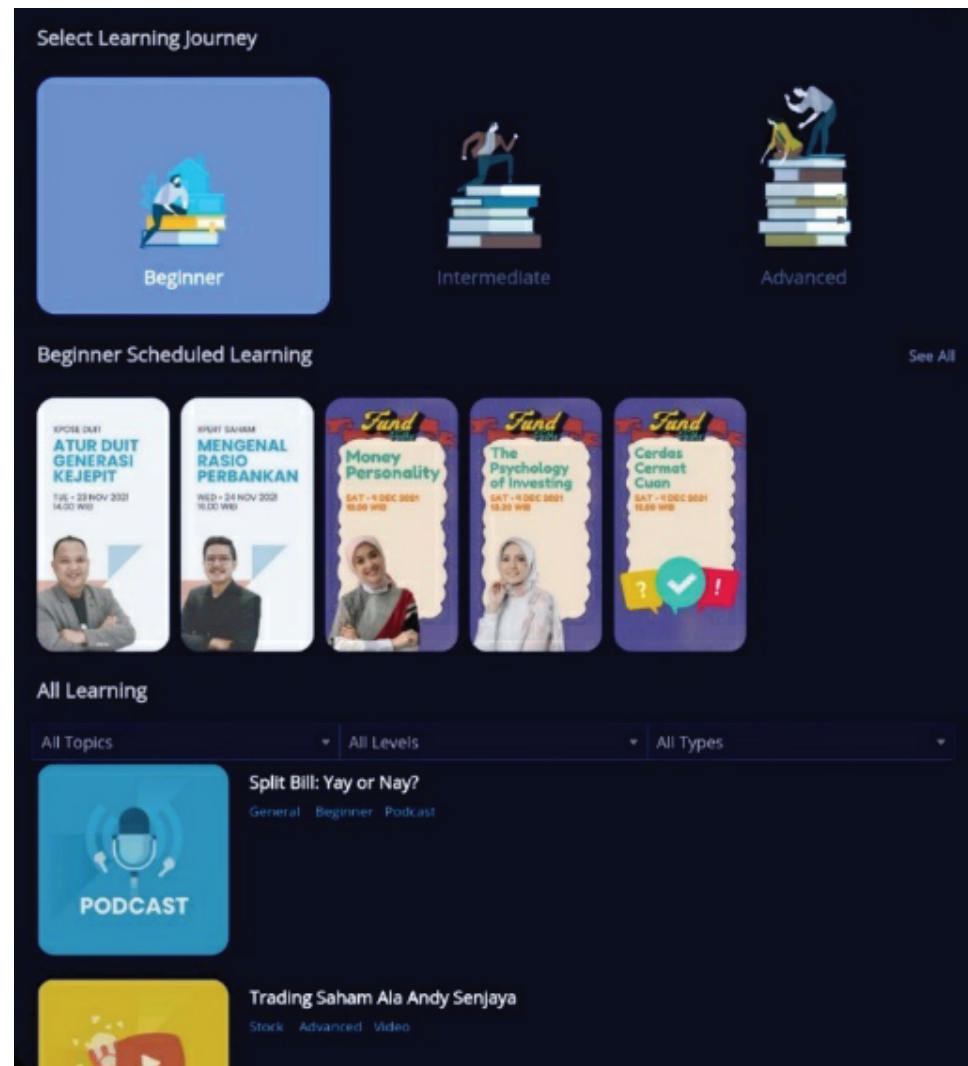


Figure 3: Innovation features of SOTS digital literacy services.

Some of the benefits with the innovation of digital literacy service features on SOTS. First, it can be the answer to all the needs of the investor community as a mediation in accessing information about capital market data. Second, it is one of the efforts in providing convenience for investors in conducting financial planning that is free, comprehensive and easy to use. Third, provide free training on the capital market and transact well so that customers / investors have knowledge and can minimize the risks that exist. Fourth, help in more organized risk management.

Features in addition to digital literacy in SOTS there are several prohibitions on transactions carried out such as, first, margin trading is not allowed to buy shares by borrowing some money from securities companies (brokers). Second, short selling is selling securities that are not or below owned, because it contains gharar elements that cause fraud. Third, cash basis transaction in the form of buying and selling that

must be done in accordance with the capital owned. Fourth, the sharia stock portfolio is separate, containing only sharia shares of companies listed in JII, and if the customer / investor wants to conduct a non-Sharia stock transaction then SOTS will automatically reject the transaction directly. And if the stock is not Sharia stock anymore while the investor once owned the stock, automatically the stock goes into an account that is not Sharia stock, so that the investor does not experience losses. And the agreement used in transactions is bai'almuswamah (continuous) bargaining in the price of demand and supply, and the administrative settlement is done T + 3 where three days after the new transaction money enters the customer's account whose purpose is the customer can hold the transaction in a hurry in order to minimize the element of maisir.

#### 4. Conclusion

Based on data analysis, the results showed that the innovation of service features in SOTS was done by adding digital literacy service features that contain educational content related to Islamic capital market investment in SOTS applications through educational content presented in various formats. Educational content is created according to the needs of investors and user knowledge levels ranging from beginner to advanced. The material is delivered interestingly and easily understood. Customers are expected to be able to increase their knowledge related to Islamic investment so that the risks posed in investing can be minimized. The benefits of innovation in digital literacy service features in SOTS include being an answer to all the needs of the investor community as a mediation in accessing information about capital market data, being one of the efforts in providing convenience for investors in conducting financial planning that is free, comprehensive and easy to use, and provide free training on capital markets and transact well so that customers / investors have knowledge and can minimize the risks that exist. Fourth, help in more organized risk management.

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