'QALBCONNECT' PROJECT BUSINESS MODEL: BUILDING A UNIFIED AND TRUSTED DIGITAL PLATFORM FOR PROGRAM ALERTS AND WELL-CONNECTED MUSLIM COMMUNITY

NURSYAZWANA ATHIRAH SAMSUL BADRI^{1*}, NUR FAIZAH OMAR², NURDIYANA SHAHIRAH AZLAN³, SHAZA SHAMSUL⁴, ABDUL RAHMAN AHMAD DAHLAN⁵

^{1,2,3,4,5}Department of Information Systems, Kulliyyah of Information and Communication Technology, International Islamic University Malaysia (IIUM), Gombak, Malaysia

*Corresponding author: nursyazwanathirah@gmail.com

ABSTRACT: This paper presents a conceptual QalbConnect project business model (BM) for a digital platform/app designed to unify and consolidate Islamic programs on a single, integrated, and trusted platform. This is to help addressing the challenges, extreme pains, essential gains, and important job-to do of various customer segments (CS) by program organizers and participants. The platform addresses the challenges faced by program participants in discovering, attending & engaging with these programs as well as an easy side income for programs organizers. Currently, programs promotion is in silo and fragmented, relying on local mosque announcements, words of mouth, and from various social media platform creating "island of automation". These uncoordinated and silo approaches are no longer sufficient to meet the needs of the society in the digital era, making it difficult for Muslims to easily find and follow relevant programs on a single, integrated, and trusted platform. The platform resolves this silo and uncoordinated issue by consolidating all programs information in a single platform, streamlining the promotion process and making programs more accessible to a wider audience among the community. Employing the Design Thinking (DT) methodology, this paper explores the insights faced by programs organizers and participants through literature reviews, benchmarking, interviews and surveys to understand and define the key challenges, extreme pains, essential gains & important job-to-do of all of the customer segments. Followed by ideation and designing an initial BM with a digital platform/app prototype, using business modelling tools i.e. the Environmental Map (EM), Business Model Canvas (BMC), and Value Proposition Canvas (VPC). The initial BM was tested and validated with the CS. After testing, the validated project business model was established. A strategy canvas was created to compare the validated project business model against other platforms. Finally, this paper offers a validated conceptual business model for QalbConnect as a solution, pain reliever, and gain creator in addressing the important job-to-do, extreme pain, and essential gain of CS. Future works include the development of a detailed Project Management Plan (PMP) for QalbConnect digital platform/app.

KEY WORDS: Islamic programs promotion, Unified & Trusted Digital platform, Entrepreneurship, Knowledge-seeking, Community Engagement

1. INTRODUCTION

There is a limit of understanding of how individual Muslims and the community understand and make use of social media (Larsson, 2024), thus making it difficult to analyze the true impact of *Da'wah* dispersing the community. Therefore, there must be a need to assist the community in spreading the *Da'wah* at an utmost action in this digital era. This is proven based on the document from World Bank (2018) where most Malaysians are connected to the internet and engage in the digital world. The existing digital solutions play a huge role in promoting the *da'wah* programs. However, the media content distributed is inconsistent. In many cases, participants only become aware of programs after they have already taken place, further highlighting the inefficacy of current promotion methods and the need for a more cohesive digital solution. Promotion signaling distortion exists across various settings and can even occur in the form of inefficiencies concerning who is promoted (Waldman, M., & Zax, O., 2016). Thus, there is a risk of creating islands of automation among various digital platforms (Guan et. al, 2017), where efforts to promote Islamic programs remain fragmented.

Therefore, 'QalbConnect' is the proposed digital platform that would provide a unified and trusted solution for the participants to discover current and future programs which enhance their participation in the community. The participants have a wide advantage of accessing a variety of Islamic programs, receive programs calendar with relevant information, receive a real-time notification reminder update, and participate through live streaming options, access to programs materials like videos, recordings and notes. All in all, this digital platform would foster greater community involvement which offers a streamlined approach gathering the community to spread the Islamic knowledge in Islamic programs.

In conjunction with the Sustainable Development Goals (SDG), this platform supports SDG Goal 4: Quality Education, as it enables the participants to participate in Islamic knowledgeable programs and remotely through live streaming breaking the barrier of demographic constraints. Aside from supporting the programs organizers with analytics insight provided by QalbConnect for each program, this platform also helps to promote the Islamic programs to a larger audience and provides options to find volunteers as programs managers of Islamic programs which relatively contributes to SDG Goal 8: Decent Work and Economic Growth. This platform also encourages Muslims to create their own individual or organization programs or class to gain easy income with an easy steps and affordable cost to foster even more entrepreneur among Muslim community. This proposed project also aligns with SDG Goal 16: Peace, Justice, and Strong Institutions, which provides a trustworthy platform for deepening Islamic knowledge, and giving access to everyone to participate, regardless of social status, location, or financial means. Finally, the SDG Goal 17: Partnerships for the Goals correlates to one of the features of the app which foster partnerships with Islamic programs organizers, Muslim-related government agencies, Muslims NGOs, and mosques, across Malaysia, which bridges the gap between the community and large organizations.

2. OBJECTIVES

The main objective of this paper is to develop a conceptual business model for the 'QalbConnect' digital/IT project, which provides up-to-date Islamic programs, promotes Islamic teaching, fosters well-connected Muslims and non-Muslims community engagement, while enhancing societal well-being. 'QalbConnect' aims to serve as a platform for both programs organizers to promote their program effectively and participants to discovering, attending & engaging with Islamic programs. Thus, the paper proposed a unified and trusted digital platform for programs alerts and community connection with these following features to address pain points and creating value:

- a) Unified and trusted Islamic program information, enabling participants to effortlessly discover upcoming Islamic programs across Malaysia.
- b) Offers multiple access options, allowing participants to either attend programs in person or stream them live through the app.
- c) Personalizes profile preferences, enabling participants to tailor their experience by selecting specific interests and speakers, notification settings, preferred venue and programs types they wish to engage with.
- d) Participants have access to programs calendars with detailed information, receive real-time notification for programs updates, reminders and cancellations as well as access to programs materials like videos, recordings and notes.
- e) Community forum to discuss and connect as well as a question-and-answer forum in each program in real-time.
- f) Improves programs promotion by providing program organizers with userfriendly tools to easily list and update programs, track RSVPs, analytical insights and engage wider audiences through advertisement, sponsors and notifications.

3. METHODOLOGY

This paper adapts the Design Thinking (DT) methodology to develop a conceptual business model (BM) for 'QalbConnect' - the Islamic programs management application. The methodology involves conducting a literature review (LR) (Cronin, Ryan, & Coughlan, 2008), benchmarking along with interviews and surveys to understand the challenges and problems faced by various customer segments (CS) (Meyer & Schwager, 2007). This is followed by the ideation and development of the initial business model (Osterwalder & Pigneur, 2010) and finally establishing the validated business model.

Firstly, we empathized with the problem and requirements for the project through a literature review including benchmarking, interviews, and surveys. The literature review was conducted to explore the current challenges faced by customer segments (CS) in promoting and attending Islamic programs. The LR aimed to gather insights about the problems of fragmented programs promotion methods, the effectiveness of current digital platforms for religious engagement, and the business models of similar applications that have been developed.

Following the literature review, interviews and surveys were conducted with various customer segments, including IIUM mosque community (i-Masjid) as program organizer and potential program participants. The main goal of this phase is to define the pain points these challenges impact in their engagement with Islamic programs, as well as the gains through a solution.

Based on the insight gathered from LR, interviews, and surveys, ideation sessions were held to explore creative solutions to address the key challenges and opportunities identified. Business modeling tools such as the Business Environmental Map (EM), Business Model Canvas (BMC), and Value Proposition Canvas (VPC) (Osterwalder et al., 2014) were utilized to develop an initial business model with a digital platform/app prototype for the Islamic Programs Management application. This model outlined key features such as providing tools for organizers to promote programs effectively and revenue stream.

The initial project business model with the digital platform/app prototype were then tested and validated with customer segments. The feedback include the usability of the digital platform/app and its potential to solve the identified challenges. Based on the feedback, the business model was refined, leading to the development of a validated conceptual business model.

Finally, a Strategy Canvas will be developed to compare the current state of Islamic programs promotion with and without the platform, highlighting the improvements provided by the proposed solution (Kim & Mauborgne, 2005; Kim & Mauborgne, 2014). This comparison will demonstrate how the platform effectively addresses key community pain points and enhances overall participation and accessibility.

4. LITERATURE REVIEW

4.1. Humanizing 4IR in the post COVID-19 era

4IR refers to the disruptive transformation of industries through the application of emerging technology (National 4IR, 2021). The Fourth Industrial Revolution (4IR) was shaped by the rise of advanced technologies. It is marked by the emergence of technology including robotics, artificial intelligence, nanotechnology, quantum computing, biotechnology, the Internet of Things, and the 5th wireless technology (). In the 21st century, this technology has become a big part of daily life in many societies. Information Technology (IT) brought many changes in people's lives, influencing their behavior, communication, and lifestyle (Khairudin, Sheikh, 2021). This advancement is not limited to general use but has also permeated humanizing practices and community engagements, particularly within communities. For example, Covid-19 emerged in December 2019, and in March 2020 was declared a pandemic by the World Health Organization (Mishra, S. K., & Tripathi, 2021). In such a situation, it disrupts religious activities not only in Malaysia but also around the world. The coronavirus outbreak forced many religious leaders to accommodate themselves and become content creators by focusing more on social media users and their online engagement (Heilweil, 2020). Many Muslims now use Internet tools for a variety of purposes, such as spreading Islamic teachings, practicing their faith, and engaging in everyday activities (Evolvi, 2021). Increasingly advanced technology has eliminated time and space limits so that da'wah, one of the core Islamic tenets, that was traditionally a person-to-person spiritual interaction can now be done through electronic interfaces (Rouet, 2020). Classical sources inform us how Muslims before used to travel long distances and over long periods of time just to acquire single hadith from a scholar (Cangara et al., 2022). These difficulties during the early waves of the pandemic have led many individuals and religious organizations to imply different strategies by utilizing virtual spaces to communicate with their people beyond the traditional ways (Altawil, Abdulaziz, 2022). Nowadays, technology enables us to reach out to the entire world. Studies have shown that digital platforms enhance participation and awareness in religious events and help create a more interconnected community (McClure, 2017). This proves that advancing technology is important to humanizing the 4IR by focusing on improving lives and building a more inclusive society.

4.2. Bridging Faith and Innovation for the Well-Connected Muslim Community

As technology continues to reshape our world, Islamic community gatherings are embracing innovative approaches to transform how people connect, engage, and celebrate their faith. This evolution fosters deeper connections among community members, encourages more meaningful interactions, and creates a more inclusive experience while blending traditional values with modern influences. Previously, participants traveled from different homes or work locations to attend these traditional conferences together in person (Skrodzki & Damrau, 2022). This meant that people had to physically be present at the event to participate and gain knowledge. However, this approach required significant time, money, and energy. Today, people of all ages are adopting technology in their daily lives. Social media is being used for a variety of purposes, including messaging, emailing, knowledge sharing, chatting, advertising, buying and selling, booking of airlines and hotels, and studying (Gulzar, Ahmad, & Rasheed). This adoption implies that knowledge can now be accessed through digital platforms like Instagram, Facebook, and TikTok. This shift allows for instant connectivity, transcending geographical boundaries and time constraints (Miller et al., 2016, as cited in Omar & Ondimu, 2024). The convenience of using technology has made life easier for a lot of people.

4.3. Event-Enabled Mobile Applications: Seamless and Smart Technological Platforms for Managing Virtual and Hybrid Events and Festivals

The recent catastrophic COVID-19 pandemic has changed the business practice scenario worldwide, the event management market was also affected very much and brought major technological transformation in event management system (Kulshreshtha, S. K., Akoijam, S. S., Kumar, P., & Shukla, U. N. 2024). It is notably known that the COVID-19 has brought anything around us to be digitized. Unconsciously, we need to adapt with this digital era in order for you to not be left behind and this also includes on how we have to adapt a whole new way on how we handle events all this time. However, despite all of these challenges to adapt to the new changes it actually has also opened up the doors to new forms of contextual marketing – the ability to personalise an attendee experience by engaging with them at the right time and in the right place (based on an attendee's location, behaviour or preferences) (Kulshreshtha, S. K., Akoijam, S. S., Kumar, P., & Shukla, U. N. 2024). Mobile Apps can serve both informative needs with personalized (Cheng et al., 2020). The Android app displays a user-friendly interface (Bhanot, et al., 2024). Personalization techniques to keep users engaged (Grua et al., 2022). Consequently, all of these actually create an advantage for people in the market industry as it creates a customized, personalized, interactive and engaging platform

for the customers. With hybrid, virtual, and innovative events being expected for the coming years (Werner et al., 2022). COVID-19 has rapidly changed virtual environment in the global events sector (Lekgau & Tichaawa, 2022). The technological innovation in applications and platforms for web and mobile, have changed the business tourism and event industry (Rady Mohamed, 2022) The attendee can view inside the app, event schedules, maps, speakers' information, and even advanced interesting options that can set a more participatory experience with gamification and augmented reality, as well as giving them direct feedback for their satisfaction and involvement (Aggarwal and Ansari, 2014).

4.4. Collaboration with Islamic Organizations for Streamlined Event Information Sharing

Collaborations with Islamic Organizations across each state in Malaysia is vital to build a comprehensive platform providing recent and accessible information on Islamic events. Therefore, the Islamic Organizations representing various regions, could bridge the communication gap in establishing a dependable platform for updating events (Yaqin, 2022), such as religious talks, Quran recitations and community gatherings. In addition to that, the platform would ease networking among participants and collect valuable data for organizers through engagement tracking (Parab, 2024), by monitoring participation patterns in events and understanding the participants' preferences of Islamic events. This matter also aligns in strengthening bonds of Islamic Ummah (Mohamad et al., 2015) to foster unity in Muslim community (also known as Islamic Ukhuwah) in Da'wah events and gatherings. According to Rismayanti & Rahman (2021), Islamic Ukhuwah is rooted in Islamic teachings. It is emphasized in the Quran and Prophet's teachings about the importance of Islamic society (Saleh, 2012).

4.5. Benchmarking of Programs Organizer Business Models

4.5.1. Cvent

Cvent is a platform that offers tools for event management and attendance tracking (See Fig. 1). Cvent has a feature to mark participant attendance individually or in bulk, which users could opt for manual input or automated check-ins by using the OnArrival app (Jones, 2022). The mobile application is available on both iOS and Android devices, where every 10 minutes, it streamlines on-site check-in process and synchronizes data with Cvent, which enhances real-time attendance monitoring. The BMC for Cvent is in (See Fig. 2).



Fig. 1. Web interface of Cvent (<u>https://www.cvent.com/en/event-management-software</u>)



Fig. 2. Business model canvas (BMC) of Cvent

4.5.2. Eventbrite

Eventbrite is an international marketplace that correlates and caters to two customer groups which are for the event organizers and event attendees (See Fig. 3). With the help of numerous features and tools, it enables the attendees to search, find and buy online tickets while also enabling event planners to plan, advertise, and sell tickets for events. Eventbrite apply a classic freemium business model to operate as the business takes an allocation of payment out of paid events but will not charge on any free events. Every attendee may easily buy tickets to the event that they are interested in as well as discover many new events based on the filtered location and interest such as conferences, music festivals, gaming competition, political rallies and many more. Even so, Eventbrite's main targets are intentionally for smaller functions and corporate events such as business conventions. However,

in addition to the ticket pricing, the business charges a 2.5% fee, up to a maximum of \$9.95 per ticket, plus \$0.99. The processing fee for credit cards is an additional 3%. (Free events are not charged.) There is no advertising from the company (Tomio Geron, 2011). The company processed more than 200 million tickets in more than 180 countries and more than \$3.5 billion in gross ticket sales as of 2015 (Connie Loizos, 2015). (See Fig. 4).



BUSINESS MODEL CANVAS: Designed by VIZOLC **EVENTBRITE** Key Activities Value Custome Key Partners 98 Custome . 泪 ŵ 电 Propositions Relationships Event organizers Platfo Segments Self-service Venues
 Payment processors
 Marketing and adver Event organ
 Marketing comprehensive knowledge base ting and nated event rem assistance Payment processing Customer support Data analysis and rep. Vacance Ticket pport via email and cha Technology providers nmunity forums for event orga Sponsors
 Affiliates
 Social media platforms
 Ticket buyers
 Event service vendors /endor management event discovery nterprise executive discovery recommendation
 Integration with services
 Community building dation with thi heized Social media engagement Regular feedback and surveys for Social m Event management platform
 Payment processing system
 Event data analytics tools
 Strong brand reputation
 Network of event organizers and att
 Strategie partnerships with venues
 Skilded technical and marketing tes oyalty and referral progr Key Resources 🐽 tation and training fo nt organize Channels 0 Mobile application Customer support infrastructure Cloud storage and computing se Revenue Stream ш Cost Structure Sales and business development Ticket Fees Service Fees · Payment processing fees Service record
 Sponsorships
 Partnerships
 Payment Processing fees Marketing and adv Regulatory and comp maintenance · Event organizer support services Partner co · Data storage and security Customer support and services

Fig. 3. Web interface of EventBrite (https://www.eventbrite.com/)

Fig. 4. Business Model Canvas (BMC) of EventBrite

4.5.3. Bizzabo

Bizzabo is one platform that helps people plan, promote, and manage events, all in one place (See Fig. 5). With Bizzabo, organizers can handle everything from ticketing and registration to creating a website and promoting the event, both in person and virtually. Bizzabo was developed to make events more engaging with attendees. It offers interactive tools like live polls, Q&A sessions, and chat channels

to keep people connected and involved. The app also lets the attendees customize their schedules, receive important notifications of event updates, and connect with others. Next, the Bizzabo app has a feature called Klik SmartBadge, a wearable device that lets attendees exchange contact details with a simple tap, making networking easy and efficient. For the event organizers, Bizzabo provides analytics and reporting tools that help track event success in real-time. The platform's dashboard will provide data on ticket sales, attendees, and engagement rates, helping organizers see what worked well and what could be improved. Bizzabo is particularly useful for small to medium-sized businesses that need a reliable and user-friendly event management solution without relying on multiple tools and vendors. (See Fig. 6).

	Join us on No	v 13 at 1 pm ET to discover how to plan smarter, bu	dget better, and future-proof your 2025 event	
Bizzabo		Products ~ Solutions ~ I	Klik Resources 🗸 About Us 🗸	Pricing Get a Demo Login Q
Event Experience C)S	Capabilities		
Event Software Overview		Event Lead Capture App Boost event ROI with advanced lead tools	Room Block Management Automate and oversee group bookings	
Klik Experiential &	_ =	Audience Engagement Offer more interactive experiences	Event Networking Help make meaningful connections	
SmartBadge	EW)	Event Marketing Build more personalized journeys	Onsite Software & Wearables Reimagine your in-person events	
Security & Compliance		Event Live Streaming Deliver TV-quality broadcasts	Sponsors & Exhibitors Manage partnerships seamlessly	See product updates in our quarterly spotlight
Enterprise Event Software		Mobile Event App Build the ultimate event hub	Event Registration Software Streamline the event ticketing process	Read more
· · · · · · · · · · · · · · · · · · ·	n unforgett	able, streamlined experience		

Fig. 5. Web Interface of Bizzabo (https://www.bizzabo.com/)



Fig. 6. Business Model Canvas (BMC) of Bizzabo

5. INITIAL PROJECT BUSINESS MODEL (BM) – USING BMC & VPC

5.1. Initial Business Model Canvas (BMC)

QalbConnect is a user-friendly digital platform designed to bring Islamic programs for well-connected Muslim and non-Muslim community in Malaysia. It makes it easy for everyone to find out where and when these programs are happening, ensuring that no one misses out on opportunities to connect with their community. Program organizers can easily promote their programs and events, and to attract participants, fostering a vibrant community spirit and societal well-being. QalbConnect will take into account participants preferences by offering personalized recommendations and seeking feedback to improve their experience.

INITIAL BUSINESS MODEL CANVAS: QALBCONNECT



Fig. 7. Initial QalbConnect Business Model Canvas (BMC)

VALUE PROPOSITION CANVAS



Fig. 8. Individual Program Organizer Value Proposition Canvas

VALUE PROPOSITION CANVAS



Fig. 9. Mosque Organization Program Organizer Value Proposition Canvas

VALUE PROPOSITION CANVAS



Fig. 10. Participants Value Proposition Canvas

6. CONDUCT VALIDATION OF INITIAL BM & KEY FINDINGS

Surveys are disseminated to different customer segments to ensure the correct validation of the initial business model and key findings of this project. The customer segments are drawn from a mosque community representative and individuals. The key findings are derived from interview questions to Sultan Haji Ahmad Shah Mosque (SHAS Mosque) as a Program organizer and survey questions to Muslim community as participants. The question topics below have been answered by the committee of SHAS Mosque.

Interview Topic	Responses		
Organizing and Promoting programs	 Primary promotion methods include social media and direct promotion. Currently updates/changes communicated through WhatsApp groups for each programs. 		
Challenges in Community Engagement	 Limited engagement, with challenges including reaching maximum participants, students' lack of interest, and insufficient budget. 		
Encouraging Participation	 Benefits of participation are emphasized. Incentives offered include star points and refreshments. 		

Interview Topic	Responses		
Broader Event Reach and Visibility	 Methods include social media, direct promotion, and announcements through mosque speakers after prayers. Expressed a need for a platform to expand reach with minimal effort. 		
Tracking Attendance and Participation	 Attendance are tracked via pre-submitted Google Forms and confirmed with lists before programs. Desire to track feedback more effectively, as some participants avoid filling evaluations. 		
Desired Features in Centralized Platform	 Interest in a platform with attractive animations to draw participants. Preference for daily notifications to keep the community informed. 		

Fig. 12. Findings from Mosque Commitee

It is found that the mosque committee faced hardships in handling programs currently using multiple platforms such as social media, Google Forms and physical announcements at the mosque. Furthermore, the mosque committee expressed their support for this project, as it has potential as their alternative in providing a unified and trusted platform for all announcements and communications of programs managements.

As for participants, we distributed a few questionnaires through the WhatsApp platform, targeting a wide range of Muslim community. In total we received responses from 30 individuals ranging from 13 years old to 48 years old. To validate the problem discuss in this paper, we included inquiries in our survey beginning with asking our respondents to choose multiple options on how they usually find out about programs going on around them and the majority of the respondents (29)

individuals) choose social media platform and another majority of the respondents (19 individuals) choose WhatsApp announcement, while as many as (13 individuals) find out about Islamic programs only via each physical advertisement and word of mouth indicating the existence of scattered and fragmentation of the programs promotion among the community (See Fig. 13). Additionally we also ask the respondents challenges that they face in order to try to find information about Islamic programs in their area and more than half of the respondents (16 individuals) express that they hear about programs too late to attend while (14 individuals) even voice out their opinion on how they don't even know where to look for programs announcements while (8 individuals) agree that there are no centralize platforms to manage these programs (See Fig. 14).

Next, as one of the main purposes of our project is to achieve SDG8, were trying to ask our respondent a few questions to explore whether the functionality provided by our platform will actually help to drive a progress for economic growth among the community. As seen in the chart (See Fig. 15), (9 individuals) from the respondents willingly to pay amount of fee while the other (19 individuals) are willing to pay depending on the price, indicating that (28 individuals) are willing to pay and agree to spend their money on the programs as long as it is a reasonable price. Moreover, to see whether this platform will encourage and foster everyone to gain easy income through the features we will provide, we asked the respondent about their interest in getting paid for their very own program (See Fig. 16). Half of the respondents are very interested while the other half are somewhat interested in indicating that everyone is interested in utilizing this platform to generate their own easy income.

Additionally, we also give inquiries on the respondent's preference of this platform to gather and meet their needs. (See Fig. 17) Based on this question, most of the respondents (21 individuals) agreed that timing that fits the schedule is a significant factor to attend the program in which this also explain on why the majority answer (22 individuals) on question (See Fig. 18) choose features they would find the most useful for this platform would be programs calendar with detailed information. In another question (See Fig. 19) on what would encourage the respondent to use this platform, the majority (21 individuals) express that they love a user-friendly interface with easy navigation for programs findings and registering while another majority (18 individuals) express that they love the ability to receive timely notification about programs updates and reminders. In which this explain on why the second majority (18 individuals) answer of feature most useful (See Fig.18) is programs reminders and notification. In this question also, almost half of the respondent agree it is very useful to have livestream or recording of programs. All of this explains the majority answer for (See Fig. 20) the features they think are the most important for programs management with (18 individuals) choosing both a user-friendly interface and access to programs materials like videos, recordings and notes. While another (17 individuals) wants a detailed programs calendar with all necessary information and another (16 individuals) love to receive real-time notification for programs updates, changes or cancellations.

3. How do you usually find out about Islamic programs? 30 responses





6. What challenges do you face when trying to find information about Islamic programs in your area?





11. Would you be willing to pay a small amout of fee for (saved recorded event, exclusive content, early access to events ticketing booking)?30 responses



Fig. 15. Findings from participants on the willingness to pay

12. How interested are you in promoting your own programs through this app while getting paid? (Example: Your own Quran class teaching, ...r own usrah gathering, your own halaqah murajaah) ^{30 responses}



12. How interested are you in promoting your own events through this app while getting paid? (Example: Your own Quran class teaching, ...r own usrah gathering, your own halaqah murajaah) 30 responses



Fig. 16. Findings from participants on the interest to generate their own income by creating their own program

7. What is the most significant factor influencing your decision to attend an Islamic program? ^{30 responses}



Fig. 17. Findings from participants on factor influencing attending Islamic programs

8. Which features would you find most useful in an Islamic programs app? 30 responses



Fig. 18. Findings from participants on most useful features in Islamic program platform



Fig. 19. Findings from participants on factors encourage them to use application in managing Islamic program registration

13. In your opinion, what features would be most important in an Islamic program management app?





7. VALIDATED BUSINESS MODEL – USING BMC FRAMEWORK

VALIDATED BUSINESS MODEL CANIVAS, OAL BOONNECT

7.1. Validated IT/Digital Project BM

Key Partners • Government organizations • Malaysia Digital Economy Corporation (MDEC) • Jabatan Kemajuan Islam Malaysia (JAKIM) Key Resources • Skilled technical and marketing team • Customer support infrastructure • Marketing and promotion and management. • Marketing and promotion • Marketing and promotion • Marketing and promotion • Marketing and promotion • Payment gateway for • Payment gateway for • Community building • Event data analytics tool: • User experience design • Payment processing systet • Notwork of event organiza and participants • Clud storage and computing services	Unified as system Easy onlin creation, j ticketing Friendly a real-time Secure de Support fr virtual and events	e program promotion and nd automated analytics ita handling	Customer Relationships • Personalized recommendations • Automated timely program notifications Event calendars detailed information list • Live stream and recording • User-friendly interface • Customer support • Community forums for event organizers and participants • Regular feedback and survey collection	Customer Segments
Cost Structure • Software development costs • Marketing and advertising expenses • Customer support • Legal and compliance fees • Partnership and Collaboration Cost		 Commissi Ticket fee Sponsorsi Payment providential 	as a Service(SaaS) subscriptio ion fees from event registrations	ons

Fig. 21. Validated QalbConnect Business Model Canvas (BMC)

This section provides an overview of the validated project Business Model (BM) for QalbConnect digital platform/app using BMC framework. The BMC is a strategic tool for outlining critical aspects of the project's business model, such as the value proposition, customer segment, revenue streams, and other key components (Maria et al., 2023). Exploring each of the BMC's nine blocks provides us with a better understanding of how QalbConnect operates and delivers value.

Firstly, the platform serves two distinct customer segments which is program organizers, which include individuals or organizations such as government bodies, universities, industries, mosque and NGOs, as well as participants who attend these programs. Organizers use the platform to promote and manage their programs, and participants use it to find and attend programs of interest.

The value propositions then emphasize the platform's main objective to foster economic growth of program organizer from individual and organization by providing a user-friendly feature. It offers a unified and trusted system that combines easy and convenient online program creation, promotion, and ticketing. It offers friendly and automated real-time analytics, secure data handling, and support for hybrid, virtual, and in-person programs.

In terms of channels, the platform primarily relies on a mobile application to give participants easy access to its features and physical channels like Network-Mosque (Dahlan et al., 2016; Saleh et al., 2013). The platform also utilizes website to ease the operation of programs management and insight catering to program organizer from organization such as government, university, industry and NGO. It also uses social media to promote programs and establish an online community as they are the most effective way to reach participants because they usually depend on social media daily.

Moreover, customer relationships are built through personalized program recommendations and automated timely program notifications to address key concerns such as late information and dispersed programs sources. QalbConnect also provides programs calendars detailed information list allowing participants to keep track of any on-going or upcoming program that fits their personal time to participate. This platform also offers a built-in live streaming and recording program to enhance the participant's participation and break the demographic constraints. It also provides a user-friendly interface, which is respondents top priority. The platform also fosters community engagement by offering community forums where participants can interact. Regular feedback and survey collection helps participants experience and ensure the platform remains aligned with community needs.

Moving on, the platform generates revenue through several streams through Software as a Service (SaaS) subscription, where organizers pay for advanced programs management tools. Additional revenue comes from commission fees from programs registration, ticket fees, sponsorship, payment processing charges, and premium service fees for access to exclusive materials such as notes and recordings of all programs. Partnerships with Islamic organizations also provide sponsorship opportunities. The payment must be affordable because the participants are willing to pay if the prices are reasonable.

In addition, the platform relies on several key resources to effectively deliver its services. These include skilled software developers to maintain the platform remain function and stay updated. Skilled technical and marketing teams focus on outreach and promotions to address challenges such as late programs notifications and scattered information. Customer support infrastructure helps assist participants. Mobile application allowing an easy participations and interaction between users and digital platform/app. Event data analytics tools add value by giving organizers insights into participants behavior and user experience design helps to design a user-friendly interface for all customer segments and enhance their experience using this digital platform/app. Network of programs organizers and participants to foster a connected community and allowing any possible collaboration between all customer segments.

Next, the platform focuses on key activity centers that address both organizers and participants' needs. This includes facilitating program promotion and management, which assists organizers in planning, promoting and managing programs efficiently, which was highlighted as a key challenge for organizers. Marketing and promotion have become essential for increasing programs visibility as participants use social media as their primary source for programs searching. Data analysis and reporting help organizers understand engagement and attendance, while customer support and community-building activities promote a sense of belonging. Payment gateways facilitate secure and seamless transactions for programs registration fees.

Moreover, the platform's success is dependent on strong key partners. The platform works with MDEC (Malaysia Digital Economy Corporation) on digital resources and technical support. Other potential partners include Jabatan Kemajuan Islam Malaysia (JAKIM), which is responsible for approving Islamic programs in Malaysia and ensuring compliant to religious guidelines.

Finally, for the cost structure, expenses include software development costs, such as platform maintenance and feature updates, along with marketing and

advertising expenses to reach a broader audience. Other significant costs involve customer support, legal and compliance fees, and investment in partnership and collaboration initiatives as well as cloud storage and computing services.

7.2. Business Environmental Map (EM)

The EM provides an overview of the external factors influencing the development and operation of the QalbConnect business model. It evaluates different aspects of the business environment, including social, technological, economic, legal, regulatory and environmental factors (Mahesh et al., 2020) (See Table 1).

Social Factors The platform addresses the growing demand for digital solutions that meet both technological and cultural requirements. QalbConnect supports community engagements by connecting participants and program organizers in a Shariah-compliant manner.	Technological Factors The advancements in technology make the QalbConnect platform efficient and user- friendly. Cloud-based services, real-time data analytics, and mobile apps play a vital role in streamlining and improving user interaction during the streamlining online platform (Salleh et al, 2023). This platform integrates these technologies while integrating the Shariah- compliant tools.		
Economic Factors	Legal and Regulatory Factors		
QalbConnect provides a cost-effective	Collaboration with JAKIM to ensure all		
solution for programs organizers, both	programs comply with Shariah law and it is		
individuals and large institutions. By providing	important to comply with Malaysian Law		
affordable pricing structure and simplifying	regrading delivery of religious lecturers. To		
the programs management, the platform	ensure legal compliance while using the		
helps organizations reduce costs while	platform, only certified individuals can lead or		
increasing participation. This is aligned with	give talks to the religious programs, under the		
the government initiatives to help smaller	Syariah Criminal Offences (Federal		
organizations access affordable digital tools	Territories) Act 1997 (AKJSWP), Section 11		
and technologies (Economic Planning Unit,	(Ibrahim et al, 2022). This is to build trust		
2021).	among organizers and participants.		

Table 1: Business environmental map for QalbConnect

Environmental Factors

QalbConnect is influenced with Islamic ethical standards, which ensure all interaction and programs management practices follow Islamic principles. This emphasis on ethical compliance not only addresses legal and religious standards but also strengthens the platform's credibility and trust within the Islamic community.

7.3. Strategy Canvas (SC)

(a) Before & after QalbConnect implementation

Factor/Issue	Before implementation	After implementation	Explanation
Program Fragmented and siloed with possible of island of automation		Unified and centralize platform with comprehensive listings including filter for speakers, topics and venues	Centralize program information allowing participants to easily discover and find relevant programs
Program accessibility	Limited access for participants specifically for remote areas	Built-in live streaming for remote participation	Expand access and reach wider audience for participants
Trust and credibility	Hesitation among participants about the reliability of scattered program information	A trusted and verified platform consolidating all Islamic program with credential and licensing from religious authority	Build confidence of participants with the program promotion from reliable and verified organizers
Economic opportunities	Few opportunities for Muslims to generate any easy income from religious activities	Program organizers and participants both can create their own program/class engaging in Islamic entrepreneurship	Fostering and encouraging the Muslims to generate income
Program organizer support	Limited structured avenues for earning from Islamic program organization	Tools for organizers for monetization from ticketing, advertisements and sponsors as well as analytics analysis to gain insight for future programs	Provide supports for program organizers to generate income making Islamic programs more sustainable
Youth engagement	Limited structured engagement for participation	More accessible opportunities for youth to participate	Opportunities for youth to participate, learn and grow through entrepreneurial program works.
Community engagement	Lack of interactive platforms	Open discussion space and feedback systems	Encourage users to engage, fostering a connected Muslim community

(b) QalbConnect vs Eventbrite vs Cvent vs Bizzabo

Key Factors	QalbConnect	Eventbrite	Cvent	Bizzabo
Program discovery discovery discovery discovery for Islamic program with tailored filter of speaker, venue and topics		All type of programs generally form casual to large- scale	Corporate and professional programs and meetings	Business programs and professional networking gathering
Program promotion	Simplified promotion tools for individual or small Muslim entrepreneur ease	Basic promotion tools provided mainly for casual organizers	Sturdy marketing tools specially to cater to professional organizers	Advance marketing tools focusing on enterprise wise
Program accessibility	Provide a built-in streaming for remote participation in live streaming recording	Limited streaming option relying from the external integrations	Integrate some visual capabilities but primarily focus on physical program	Robust hybrid program supporting large- scale and corporate programs
Trust and Credibility	Verified and trusted Islamic content with credential and licensing from religious authority	General trust system with no verification caters for any specific community	Professional reliability but lack for verification for any specific community	General trust system specifically made for professional clients
Customization	Personalized recommendations for individuals based on speakers, topics, venue and Islamic program types.	Limited personalization with its general recommendation based on category or location	High customization specifically for corporate and professional requirements and branding	Customization provided for corporate programs
Organizers income opportunities	Tools for monetizing via ticketing, sponsorships and ads	Tools for monetization limited to ticketing	Revenue generation mainly focusing on cost management	Revenue generation via professional program management
Cost effectiveness	Affordable for small organizers and individuals as well as a large-scale organizer	Affordable for casual organizers but less features offered	Expensive and inaccessible for small-scale program organizers	High-cost suitable for enterprise organizer
Community engagement Discussion spaces provided as well as am interactive feature for all customers segments		No community engagement tools available	No community driven engagement tools as focus are shifted to logistics	Networking features available but specifically tailored to professional needs

Table 3: Comparison of QalbConnect vs other platforms

7.4. High Fidelity/mock-up prototype apps

QalbConnect app uses JavaScript frameworks like Flutter (which uses Dart as its computer language) as it is ideal for developing a cross-platform mobile application with interactive user interface. Furthermore, it offers flexibility and allows rapid development by using a single framework which reduces the likelihood of errors during developing the application process. Internet of Things (IoT) would be integrated to enable real-time notifications like reminders of nearby programs, and track attendance when participants arrive at the program's venues. Additionally, Big Data Analytics (BDA) will be utilized to analyze the participant attendance patterns which will provide insights of participation trends for future programs planning.



Fig. 22. Login Credentials and Homepage



Fig. 23. Programs Listing

9:41 a	1 † -	9:41	4 ♥ ■ 9:41	■ ♦ hi.		
Create Event	٩	Create Event	۰ (Create Event Q		
Basic Invitee Checklist Budget	Invites	Basic <u>Invitee</u> Checklist Budget	Invites Basic	Invitee Checklist Budget Invites		
Event Name		Existing Invitee Lists	Invite	se List Name		
	_	Islamic Scholars				
invite only	\sim	Influencers	Sear	ch contact(Name, mobile, email)		
Event Date	8	VIP Attendees	Added			
	0	Mosque Committee		Ustaz Sharil Mobile: 425-706-9040		
Location		Add New List		Ustazah Hafizah Email: abc.dfg@gmail.com		
Start Time	0			Nazhan Amir		
End Time	0	Next		Mobile: 425-706-9040		
End time	0			Syazwan Ricky Mobile: 425-706-9040		
Event Occasion	\sim		All con	tacts		
Upload Media	_	0 7 \Lambda 🛇	~	Aisyah Hanisah Mobile: 425-706-9040		
Photo Video		Hame Bookings Volunteer	My Events	Nur Auni Mobile: 425-706-9040		
Next			6	Zulkarnain Zulkifii Mobile: 425-706-9040		
Home Bookings	My Events			Add List		
) Home	Dookings Volunteer My Events		

Fig. 24. Create Programs Features



Fig. 25. Create Programs Features



Fig. 26. Published Programs and Volunteering in Programs Feature

8. CONCLUSION AND FUTURE WORKS

In summary, QalbConnect seeks to address several key challenges including fragmented and siloed programs promotion. This digital project aims to establish a unified platform that simplifies programs discovery and promotion, offers live streaming for remote audiences, and encourage Muslim community to become entrepreneurs with our platform providing organizers with tools to generate easy income. Based on survey findings, the primary pain points identified by audiences include fragmented programs promotion. In response, this project delivers solutions such as unified verified programs listings, expanded access, and monetization tools for organizers. Key differentiators of this project include a user-friendly interface with filters for Islamic programs, live streaming capabilities, personalized programs

recommendations, easy tools for programs creation, affordable cost, and community engagement programs including Islamic entrepreneurship for youth.

Future work includes creating a detailed project management plan for the development of QalbConnect platform that covers timelines, resource allocation, and risk management. Additionally, the platform will be enhanced with more features and integrated with other systems to improve its functionality. To ensure continuous improvement, feedback will be collected regularly from program organizers, mosques and participants to evolve the platform and serve the community better.

REFERENCES

- Aggarwal, V., & Ansari, N. (2014). Emerging trends: apps in event management. ACM. https://doi.org/10.1145/2593761.2593767
- Altawil, A. (2022). Digitalizing religion in the age of covid-19. https://surface.syr.edu/cgi/viewcontent.cgi?article=2606&context=etd

Bhanot, L., Shyam, R., Khan, M., & Ali, E. S. (2024). EVENTO: AN ANDROID APP FOR EVENT PLANNERS. International Research Journal of Modernization in Engineering Technology and Science. <u>https://doi.org/10.56726/irjmets53489</u>

- CanvasBusinessModel. (n.d.). CVENT: Business Model Canvas. CBM. https://canvasbusinessmodel.com/products/cvent-business-model-canvas
- Cheng Y, Sharma S, Sharma P, Kulathunga K. Role of Personalization in Continuous Use Intention of Mobile News Apps in India: Extending the UTAUT2 Model. *Information*. 2020; 11(1):33. <u>https://doi.org/10.3390/info11010033</u>
- Connie Loizos. (2015). In Move Sure to Boost Revenue, Eventbrite Moves Past Ticketing Into Event Spaces. Available: <u>https://techcrunch.com/2015/10/14/to-bolster-revenue-</u> eventbrite-moves-past-ticketing-and-into-event-spaces/
- Dahlan, A.R.A., Osman, R.A.H., Ibrahim, J., Othman, M.Z. (2016). eHalal4All Program— Promoting Halal Rural Products and Services Globally by Harnessing the Networkof-Mosques (NoM) Capabilities. In: Ab. Manan, S., Abd Rahman, F., Sahri, M. (eds) Contemporary Issues and Development in the Global Halal Industry. Springer, Singapore. https://doi.org/10.1007/978-981-10-1452-9_31
- Economic Planning Unit. (2021). Malaysia digital economy blueprint. Prime Minister's Department. <u>https://www.ekonomi.gov.my/sites/default/files/2021-02/malaysia-digital-economy-blueprint.pdf</u>
- Eventbrite Business Model Exemplar | Business Model Zoo. (2021, April 14). Business Model Zoo. <u>https://www.businessmodelzoo.com/exemplars/eventbrite/</u>
- Evolvi, G. (2021). Religion and the internet: Digital Religion, (hyper)mediated spaces, and materiality - zeitschrift für religion, Gesellschaft und Politik. https://link.springer.com/article/10.1007/s41682-021-00087-9
- Grua, E. M., De Sanctis, M., Malavolta, I., Hoogendoorn, M., & Lago, P. (2022). An evaluation of the effectiveness of personalization and self-adaptation for e-Health apps. *Information and Software Technology*, *146*, 106841. <u>https://doi.org/10.1016/j.infsof.2022.106841</u>
- Guan, Y., Vasquez, J., Guerrero, J., Samovich, N., Vanya, S., Oravec, V., García-Castro, R., Serena, F., Poveda-Villalón, M., Radojicic, C., Heinz, C., Grimm, C., Tryferidis, A., Tzovaras, D., Dickerson, K., Paralic, M., Skokan, M., & Sabol, T. (2017). An open virtual neighbourhood network to connect IoT infrastructures and smart objects Vicinity: IoT enables interoperability as a service. 2017 Global Internet of Things Summit (GIoTS), 1-6. https://doi.org/10.1109/giots.2017.8016233.
- Gulzar, M. A., Ahmad, M. & Hassan, M. & Rasheed, M. I. (2022). How Social Media Use Is Related To Student Engagement and Creativity: Investigating Through The Lens of Intrinsic Motivation: <u>https://www.tandfonline.com/doi/epdf/10.1080/0144929X.2021.1917660?needAcce</u> <u>ss=true</u>
- Hafied Cangara, Safiyyah Sabreen, Syamsuddin AB, & Sadhriany Pertiwi Saleh (2022). Digital da'wah transformation: Cultural and methodological change of Islamic communication in the current Digital Age.

https://www.semanticscholar.org/reader/ebf7b7183c9bcfdc33e3388dc4463bffa8aac 114

- Heilweil, R. (2020). Religious leaders are becoming content creators to keep their followers engaged. Vox. <u>https://www.vox.com/recode/2020/9/18/21443661/religion-logging-off-onlineengagement-content-creators.</u>
- Hubbard, B. & Walsh, D. (2020). The Hajj Pilgrimage Is Canceled, and Grief Rocks the Muslim World. The New York Times. <u>https://www.nytimes.com/2020/06/23/world/middleeast/hajj-pilgrimage-</u> canceled.html.
- Ibrahim, N., & Samudin, S. A. (2022). Cabaran Penguatkuasaan undang-undang Bagi Kesalahan jenayah syariah mengajar agama tanpa tauliah di Alam Siber: Kajian di bahagian Penguatkuasaan Undang-Undang jabatan agama Islam Wilayah Persekutuan: Challenges in enforcement of Shariah criminal offence relating to offence of teaching Islam without credentials in cyberspace: A study in law enforcement division department of federal territory islamic affairs. Retrieved from https://ejournal.um.edu.my/index.php/JSLR/article/view/40860

Jones, M. (2022). Cvent | Track Participation.

- Kulshreshtha, S. K., Akoijam, S. S., Kumar, P., & Shukla, U. N. (2024). Event-Enabled Mobile Applications. <u>https://doi.org/10.4018/979-8-3693-2272-7.ch004</u>
- Larsson, G., & Willander, E. (2024). Muslims and social media: A scoping review. Information Communication & Society, 1–15. https://doi.org/10.1080/1369118x.2024.2379835
- Lekgau, R. J., & Tichaawa, T. M. (2022). Exploring the use of virtual and hybrid events for MICE sector resilience: the case of South Africa. DOAJ (DOAJ: Directory of Open Access Journals). <u>https://doi.org/10.46222/ajhtl.19770720.310</u>
- Mahesh, Ravindra, Bendre., Prem, Bhagwan, Acharya. (2020). Analysis of Interrelation Between Business and Environment. 68(25):423-431.
- Man, M. M. K., & Yang, L. R. (2021). The future prospect of digital marketing in the Malaysian context. International Business Research, 15(1), 72. <u>https://doi.org/10.5539/ibr.v15n1p72</u>
- McClure, P. K. (2017). Tinkering with technology and religion in the digital age: The effects of internet use on religious belief, behavior, and belonging. Journal for the Scientific Study of Religion, 56(3), 481-497. <u>https://www.jstor.org/stable/26651880</u>
- Mishra, S. K., & Tripathi, T. (2020). One year update on the COVID-19 pandemic: Where are we now? <u>https://www.sciencedirect.com/science/article/pii/S0001706X20316910</u>
- Mohamad, S., Lehner, O. M., & Khorshid, A. (2015). A case for an Islamic social impact bond. SSRN Electronic Journal. <u>https://doi.org/10.2139/ssrn.2702507</u>
- Mohamed, S. R. (2022). Technological Innovation in Tourism and Events industry: A hybrid future of Events. *Deleted Journal*, 2(3), 0. <u>https://doi.org/10.21608/ijtah.2023.185020.1027</u>
- National Fourth Industrial Revolution (4ir) Policy (2021). <u>https://www.mydigital.gov.my/wp-</u> content/uploads/2023/08/The-National-Fourth-Industrial-Revolution-Policy_ENG.pdf
- Omar, A. S. & Kennedy o, O. (2024). The Impact of Social Media on Society: A Systematic Literature https://www.researchgate.net/publication/381800701_The_Impact_of_Social_Media

- Osterwalder, A., & Pigneur, Y. (2010). Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. Wiley
- Osterwalder, A., Pigneur, Y., Bernarda, G., Smith, A. (2014). Value Proposition Design: How to Create Products and Services Customers Want. John Wiley & Sons.
- Parab, A. (2024). EventPro application for events. International Journal for Research in Applied Science and Engineering Technology, 12(4), 4837–4842. https://doi.org/10.22214/ijraset.2024.61124
- Rismayanti, T. R., & Rahman, T. (2021). TAKHRIJ AND SYARAH HADITH OF CHEMICAL: THE RELATIONSHIP BETWEEN CHEMICAL BONDS AND BROTHERHOOD BONDS IN ISLAM. Web of Scientist: International Scientific Research Journal, 2(05), 87–93. <u>https://doi.org/10.17605/osf.io/fqxmh</u>
- Rouet, Gilles. "Book Review-Dominique Wolton, Vive L'incommunication. La Victoire De l'Europe." (Eastern Journal Of European Studies 11, No.1 (2020): 358-362)
- Saleh, B., Ma-Key, N., Dahlan, A. R. A., Osman, R. A. H. (2013). MyMukim2Cloud Collaborative System: A Mosque Collaborative Network for Serving the Societal Needs in Malaysia. IEEE, 5th International Conference on Information and Communication Technology for the Muslim World 2013.
- Saleh, S.M. (2012). What is the Islamic Society? <u>https://doi.org/10.1163/2352-0272 emho dum 021531</u>
- Salleh, N. M., Stegmann, H., Ow, Y. S., Charanya, T., Segaran, R., & Wei , A. C. (2023). Malaysia Digital Economy Corporation. <u>https://mdec.my/</u>
- Sheikh Muhamad Hizam Sheikh Khairudin. (2021). The role of information technology on the Muslim community in the era of globalization and Digitalization. <u>https://islamicmarkets.com/publications/the-role-of-information-technology-on-the-muslim-community-in</u>
- Skrodzki, M. & Damrau, M. (2022). Benefits of Online Meetings for the MathRt Community: Experiences from Two Events: <u>https://www.tandfonline.com/doi/epdf/10.1080/17513472.2022.2079941?needAcces</u> <u>s=true</u>
- Tomio Geron . (2011). Names You Need to Know: Eventbrite. Available: <u>http://www.forbes.com/sites/tomiogeron/2011/05/02/names-you-need-to-know-</u> <u>eventbrite/#4ad8ccd77961</u>
- Waldman, M., & Zax, O. (2015). An exploration of the promotion signaling distortion. *The Journal of Law Economics and Organization*, *32*(1), 119–149. https://doi.org/10.1093/jleo/ewv016
- Werner, K., Junek, O., & Wang, C. (2021). Event Management Skills in the Post-covid-19 World: Insights from China, Germany, and Australia. *Event Management*, 26(4), 867– 882. <u>https://doi.org/10.3727/152599521x16288665119558</u>
- Yaqin, M. A. (2022). Aplikasi Go-Qur'an Berbasis Web dan Android. 5 TRILOGI Jurnal Ilmu Teknologi Kesehatan Dan Humaniora, 3(1), 18–21. <u>https://doi.org/10.33650/trilogi.v3i1.3644</u>