

# Fitalert Enhancing the Health, Wellness and Well-Being to the Community – A Conceptual Enchance Business Model

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**Abstract:** The paper reviews about the conceptual combination of fitness, community and lifestyle application named FitAlert, this app help eases the users in their fitness life and also be involve in the fitness community all around the country. In addition, this app provides an advertisement about fitness event in Malaysia, and also provide exercise tutor for users. This app also has other function such as giving the users a reward for completing the challenges given. The app also provides a platform that allow users to join and register for an advertised event such as running event, workout event, bicycle event and many more. Besides that, this app also has a website page for the users to review the event for more detail. In premium version, there will be an extra function and features for users to enjoy, for example, users can compete with other users in leaderboard, and collect more rewards. Lastly, the app is collaborating with a fitness event organizer for the in-app ads.

**Keywords:** business model canvas, value proposition canvas, Malaysia, fitness, conceptual.

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## I. INTRODUCTION

Fitness are a common word for us which means the condition of being physically fit and healthy. In Malaysia, the number of unfit people and overweight people keep increasing due to food factors which is rice. Rice carries a huge amount of carbohydrates which can cause overweight if someone does not practice the healthy lifestyle. Due to decreased physical activity and unhealthy eating habits many of Malaysian suffer from overweight and obesity which lead to growing health problem [1]. The percentage of Malaysian suffer from obesity

was 13.3 percent, while overweight Malaysian was at 38.5 percent [2]. There is also no specific medium for the Malaysian to get up to date with the current fitness event which make the fitness event enthusiast cannot join the program. Hiring a fitness trainer also cost a lot of pennies and not everyone have budget for it [3].

The purpose of this paper is explaining the development of a project called FitAlert which is targeted to reduce the number of overweight people across the country. FitAlert are the project that focus on helping those who are overweight, unfit and people who love join the fitness program around the Malaysia.

## II. PROBLEM STATEMENT

Fitness is very important and needed to be taken care of. This is because a good fitness level will lead to a good body health as well as emotions [4]. Sadly, most Malaysian did not realize about this matter. Health Minister of Malaysia, Datuk Seri Dr S. Subramaniam said that studies show most Malaysians only begin exercising between the age of 40 and 50 [5]. Clearly, that is not a right trend to be set for all Malaysians. Malaysians need to change to make sure Malaysia become a country that lived by healthy group of people. Before doing that, it is important to understand on the challenges faced by Malaysians to take care of their fitness and health.

One of the challenges for Malaysians that causes them not to exercising is having low self-esteem [6]. They are not having enough confidence as well as motivations to go exercising at the gym or at the park. This is mainly because they are embarrassed of their body conditions which lead them to just remain with their daily routines of not exercising.

Other than that, some Malaysians did not have enough information on which exercise that they need to practice [7]. They did not have a reachable platform where they can get an information related to fitness. On top of that, some of Malaysians also did not know the proper way to conduct an exercise. This is dangerous because a wrong way of conducting an exercise can lead to injuries.

Recently, Youth and Sports Minister of Malaysia, Khairy Jamaluddin had launched a fitness-based programme called FitMalaysia. The main objectives of this programme is to educate and create an awareness on health issues to all Malaysians [8]. From here, it is possible for us to come with an idea to create a web and mobile based Apps that helps people in term of fitness and health.

Therefore, we decided to start a project of making a fitness-oriented mobile application named FitAlert. This app will work as the source of information for people to exercise and take care of their fitness. FitAlert is featured with a complete graphical tutorial lesson on many types of exercises. Next, FitAlert also featured an event that related to fitness. People who are interested with those events can simply join them by using this app. On top of that, FitAlert also provided a challenges that can be participated by anyone who using this app. Upon a completion of the challenges, user will receive a reward such as free premium features and many more.

### III. METHODOLOGY

We are using Business Model Canvas (BMC) as the tools for our business planning. The Value Proposition Design Canvas (VPC) is included in the BMC. BMC is used to help us describe how the organization creates, delivers and captures a value. Along with that, VPC help us to recognize the point of view of the customers. From there, we can analyze the step that need to be done to ensure good value to the customer.

Other than that, we are using Strategy Canvas as our method. A strategy canvas is a line graph that plots functions/ factors against importance for company or an organization and then overlays competitor's benchmarks. This way, information can be built to help formulate a competitive strategy [9].

#### A. Four lenses of innovations:

- Challenging Orthodoxies – Since the product is a software, it can be update by following the latest mega trend of fitness and wellness.
- Harnessing Discontinuities – In the future the cost of personal trainer is decrease.
- Leveraging Competencies and Strategic Assets – enhance fitness skill.
- Understanding Unarticulated - User do not know the information related to fitness.

### IV. LITERATURE REVIEW

#### 1. *Healthy Lifestyle Globally and in Malaysia*

People have a choice on how to live their life. Healthy lifestyle is among the choices that can be picked. Being a healthy person provide a numbers of benefits and goodness [10]. Euromonitor International's Global Consumer Trends Survey of 2015 found that for global mid-lifers, good health is the top contributor to personal happiness, with 86% of respondents placing it in the top three, followed by supportive family relationships (78%) [11]. Therefore, it is seen that mid-life is the time where health issues is stopped from being taken lightly. It had become a global trend as in 2015. Healthy lifestyle habits are also becoming the normal way of lifestyle. People now are more aware on obesity, food sensitivity and disease [12].

As in Malaysia, the situation is differing from the majority in the world. Many young Malaysians are not healthy because of their lifestyle [13]. The number of patients aged between 18 to 40 years old in hospitals have doubled in the past four years. According to the National Health of Morbidity Survey 2015, more than one million (9.2%) of those in the age group have diabetes, 1.7 million (14.7%) with hypertension and 14% of them are obese. In addition, Youth and Sports Minister Khairy Jamaluddin said Malaysians in general have not yet practice a healthy lifestyle. Only 40% of Malaysians adopted a healthy lifestyle by making sports as a culture [14]. Therefore, from here we can see that Malaysians do need a changes in term of health issues and healthy lifestyle

## 2. Benchmarking

RunKeeper is a smartphone application that had been selected to become one of the benchmark for our project. It is selected as a benchmark because RunKeeper is a fitness-oriented mobile app that is different from any other fitness app. RunKeeper approaches the user in a rewarding and motivational way. It allows a user to set goals, track their exercise progress and personalized the routines. On the other hand, RunKeeper is user-friendly. It is suitable to be used for any type of people ranging from beginners to a professional athlete [15]. With this features, the range of users can be expanded.

Next, another app that we choose as our benchmark is Home Workout by Leap Fitness Group. In the Google rankings, they appear in the top 100 in more than 10 countries with over 10 million users [16]. The speciality that found in this app is a clear tutoring on exercise method. Users can learn from scratch on how to conduct an exercise. This app also providing a level on the difficulties of the exercise routine such as beginner, intermediate and professional. This way, users can select the best exercise routine that is suitable for their respective level of fitness. Another features that become our benchmark is the app does not require any equipment or tools to conduct an exercise. Therefore, users can conduct an exercise without having to trouble themselves to buy any fitness equipment.

## 3. Megatrend and Industry 4.0(IR 4.0) in Malaysia

Megatrends are the great forces in societal development that will very likely affect the future in all areas the next 10 to 15 years. Many companies and organizations use megatrends in their strategic work. One of the reason is because of the commercialization [17]. Megatrends is one of important matters that can ensure a good development of business.

In Mega Trend Matrix of Malaysia 2025, Health, Wellness and Well-being is one of the category that give a high degree of impact on Malaysian Economy [18]. Therefore, it is likely to be accepted that people in Malaysia will potentially have more interest in health and wellness.

Another Megatrend that is highlighted in Malaysia to 2025 is Connectivity [18]. It is recorded that internet user population in Malaysia had growth by 80% until year 2017. In other words, Internet users in Malaysia up from 2.5mil in 2006 to 24.5mil in 2017 [19]. That is a very huge number of increase. Therefore, this would be a right approach to promote healthy development through a mobile application.

On top of that, our platform also will be alongside with Industry 4.0(IR 4.0). IR 4.0 what has been called the “smart factory,” in which cyber-physical systems monitor the physical processes of the factory and make decentralized decisions. The physical systems become Internet of Things, communicating and cooperating both with each other and with humans in real time via the wireless web [20]. This way, users can experience fitness in a way of more advanced and professional service. As for an in-app features, user can interact with each other via the community platform available in the application.

## 4. Market Demand

Fitness relation application had experienced an increase of demand. In Malaysia, revenue in the fitness segment amounts to US\$37mil in 2018. The revenue is expected to show an annual growth rate (CAGR 2018-2022) of 10.5% resulting in a market volume of US\$55m in 2022 [21]. From here, we can conclude that there will be an available slot in the market for a fitness application especially in Malaysia. In addition, the demand of the fitness application in Malaysia is increasing due to the Megatrend in Malaysia which is Health and Wellness. Therefore, it is acceptable that a fitness mobile app will have a huge amount of market demand in Malaysia.

## V. ENVIRONMENT MAP

### 1. Key trends

Smartphone devices have many apps in their market and it not surprising that smartphone have becoming a target device to provide more convenient and in user daily life. Apps have become the most popular technological tool which people use to achieve a fit lifestyle. According to Chang, Qing, Holroyd and K. Seng, “It was shown that although the biggest group of apps was medical information reference apps that were delivered from or related to medical articles, websites, or journals, mobile users disproportionately favoured tracking tools. It was clear that m-health apps still had plenty of room to grow to take full advantage of unique mobile platform features and truly fulfil their potential” [22]. It a new trend to have fitness app installed in smartphone, to remind them through reminder to start exercise or workout. For example, on 5pm, every day the app will remind the user to start the exercise through notification in their own smartphone

## 2. Market Forces

In this market study, analysts have estimated eminent factors, such as the decreasing cost of mobile apps, to spur market growth during the forecast period. Advanced mobile apps with featured enhancements carry a premium price. However, the cost of such apps is likely to decline with its growing demand, and this will increase its rate of installation among the price-sensitive users. Factors such as the dipping cost of paid mobile apps and an increasing number of free apps are the key trends that will bring about growth in the global market for fitness apps during the estimated period [23].

## 3. Macroeconomic Forces

Nowadays, the fitness apps is growing rapidly although it was not that long ago that the technology was first introduced to the general public. The rising demand for fitness apps among woman is a critical factor that will impel the prospects for growth in this market. For example, woman used the fitness app to whether they are trying to lose weight, or they becoming more conscious about their health and fitness lifestyle. This indicates that fitness apps can easily accepted and can be one of the demand app in the society.

## 4. Industry Forces

Health is the most important factor in our life. Many a bunch of mobile applications for medicines and fitness categories in the marketplace known as health and fitness app industry because users have personally taken care of themselves with the use of this kind of app. Health and fitness app industry covered the market value by downloading a huge number of fitness app from Google Play Store and IOS App Store. The support from the doctors and encourage technology for reducing numbers of patients to visit clinic and hospital. So the future of having a fitness app in your pocket may never force you to visit the clinic or hospitals in case of a non-emergency problem.

## 5. Initial Business Model Canvas

KEY PARTNERS	KEY ACTIVITIES	VALUE PROPOSITIONS	CUSTOMER RELATIONSHIP	CUSTOMER SEGMENT
-Event organiser -Investor -Organisation -Established trainer	-Provide tutorial for the user with video presentation of professional trainer -Event organizer can advertise their event -User can set fitness challenge -Display leader boards for the challenge offered. -User can share their activities on the social media -User can register for the upcoming event	1. Individual (Overweight/Obesity/Starters) -They can study on how to exercise the correct way alone. -They can get more than hundred ways to exercise with premium 2. Individual (Fitness enthusiast) -They can register for the event easily -They can register without spend pennies for the event based on the leader boards achievement by subscribing premium. -They can get up to date to the latest trend 3. Group/Company -They can set up a group exercise with nearby people or their friend list 5. Event organiser -Can promote their event with free of charge advertisement -Make it easy for the participant to register 6. Less fortunate – They can be helped by the community	How we interact with the user -Social Media -Customer Service -Review -Rating and Feedback -Email  How we interact with event organiser -Meetings -Social Media -Review -Rating and feedback -Email  CHANNELS -Mobile apps for iOS -Mobile apps for android -Website -Network-of-mosque	1. Individual (Overweight/Obesity/Starters) -Those who have low-self esteem -Those who want to practice alone on how to exercise properly -Those who do not have budget to hire a personal trainer 2. Individual (Fitness enthusiast) -Those who love to join fitness event - Those who love to get up to date to latest fitness trends. 3. Group - Those who want to socialize while having group exercise. -Group of friends want to join a fitness event 4. Company - A company that wants their employees to adopt a healthy lifestyle by encouraging them to join fitness event 5. Event Organiser – Can Promote their event in the application 6. Less fortunate – In cooperation with mosque to run a charity run for the less fortunate
COST STRUCTURE -Fitness trainer -Marketing activities -Technology Infrastructure -Development of the system		REVENUE STREAMS -Freemium features from the User -Advertisement from the event organizer -Registered event from the participant of the event		

Fig 1: Business Model Canvas (BMC)

- Customer Segment - The Customer Segment block describes the types of relationships of this app to the individual, group and company. For individual it consists such as overweight, obesity, starters and fitness enthusiast.
- Value Proposition - The Value Proposition block describes the value of services that this app creates for customer segments. This includes:
  - Individual (overweight/obesity/starters) - They can study on how to exercise the correct way alone if for those who have low self-esteem and for those who do not have budget to hire personal trainer.
  - Individual (fitness enthusiast) - They can register the event they want to join easily. They can register the event without spent any money based on leader board achievement by subscribing premium.

- Group - They can set up a group exercise with nearby people or their friends.
- Company - Can have their employee take part in the fitness event and set up a group exercise easily.
- Event Organiser - Can promote their event with free of charge advertisement and make it easy for the participant to register to join their event.
- Key Partners - The Key Partnerships describes the partners that make this application run smoothly. The key partners are event organiser, investor, establish trainer and organisation.
- Key Activities - The Key Activities block is the most important things in this Business Model Canvas, it is explaining what the function of this app is. Firstly, it provides tutorial for the users with video presentation of professional trainer. Secondly, event organiser can advertise their event through this app. Thirdly, the users can set fitness challenge or their goal. Fourthly, user can share their activities on media social. Lastly, the users can register for upcoming event that their want to join.
- Key Activities - The Key Resources block is the important assets required to make this app run. It is the fitness event and the current technology for example, smartphone, tablet, laptop and personal computer.
- Customer Relationship - Customer Relationship block describes how we interact with the user and the event organiser.
  - The Users - We interact with the users through the social media, customer services, review, rating and feedback, and email.
  - Event Organiser - we interact with the event organiser through meeting, social media, review, rating and feedback, and email.
- Channel - The Channels block describes how this app communicates with the users. The users can communicate with this app through smartphone that used iOS or Android platform, website and also through Network-of-Mosque.
- Cost Structure - The Cost Structure block describes the cost that we have to take to implement this app. The cost structure is fitness trainer, marketing activities, technology of infrastructure and developing of the system.
- Revenue Streams - The Revenue Streams block describes where the income come from. The revenue streams are the freemium feature from the users, advertisement from the event organiser and registered event from the participant of the event.

## 6. Value Proposition Canvas

The value proposition canvas (VPC) which consists of value map and customer profile has been created. This canvas is created after systematic analysis of customer's needs and problem. Value proposition canvas helps to visualize the business plan and identify business risk early in the planning phase. Such models are useful to describe how the products and services create value to the customers.

USER

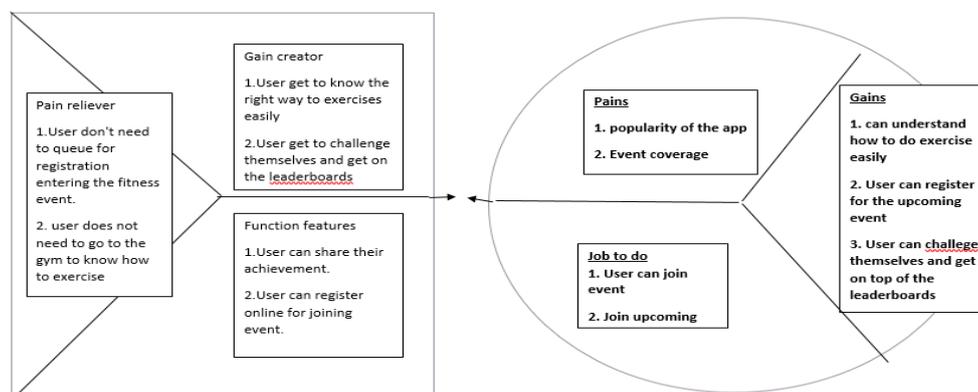
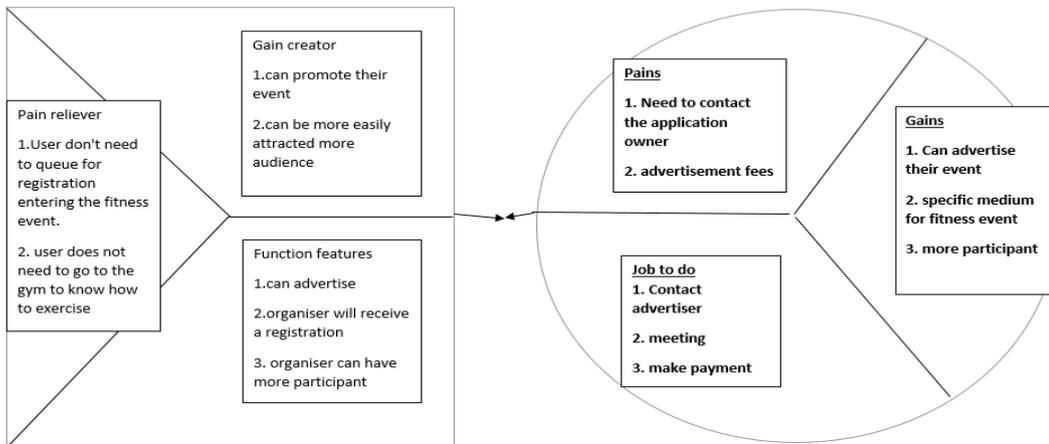


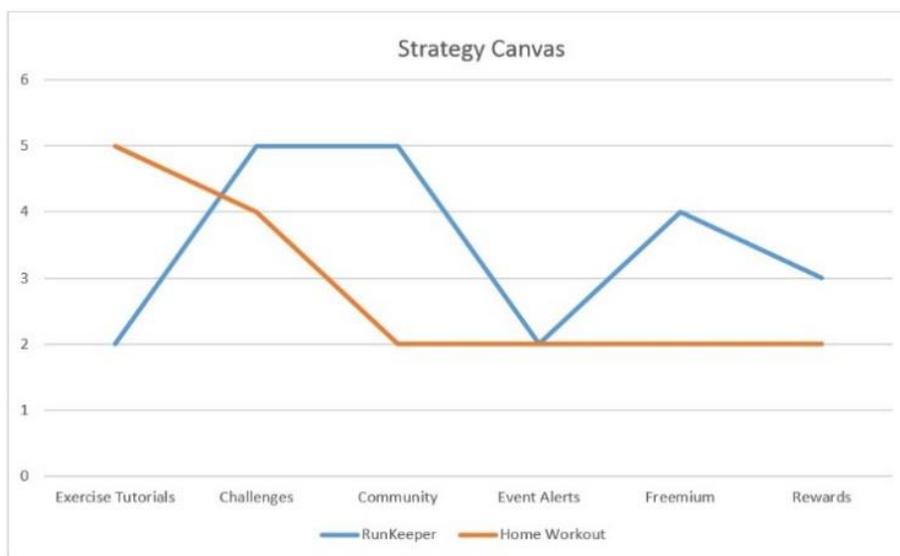
Fig 2: Initial Value Proposition Diagram for User

ORGANISER



**Fig 3: Initial Value Proposition Diagram for Organizer**

**VI. STRATEGY CANVAS**



**Fig 4: Strategy Canvas**

The two apps were compared in the Literature Review, on benchmarks. The comparison was made based on the factors of competition which are the exercise tutorials, challenges, community, event alerts, freemium and also rewards. From the strategy canvas, it is easier to see the factors than can be used in the FitAlert app.

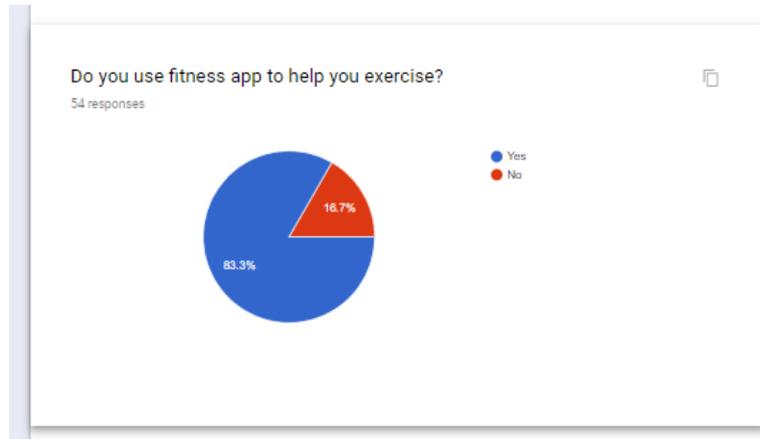
In FitAlert app, the exercise tutorials can be referred to Home Workout app because the completeness of the tutorials is more than RunKeeper. This is so because Home Workout app covered more range of exercise. For challenges, community and freemium, FitAlert will considered RunKeeper as source of reference. The reason of that is because for challenges, FitAlert will use the same idea as RunKeeper to make sure that users can experience a variety of challenges that available in the app. Next, FitAlert will also provide a platform for users to form a community. This way, users can interact and share their thought and ideas related to fitness. From there, the information shared will possibly benefits the community. Last but not least, FitAlert will also provide a freemium feature to ensure that the organization can generate a revenue. In the premium version of FitAlert, users can access more features and functionality. This is one of the good way to ensure the development of FitAlert.

In addition, FitAlert is channeled by Network of Mosque(NoM) for the users of the mosque. This way, the community of mosque as well as the needy can get a benefits. It could also widen the range of users

## VII. VALIDATION OF INITIAL BUSINESS MODEL

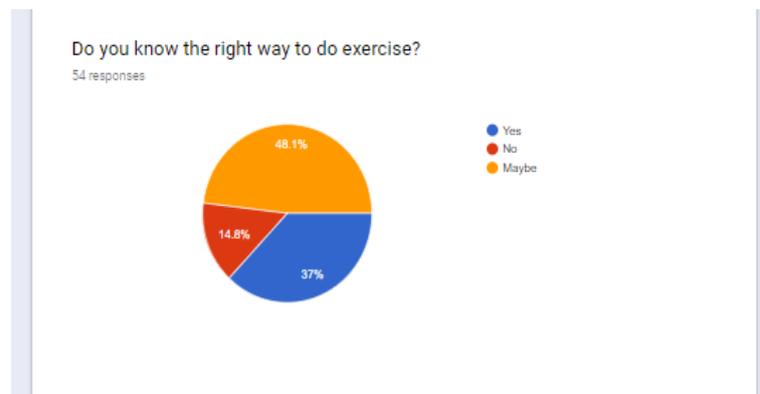
The questions of the survey are based on the idea of the potential user through interview carried on before the questions of the survey were distributed to the random customers. The chosen respondent were 54 respondents in total.

The following surveys were conducted to enhance the initial business plan. Based on the figure 5, 83.3 percent respondent responds that fitness app helps them in exercise while 16.7 answered not helping.



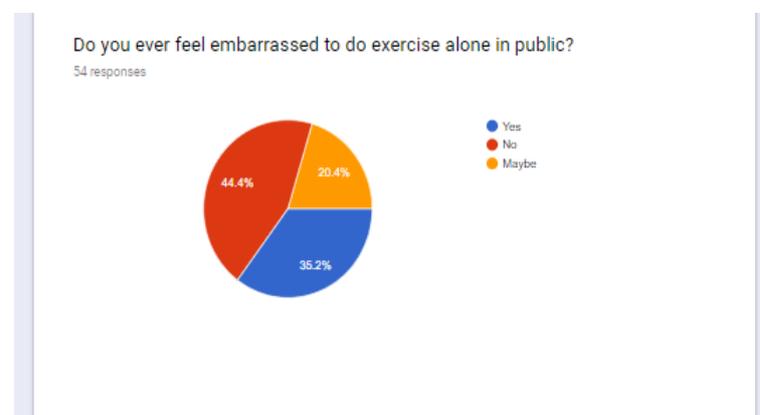
**Fig 5: Survey on people that use fitness app**

Figure 6 show that the majority with 48.1 percent not sure they know how to exercise the correct way or not.



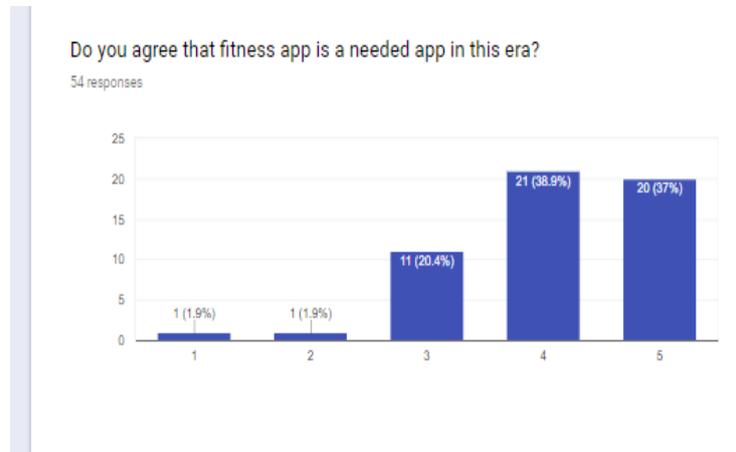
**Fig 6: Survey on people knowledge to exercise**

Figure 7 shows does people embarrassed exercising alone in the public. The question is based on the initial business model canvas which is people might have no confidence to exercise in front of other people



**Fig 7: Survey on confidence of people to exercise alone.**

Figure 8 shows the fitness application market demand in this era and most of the respondent answer 4 and 5 which is agree and strongly agree.



**Fig 8: Survey on market demand on fitness app**

### VIII. CONCEPTUAL SOLUTION ENHANCEMENT BUSINESS MODEL CANVAS

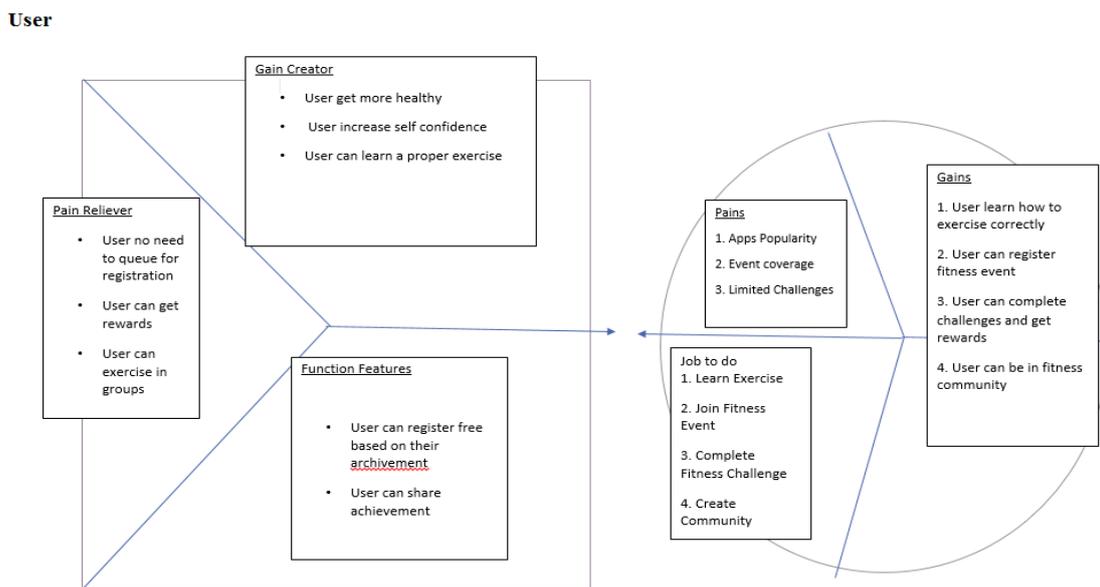
<b>KEY PARTNERS</b> <ul style="list-style-type: none"> <li>- Event organiser.</li> <li>- Investor.</li> <li>- Organisations</li> <li>- Established trainer.</li> </ul>	<b>KEY ACTIVITIES</b> <ul style="list-style-type: none"> <li>- Provide tutorial.</li> <li>- Advertise event.</li> <li>- Set fitness challenge.</li> <li>- Display leader boards</li> <li>- Share activities</li> <li>- Join upcoming event.</li> </ul>	<b>VALUE PROPOSITIONS</b> Users: a. Starters <ul style="list-style-type: none"> <li>- User can learn the right way to exercise alone.</li> <li>- User does not feel insecure to start exercise for starters.</li> <li>- User does not need to pay a lot for personal trainer or gym entrance</li> </ul> b. Fitness activities lover <ul style="list-style-type: none"> <li>- Can challenge their own current record.</li> <li>- Can participate in the event offered in the apps or website.</li> <li>- News about fitness events in the application.</li> </ul> Organisers: <ul style="list-style-type: none"> <li>- Organisers can promote their events.</li> </ul>	<b>CUSTOMER RELATIONSHIP</b> User: <ul style="list-style-type: none"> <li>- Social media.</li> <li>- Customer service.</li> <li>- Review, rating and feedback system.</li> <li>- Email</li> </ul> Event Organiser: <ul style="list-style-type: none"> <li>- Meetings</li> <li>- Social media</li> <li>- Email</li> <li>- Rating and feedback</li> <li>- Review</li> </ul>	<b>CUSTOMER SEGMENT</b> Users: a. Starters <ul style="list-style-type: none"> <li>-the user who want to start exercise activities</li> <li>-user that have low self-esteem to go to gym</li> <li>-Do not want to spend a money on personal trainers</li> </ul> b. User that love fitness activities <ul style="list-style-type: none"> <li>-User who love to challenge their limits or record in running or endurance.</li> <li>-User who love to participate in the current fitness events</li> <li>-User who love to get up to date fitness events.</li> </ul> Event Organiser: <ul style="list-style-type: none"> <li>- Provide platform to advertise</li> <li>- Event registration</li> </ul>
	<b>KEY RESOURCES</b> <ul style="list-style-type: none"> <li>- Event</li> <li>- Current technology (smart phone, tab, lap top and personal computer).</li> </ul>		<b>CHANNELS</b> <ul style="list-style-type: none"> <li>- Mobile apps for iOS.</li> <li>- Mobile apps for android.</li> <li>- Website.</li> <li>- Network of mosque</li> <li>- Physical store</li> </ul>	
<b>COST STRUCTURE</b> <ul style="list-style-type: none"> <li>- Fitness trainer.</li> <li>- Marketing activities.</li> <li>- Technology infrastructure.</li> <li>- Development of system</li> </ul>		<b>REVENUE STREAMS</b> <ul style="list-style-type: none"> <li>- User need to pay for premium features.</li> <li>- Advertisement fee</li> <li>- Registered event</li> </ul>		

**Fig 9: Enhancement Business Model Canvas**

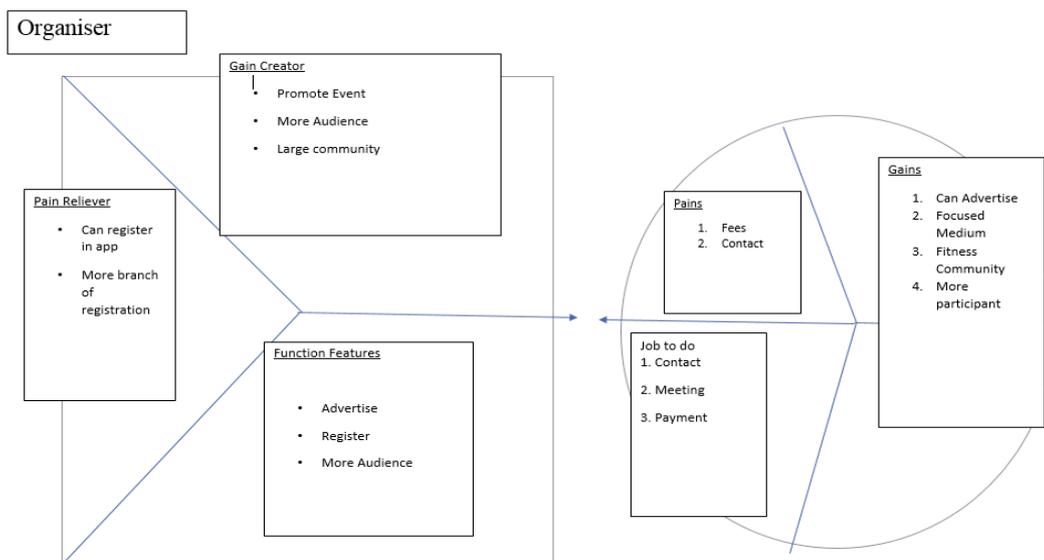
- A. **Customer Segment:** FitAlert added a categorized customer segments (beginner, intermediate, professional) to easily provide the needs of the user according to their respective category.
- B. **Value Proposition:** The value of proposition is changed according to the new added category
- C. **Channel:** New added channel are Network of Mosque and Physical store were added to enhance the smoothness approach to the users.
- D. **Customer Relationship:** Customers can do interaction by using social media, customer service, reviews, email and NoM

- E. **Key Resources:** The key resources are based on the latest trend of fitness community. It is for the advancement approach of fitness. Other than that, the community of FitAlert is also play a big role in key resources.
- F. **Key Activities:** FitAlert approached the user by developing a web portal and a mobile application for the users.
- G. **Key Partners:** The key partners of FitAlert is mainly the fitness trainer, fitness organiser and fitness organization.
- H. **Cost Structure:** Cost structure explains the cost that must be spent by the company in order to maintain the business. For FitAlert, the main costs will be on developing and maintaining the web and mobile applications. We will have to pay our developers, permanent employees and company advisors too. On top of that, we need to pay the trainers hired for the knowledge.
- I. **Revenue Stream:** Revenue Stream will be coming from the Premium Features of the app. Other than that, revenue also come from the advertisement fees and registered event through the app.

### IX. ENHANCEMENT VALUE PROPOSITION CANVAS



**Fig 10: User Enhancement Value Proposition Canvas**



**Fig 11: Organizer Enhancement Value Proposition Canvas**

**Product Key Features:**

1. Mobile Platform
2. Latest fitness news and information
3. Register through app
4. Complete step by step exercise tutorial
5. Joining fitness community
6. Get rewards upon challenges completion
7. Advertise fitness events
8. Freemium features

**X. CONCLUSION AND FUTURE WORK**

To conclude, this conceptual fitness application will help their users to get fit anywhere, anytime in Malaysia. This new concept of fitness, community and lifestyle also can help their user to get healthy and avoid the user go to clinic and hospital regularly and also reduce the risk to get sick. It was clear that mobile health apps had great potentials in improving healthcare and health education for the public. There was still plenty of space to grow for mobile health apps to take full advantage of unique mobile platform features [22].

In addition, by using this app, it is a great way to involve yourself in a fitness event such as marathon and others. Through FitAlert, users can participate in an event and register themselves through an app. Users do not have to look for events as FitAlert already built to update on latest fitness events all around Malaysia.

The community section available in the app can allow user to connect and communicate with other users. It will build a new community that based on fitness and health in Malaysia.

In the future, the conceptual fitness and health based app can be taken to the next step by building the concrete product out of the concept. The new features also can be added such as organizing an events for further involvement of people.

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