



اَوْنِيُوْسِيْتِي تِيْكُوْلُوْجِي مَارَا  
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TEKNOLOGI  
MARA

TECHNOLOGY-BASED BUSINESS IDEA BLUEPRINT  
AUTO INFLATABLE TRAVELLER BACKPACK

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## 1.0 EXECUTIVE SUMMARY

The auto inflatable traveller backpack is an invention that combine the function of life jacket, traveller backpack and proximity location marker. The design of the backpack is not obviously stacking up the things together but making it easy to handle and serve its purpose under harsh conditions of natural environment. The business that we as a company encounter is based on new product development which is improving already exist product to another level of performance. The target population is include offshore worker and recreational enthusiast because this people will carry their things anywhere in several environments. This product will eventually help the target population to make their works easier without worrying about their belongings exposed to bad weather and natural environment. The product will be entirely beneficial for them during those time.

The backpack produce from competitors may have several designs, features and added value to enhance its purpose as the best traveller backpack according to the target population needs and want. The competitive from other company is very intense which make our company come out with new improve backpack product to challenges those competitors on product sales. We believe that this auto inflatable traveller backpack will gain profit as intended because we have conducted several concept testing to improve the features and design before it make it to the market. The information given from respondents is important to finish the end product with quality assurance and good expectation. Furthermore, the business operation must have a dedicated team to establish good product quality. Every process of the product must take into account from research and development, marketing, advertising, promoting and selling to ensure its success in the market. Therefore, our company belief that this technology-based business idea blueprint is one strategic way to start the business effectively.

## 2.0 PRODUCT/SERVICE DESCRIPTION

### 2.1 PRODUCT

Backpack is an essential thing that every people must have. Backpack have many designs, function, colour and their own specialty to fulfil the daily needs of people around the world. Nowadays, the backpack is design not only daily use but for many other purposes such as for business, outdoor, recreational activity, camping, hiking, water sports, tech and gadget. Variety of material have been used to make the most innovative, durable and sustain in any natural environment in the backpack industry. Therefore, our company are developing new backpack that is durable which can sustain much force impacted on the backpack body and

equip with inflatable features if in case of emergency such as fall on deep water or mud. In addition, our backpack material has water-resistant material and dust-resistant to keep the inside of the backpack remain unharmed and soak. Most of other backpack in the market is already suited for water environment, muddy pool and high impact activity. However, our company enhance the backpack features to another level which is equip with beacon for ease of finding if the backpack has been stolen or forgotten. Therefore, we believe that our product will be practically useful and comfort to use in daily basis.

## 2.2 APPLICATION OF THE PRODUCT

The primary usage is mainly focus on the design and accessibility of the backpack. The traveller backpack must have the integrity and durability which prevent it from breaking apart when travelling with a maximum load of the back. There are a variety of backpack that consumers can choose whether the high quality backpack and low quality. Travellers are recommended to buy the high quality backpack to make it last long and maintain the shape of the backpack even though it has been squished numerous times with other travellers' backpack. Therefore, materials are the key component to the high quality backpack products. Moreover, the design of a backpack is the critical value whether the customer intended to buy it or not. The design must provide easy usage, comfortable, convenient, free of hassle and secure to the travellers. Nowadays, there are many designs that are intended to assist the travellers rather such as dirty compartments, hidden compartment, attachable accessories, rain cover and etcetera. The orientation of access also makes a huge factor to easy access belongings of the traveller such as front loading, bottom loading and top loading. In addition, design and material use must be aligned in developing quality traveller backpack because consumers do not want to buy if it lacks in these two factors.

The secondary application is about the survivability of the backpack which has its own uniqueness to promote its functions to the consumer especially travellers. The issue that must be addressed here is about the IP rating practicality and occurrence of an emergency case that involved the backpack. The IP rating gives a specific amount of water-resistant and dust-resistant to a certain extent based on the number of IP ratings offered by manufacturers such IP67 or IP68. However, the backpack with approved IP rating cannot withstand a long time submerged in water with pressure acting on it and eventually it will fail to protect the backpack if it's not taken care immediately. The product of current backpack is addressed to use by mainly offshore worker and traveller populations. Therefore, a technology must be applied to this backpack to ensure safety measures in case of emergency such as fall in water or sea which is the inflatable backpack. The inflatable backpack technology is combined with IP rating to enhance its usage floating on the water.

## 2.3 FEATURES OF THE PRODUCT

The product information collection is crucial to gain valuable data on the close competitors such as materials used, features, uniqueness, attachable accessories, price, customer view and demand of the product. The closest competitors that we have analysed since the early product development is from Wandrd brand. The Wandrd has a variety of stylish yet functional traveller backpack that have been designed for weather-resistant, easy to handle, customizable camera protection, packable and lightweight. There are two references of backpack in Wandrd brand which are VEER Packable Bag and The PRVKE Series which have their own uniqueness and specific usage but mainly for travelling. Next, is the CE Adult Inflatable Life Jacket is the benchmark reference for our automatic inflatable system to practically activate after the system has been embedded in the traveller backpack.

The main materials of the developmental product are not too pricey as compared to the Wandrd PRVKE Series which uses Tarpaulin and Robic 1680D so we choose the 1050D Nylon Cordura as it already shows strong and durable material. The design of this developmental product was also inspired by the Wandrd PRVKE Series but there a certain thing we neglected about the design and proceeded to self-design the rest of the surface of the backpack with top and front-loading type. Furthermore, our product features will come with an IP rating which is the common use of rating for water-resistant and dust-resistant for mobile phone, gadget, backpack, fabric and clothing. Therefore, our product has IP67 rating which material is offers protection from being completely submerged under at least 1 meter for at least 30 minutes and offers protection from dust that would be able to interfere with the general operation of the product. As for the inflatable features, it is inspired from the VEER Packable Bag but we redesigned and embedded it in the inner layer of the backpack which consist of shoulder strap, collarbone, back, bottom and the two side area. Moreover, the life jacket system we attached near the back area and the shoulder strap for easy access. Overall, the auto inflatable traveller backpack targeted the price range is below the reference brand as our objective is to develop a self-administered high-range product quality that uses affordable yet sturdy materials.