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BUSINESS PLAN  
FLEXABLE SDN. BHD.

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Business Plan prepared August 2017  
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## DECLARATION

We hereby declare that:

- (1) This UBTZ3016 Entrepreneurial project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this Entrepreneurial project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the Entrepreneurial project.
- (4) The word count of this Entrepreneurial Project is 21,435 words.

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## **1.0 EXECUTIVE SUMMARY**

### **1.1 The Opportunity**

The management team of Flexible Sdn. Bhd. has identified the issue of heavy school bags that primary children have to carry to and from school every day and the negative impacts caused by it.

### **1.2 The Description of the Business**

Flexible Sdn. Bhd. is an accessory manufacturing company under the backpack industry that produces an external adjustable backpack frame, called the EXA FRAME.

### **1.3 Competitive Advantage**

Flexible Sdn. Bhd. has competitive advantage in the industry due to the first mover advantages of EXA FRAME.

### **1.4 The Target Market**

The target markets for Flexible Sdn. Bhd. include retail chain, book store chain and individual school supplies store.

## 1.5 The Management Team

The founders of Flexible Sdn. Bhd. will be nominated as the management team member. Mr. Loh Zhang Chee will be the Chief Executive Officer; Ms. Lim Sze Kee as the Human Resource Manager; Ms. Tan Ying Ying as the Marketing and Public Relation Manager; Ms. Lim Liew Jiun as the Accounting and Finance Manager; and lastly, Ms. Wong Fong Theng will be the Operations Manager.

## 1.6 Brief Summary of the Financial Projections

Financial Statement 1.1: Income Statement for 2018-2022

Year Items	2018 (RM)	2019 (RM)	2020 (RM)	2021 (RM)	2022 (RM)
Sales	874,811.32	1,138,018.87	1,707,169.81	2,048,490.57	2,458,188.68
(-) Cost of Goods Sold	385,926.34	501,313.11	750,614.02	900,069.30	1,079,502.78
Gross Profit	488,884.98	636,705.76	956,555.79	1,148,421.27	1,378,685.90
(-) Expenses	891,323.20	904,657.20	940,535.20	959,878.20	1,047,639.40
Net Profit / Loss before Tax	-402,438.22	-267,951.44	16,020.59	188,543.07	331,046.50
(+) Depreciation	50,499.00	50,499.00	50,499.00	50,499.00	50,499.00
Taxable Income	-351,939.22	-217,452.44	66,519.59	239,042.07	381,545.50
(-) Corporate Tax	NIL	NIL	11,973.53	43,027.57	68,678.19
Net Profit / Loss after Tax	-351,939.22	-217,452.44	54,546.06	196,014.50	312,867.31
(-) Depreciation	50,499.00	50,499.00	50,499.00	50,499.00	50,499.00
Net Profit / Loss	-402,438.22	-267,951.44	4,047.06	145,515.50	262,368.31

Source: Developed for the research

Financial Statement 1.2: Cash Flow Projection for 2018-2022

Year Items	2018 (RM)	2019 (RM)	2020 (RM)	2021 (RM)	2022 (RM)
Cash Inflow	1,418,810.00	1,436,349.74	1,830,070.34	2,277,085.21	2,949,401.02
Cash Outflow	1,188,760.26	1,415,879.40	1,724,385.13	1,933,364.19	2,253,639.61
Cash Balance	230,049.74	20,470.34	105,685.21	343,721.02	695,761.41

Source: Developed for the research

Financial Statement 1.3: Balance Sheet for 2018-2022

Year Items	2018 (RM)	2019 (RM)	2020 (RM)	2021 (RM)	2022 (RM)
Fixed Assets	314,491.00	263,992.00	213,493.00	162,994.00	112,495.00
Current Assets	240,539.74	31,610.34	116,305.21	354,211.02	705,783.41
(-) Current Liabilities	27,468.96	35,992.00	66,140.81	108,032.12	146,737.20
Net Assets Employed	527,561.78	259,610.34	263,657.40	409,172.90	671,541.21
Financed by:					
Capital	930,000.00	527,561.78	259,610.34	263,657.40	409,172.90
Net Profit / Loss	-402,438.22	-267,951.44	4,047.06	145,515.50	262,368.31
Capital Employed	527,561.78	259,610.34	263,657.40	409,172.90	671,541.21

Source: Developed for the research

## 1.7 Description of What the Business Needs

The total amount of contribution from five founders is RM 30,000. Besides, we also will obtain the fund from Graduate Entrepreneur Fund and Women Entrepreneur Financing Program. The company may have a total capital funding of RM 930,000 which will be used for paying all relevant registration fees, renovation cost, and purchasing of office equipment, vehicle and machinery. The total start-up cost incur is RM 438,490.

## **1.8 Exit Strategy for Investor**

In order to end up the business, the exit strategy could be apply is either liquidation or merger.

## 2.0 THE BUSINESS

### 2.1 The Description of the Business

#### 2.1.1 The Name, Logo, and Location of the Propose Business

##### Name and Logo of Proposed Business

The company's name is Flexible, the abbreviation of flexible and able. It symbolises that products being offered provide flexibility and will deliver performance as promised. As the company is registered under private limited company in Malaysia, the use of 'Sdn. Bhd.' is necessary under Companies Act 1965 (CA 65).

Figure 2.1: Flexible Sdn. Bhd.'s Logo



Source: Developed for the research

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When combining the initials of the 5 founders' last names, 'LTW' is produced. 'L' comes from Loh Zhang Chee, Lim Sze Kee, and Lim Liew Jiun. 'T' comes from Tan Ying Ying meanwhile 'W' comes from Wong Fong Theng. The logo of the company is designed using the letters 'LTW'. Thus, creating another letter that resembles 'F', that stands for the company name - Flexible.

The colour blue is often associated with stability, creativity, responsibility and trustworthiness. These characteristics matches well with our company mission in providing affordable, dependable, and innovative products. In addition, it is the colour that we are fond of.

### Logo of Product

Figure 2.2: Flexible Sdn. Bhd.'s Product Logo



Source: Developed for the research

The product name, EXA FRAME is created and used because Flexible's product is an external adjustable backpack frame. The product logo design is inspired by the koala bear. It is a cute and cuddly animal that spends most of its time climbing trees and eating eucalyptus leaves. According to "What is My Spiritual Animal" (2017), koala bear symbolises safety, joy, peacefulness, memory, sensitivity, overcoming, mindful movement, faith and confidence.

The koala bear is used to represent Flexable’s product because of its tree-hugging habits. The act of hugging the tree has a close reference to our product when being worn by primary children in a sense that the tree represents the primary children and the koala bear represents their school bags and our product being worn firmly on their bodies. Besides, Flexable wanted to use the cute appeal of koala bears to attract primary children’s attention. In addition, purple is a happy colour for primary children and it is the colour of popular children’s television character “Barney” and “Tinky Winky”, the purple Teletubby from the BBC.

### Location of Proposed Business

The proposed business is located in Batu Gajah, Ipoh. This is because of cheaper rental costs compared to other regions and the easy access to highways for supply chain and logistics convenience. There, the manufacturing process, clerical and other administrative works will be conducted. Finished goods will be kept in inventory. (Please refer to Table 5.2 for comparison of rental between different areas and Figure 5.3 for location of proposed business)

### **2.1.2 Nature of Business/ Product or Services Offer**

Flexable Sdn. Bhd. is formed by 5 co-founders – Loh Zhang Chee, Lim Sze Kee, Lim Liew Jiun, Tan Ying Ying, and Wong Fong Theng. It is formed as an accessory manufacturing company under the backpack industry. Flexable will acquire raw materials from suppliers to manufacture the backpack frame. These finished goods will then be sold to retail chain, book store chain and individual school supplies stores. The business will involve machines and manpower working in a specific order. With the increase in health issues related to heavy bag loads, Flexable wanted to create an alternative other than wheeled school bags that can take the strain off primary children’s shoulders.



Flexible's product concept is to combine the functions of adaptability and comfort into one product. EXA FRAME is a strong and light weighted backpack frame that aims to provide support for primary children of age 8 to 11 years old when carrying overweight school bags. It is a unique product that can distribute weight and reduce the possibilities of permanent health problems.

### **2.1.3 Company Missions and Objectives**

Flexible Sdn. Bhd.'s vision is to become a company that is acknowledged for its innovative and quality products concerning the well-being of primary children.

Flexible's mission is to offer innovative, safe and quality assured products and add value to primary children's everyday lives by providing originality and usefulness in products through constant research, development, and efficient and effective management processes.

The company's objectives are as below:

1. To produce quality assured products to customers.
2. To ensure the safety, health and well-being of primary children.
3. To provide support for primary children while carrying heavy school bags.
4. To reduce primary children's burden for having to carry heavy school bags.

## **2.2 The Opportunity**

### **2.2.1 Problem to Solve or Need to be Filled**

Ensuring the health, safety and well-being of primary children are the paramount importance to all parents. The topic of heavy school bags and their negative impacts on primary children's health has never really been off the table. It has always been an on-going concern among parents and consumer associations all around the world, particularly towards children age below 15. Parents still find their primary children stuffing their school bags with heavy textbooks and notebooks due to their rigorous

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academics. Nearly all bring their own lunch pack and water and drinks as majority schools do not provide purified water fountains or dispensers. In addition, sport equipment and other personal belongings are carried as well, looking as if they were a Mount Everest- ready Sherpa.

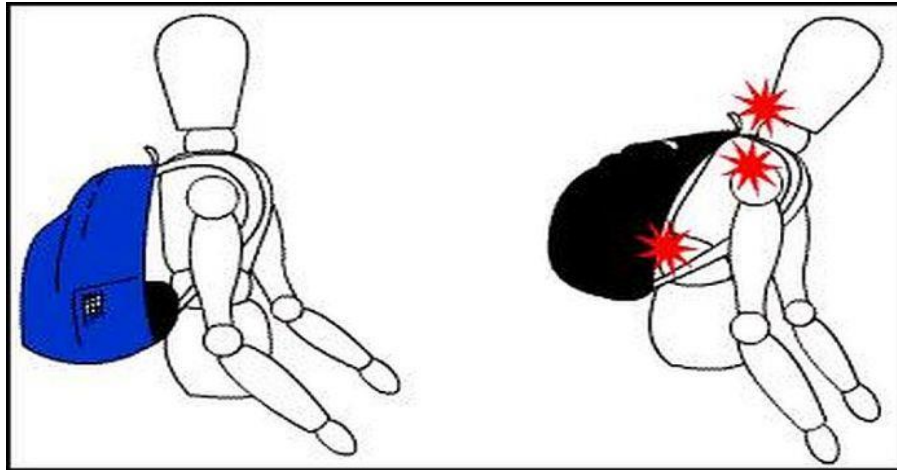
Many primary children these days opt for wheeled school bags as an alternative to carrying heavy school bag. They are highly mobile and take the strain off children's shoulders. Thus, they may help reduce risks associated with carrying heavy school bag. However, only primary children studying at ground floor classes benefit from this. Primary children would be exposed to dangers of falling down the staircase if they do not have the strength and muscles to carry their wheeled school bags up the stairs. Besides, people may trip over them because they glide along the floor.

The Indian Journal of Paediatrics noted that overweight school bags will cause fatigue, changes in the angle of the shoulder and lower limb, neck pain, and affects overall posture. Long- term use of overweight school bags can cause back pain as shown in a study done by Universiti Putra Malaysia (UPM) that revealed that as high as 58.3% of primary children have low back pain associated with carrying heavy school bags. Health practitioners noted that school bag weighing more than 20% of a child's body weight is very likely to severely harm the child's spine, increasing the risks for scoliosis that will lead to lifelong back ailments (Malaysian Digest, 2014).

In other words, heavy school bags put primary children's health and physical development at risk. The prevention of back pain and any musculoskeletal problems is important for primary children's current well-being and long-term health. Though the Government, school and parents have taken initiatives in dealing with overweight school bags such as coming up with tabs, e-school books and ensuring primary children stick to their time tables, not much has been achieved and is still a burning issue until today. An interview we have conducted with a chiropractor mentioned that apart from our bodies, we could have some other support to carry the weight of school bags. While it is impossible to make primary children's school bags lighter by reducing the number of books, given their scheduled time table, we

take this opportunity to come up with a better solution before it adversely impacts a vital facet of life.

Figure 2.3: Pains from Heavy School bag



Source: MorningKashmir.com. (2016)

### **2.2.2 How the Proposed Business Solves the Problem or Fills the Need**

Flexible will come up with a product to support primary children with heavy school bags. This product is a light weighted, durable backpack frame which is designed to prevent primary children from risks associated with carrying heavy school bags to and from school. This product is called EXA FAME. It comes with features that help distribute the weight of primary children's school bags and keep them close to the body. To prevent more weight from adding onto their school bags, EXA FRAME will be made of materials such as carbon fibre which is light and strong and foam for comfort.

EXA FAME will have an adjustable waist strap and the sternum/ chest strap that provide the best support only when used together. The waist strap carries most of the weight while the sternum strap keeps the backpack close to the body. The bottom panel provides a surface that also helps carry the backpack. Since primary children are active in nature, EXA FRAME will come with two additional straps

called the “X” layer for anti-shaking purposes, securing the backpack and keeping it close to the frame and body. With the features in EXA FRAME, it will help lower the risks of health implications when students are carrying heavy loads.

## 2.3 Competitive Advantages

### 2.3.1 Description of the Business Model

Figure 2.4: Business Model for Flexible Sdn. Bhd.

<p><b><u>Key Partners</u></b></p> <ul style="list-style-type: none"> <li>- Suppliers (Raw materials and components)</li> <li>- Subcontractors</li> <li>- Third Party Logistics Company</li> </ul>	<p><b><u>Key Activities</u></b></p> <ul style="list-style-type: none"> <li>- Production</li> <li>- Marketing and Selling</li> <li>- Research and development</li> </ul> <p><b><u>Key Resources</u></b></p> <ul style="list-style-type: none"> <li>- Tangible Assets: Warehouse, Equipment and Machineries and Human Capital</li> <li>- Intangible Assets: Trademark, Patent</li> </ul>	<p><b><u>Value Proposition</u></b></p> <ul style="list-style-type: none"> <li>- Lightweight and durable</li> <li>- Adjustable waist strap</li> <li>- Anti-shaking straps</li> </ul>	<p><b><u>Customer Relationships</u></b></p> <ul style="list-style-type: none"> <li>- Customer service</li> <li>- Trust and sharing information</li> <li>- Fair price</li> <li>- Payment terms</li> </ul> <p><b><u>Channels</u></b></p> <ul style="list-style-type: none"> <li>- Retail Distribution Channel</li> </ul>	<p><b><u>Customer Segments</u></b></p> <ul style="list-style-type: none"> <li>- Retail chain</li> <li>- Book store chain</li> <li>- Individual school supplies store</li> </ul>
<p><b><u>Cost Structure</u></b></p> <ul style="list-style-type: none"> <li>- Purchase of raw materials and use of subcontractors</li> <li>- Operations and Overhead Cost</li> <li>- Sales and Marketing Cost</li> <li>- Logistic Cost</li> <li>- Research and Development Cost</li> </ul>		<p><b><u>Revenue Streams</u></b></p> <ul style="list-style-type: none"> <li>- Selling EXA FRAME</li> <li>- Selling replaceable spare parts</li> </ul>		

Source: Developed for the research

We used the Business Model Canvas to help us develop and pivot our business model. It serves as guidance for us to run our business successfully in the competitive market. It allows us to plan up strategies for our business too.

## **(I) Key Partners**

### a) Raw Material and Component Suppliers

Flexible Sdn. Bhd. aims to produce quality products for customers. The right suppliers are crucial in supplying raw materials and components needed to produce EXA FRAME. These suppliers are the suppliers for GPS, carton box, tools of moulding, cotton glove, plastic packaging and stretch film, sealing tape and pallet.

### b) Subcontractors

Besides, Flexible will partner with subcontractors to help in sewing the EXA FRAME's cover and cutting the carbon fibre prepreg. Carbon fibre and the EXA FRAME's cover will be subcontracted.

### c) Third Party Logistics Company

Other than that, third party logistics companies are one of the key partners needed to deliver EXA FRAME to our customers. Logistics companies will also play a role in sending raw materials and components from suppliers to our warehouse. Thus, it is important for the company to build and maintain a good relationship with these key partners to avoid disruption in the supply chain.

## **(II) Key Activities**

### a) Production

Production of the EXA FRAME is one of the key activities of Flexible Sdn. Bhd. which includes manufacturing and the use of subcontractors. Besides that, quality checking is significant to ensure that products are meeting high quality standards and reduce the probability of defected products. This can

improve customers' confidence towards the company. Packaging and labelling are the last steps to complete the production of EXA FRAME which will then be shipped to the respective customers. All these process activities aim to create value to the customers.

b) Marketing and Selling

The activities of marketing and selling EXA FRAME are important to attract more targeted customers and boost sales. EXA FRAME will be promoted to reach end customers' awareness through campaigns conducted by retail chain. As a new start up, marketing is significant in persuading potential customers and retaining them. The success in convincing EXA FRAME will lead to good selling achievements.

c) Research and Development

As EXA FRAME reaches maturity stage, there will be an increasing number of competitors. Thus, research and development activities will be conducted to do improvements, find new target markets and possibly develop new innovations.

### **(III) Key Resources**

a) Tangible Assets

The tangible assets of Flexible Sdn. Bhd. include warehouse, equipment, machines and human capital. The use of warehouse will comprise of administrative and manufacturing activities. The appropriate equipment are vital assets in operating the business. Administrative works require office equipment, while the production line requires appropriate machineries and equipment to complete the production process.

Human capital involves those skilled and knowledgeable employees which are the main assets for any business' success. All employees either in management team or production team must understand the whole company's business. Adequate manpower is needed to ensure smooth flowing of business. Each employee plays a different role in their job area respectively that helps in the company's growth.

b) Intangible Assets

Flexible's intangible assets are the intellectual properties which will be applied in the future to gain competitive advantages in the industry. We plan to register the company name "Flexible" and the company logo as trademark to prevent it from being used or plagiarized by other parties. Other than that, the frame of EXA FRAME and its production process will also be patented as a means of ownership, to distinguish this product from competitors and to avoid it from easily duplicated by others.

**(IV) Value Proposition**

a) Lightweight and Durable

EXA FRAME is a user-friendly product. One of the selling point of our product is the use of carbon fibre. Carbon fibre, sometimes known as graphite fibre is a lightweight material that is five-times stronger than steel and twice as stiff (Innovative Composite Engineering, 2015). Thus, EXA FAME will have a longer lifespan.

b) Adjustable Waist Strap

Consumers do not need to buy multiple EXA FRAMEs for their growing children because it is designed with an adjustable waist strap. It is not only adjustable according to waist sizes, but in terms of torso length as well. To achieve maximum comfort, the product must fit the customer just right.

c) Anti-shaking Straps

EXA FRAME will have two straps that look like the alphabet “X”. It serves to secure primary children’s school bags and prevents swaying left and right when being used.

**(V) Customer Relationships**

a) Customer Service

Flexible will provide service for the retail chain, book store chain and individual school supplies stores. They may call our customer service hotline at 1-800-777-468 for any enquiries whereby our customer service team will answer their questions to full satisfaction.

b) Trust and Sharing of Information

Flexible will provide both frequent and consistent standard of communication to B2B customers. Trust can avoid suspicion and benefit to maintaining a long-term relationship with them.

c) Fair Price

As manufacturers of EXA FRAME, it is important to cover the costs and make profits from selling it. Flexible will charge a fair price to B2B customer to avoid conflicts by standardizing the selling price.

d) Payment Terms

Flexible will provide B2B a 30 days or 60 days period of time to complete their payments. We will communicate the payment terms thoroughly and set up a clear and specific invoicing system to ensure both parties are benefited.



**(VI) Channels**

## a) Retail, Book Store and Individual School Supplies Distribution Channel

Flexible Sdn. Bhd. will conduct direct distribution of channel for business-to-business (B2B) marketing. The reason is because EXA FRAME is a seasonal product that will be produced and sold in a large amount during favourable seasons. Doing B2B with retail chain, book store chain and individual school supplies stores can help increase our brand visibility through physical branding. They are also able to help get our logo and message out and attract more attention compared to people seeing it online.

**(VII) Customer Segments**

As EXA FRAME is served through B2B marketing, Flexible's target market will be those businesses that involve the selling of backpacks. In other words, they are retail chain, book store chain and individual school supplies stores. As they have more customer exposure, EXA FRAME can be displayed to reach a greater amount of end customers. These customers are our main sources of revenue because they will purchase in bulk. Lesser profit margin might be earned from them but on the plus side, the large sales volume may generate adequate profit to the company. Hence, it is important to maintain long term relationships with them.

**(VIII) Cost Structure**

## a) Purchasing of Raw Materials and Use of Subcontractors

Flexible will have to bear costs of purchasing of raw materials, machineries and the use of subcontractors. All the respective suppliers and subcontractors are decided through careful considerations (refer to Chapter 5) to produce safe and quality products.

b) Operations and Overhead Cost

Flexible will incur operations and overhead costs such as monthly rental, renovation, salary of management team members and workers and utility fees. As the company expands, Flexible will have to bear more costs as more employees will be employed, more marketing and promotions to be done and so on.

c) Sales and Marketing Cost

Flexible will allocate a fund for sales and marketing activities. At the beginning of start-up, flyer printing costs may be needed to introduce and promote the company as well as EXA FRAME to the public. Besides, this cost also includes the long run costs for newspaper advertising, especially during seasonal promotions like the beginning and end of the years.

d) Third Party Logistics Cost

The outsourcing of transportation of logistics company will incur considerable amount of logistics cost in receiving raw materials from suppliers and delivering finished goods to customers.

e) Research and Development Cost

Research and development costs will be incurred once every 2 years. This is because Flexible plans to launch new products every 2 years. During each of the 2 years period, costs that will incur include purchasing of materials for prototypes and often the ownership of intellectual properties in the form of patents or copyrights.

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## **(IX) Revenue Streams**

Flexible will generate revenue from the selling of EXA FRAME. The revenue gained from the sales will be sufficient enough to cover the production cost per unit incurred. In addition, revenue will be generated from the selling of replaceable spare parts to retail chains, book store chains and individual school supplies stores at a reasonable price in which they will provide after sales service to the end customers.

### **2.3.2 How the Business will Create Sustainable Competitive Advantages**

The company will cease first mover advantages in Malaysia through EXA FRAME. Gaining first mover advantages allows Flexible to gain considerable market shares before competitors do. It will be the first ever product that would prevent primary children from risks and negative effects of carrying heavy school bags. EXA FRAME comes with features like no other ordinary bags have. Parents need not fear that primary children's existing bags would go to waste, because EXA FRAME is used together with primary children's school bags.

Like our company name, EXA FRAME is flexible and is adjustable according to different torso lengths since different primary children have different torso lengths due to age factor or genetics. In addition, children have different chest sizes. EXA FRAME comes with a sternum strap that is adjustable and keeps the shoulder straps close.

According to Rahim (2016), cases of missing children in 2014, 2015 and Jan of 2016 were 2015 cases, 1782 cases and 140 cases respectively. Since this problem has always been a concern, EXA FRAME will come with a Global Positioning System (GPS) located on the right side of the waist strap that enables parents to track their primary children's locations especially when in doubt. Parents are encouraged to download the GPS tracking app called iTracking that can be found in Google's Play Store and Apple App Store.

## 2.4 Current Status and Requirement

### 2.4.1 Description of Where the Business Stands Today and What the Business Needs to Move Forward

Table 2.1: Pre-commencement Milestone

Activities	Beginning date	Ending date	Duration (days)
Come up with business plan	1 Feb 2017	30 June 2017	150
Raise funds	1 July 2017	24 Sept 2017	86
Search and acquire warehouse	25 Sept 2017	22 Oct 2017	31
Registration of business	23 Oct 2017	29 Oct 2017	7
Obtaining business license	30 Oct 2017	12 Nov 2017	14
Registration of Goods & Services Tax (GST)	13 Nov 2017	19 Nov 2017	7
Product licensing, patent and copyright from MyIPO	20 Nov 2017	26 Nov 2017	7
Compare, negotiate & sign agreements with suppliers and contractors	27 Nov 2017	24 Dec 2017	28
Creation of company web page and Facebook page	25 Dec 2017	31 Dec 2017	7
Opening ceremony	1 Jan 2018	1 Jan 2018	1

Source: Developed for research

The use of e-books in Malaysia's education institutions is a rather new phenomenon. In 2009, Terengganu became the first state in the whole South East Asia to provide primary schools with e-books. The state government has spent about RM100mil to distribute 92,224 units of e-books to 127 primary schools (The Star Online, 2011). If the Malaysian Ministry of Education decides to provide all 10,000 schools in

Malaysia with Internet access and “virtual learning environments”, Flexible believes that this project is still in infancy stage and only implemented in one state.

Apart from this, we believe that EXA FRAME is a complementary product that is used together with primary children’s school bags. Even though e-books greatly reduce the weight of textbooks, primary children would still need to carry PCs, lunch packs, water and other personal belongings in their school bags. Besides, it would take considerable time and money before e-books or tablet PCs to make an entrance into the curriculum and classrooms in schools of Malaysia. For the time being, Flexible will conduct continuous research and development regarding this matter as well as improvements or new ideas.

Table 2.2: Project Milestone for 2018 – 2022

Year	Activities
2018	- Focus on make-to-plan – produce large volume of products
2019	- Application for International Organisation for Standardization, ISO 9001: 2015 - Application for International Organisation for Standardization, ISO 14001: 2015 - Conduct further research and development - Enhancement to product
2020	- Expand to other countries starting with Southeast Asia
2021	- Launch new product - Focus on make-to-order – customize products based on customers’ taste and preferences
2022	- Expand to foreign countries

Source: Developed for the research

## 3.0 INDUSTRY ANALYSIS

### 3.1 Industry Description

#### 3.1.1 Industry Trends

Figure 3.1: Evolution of School Bag



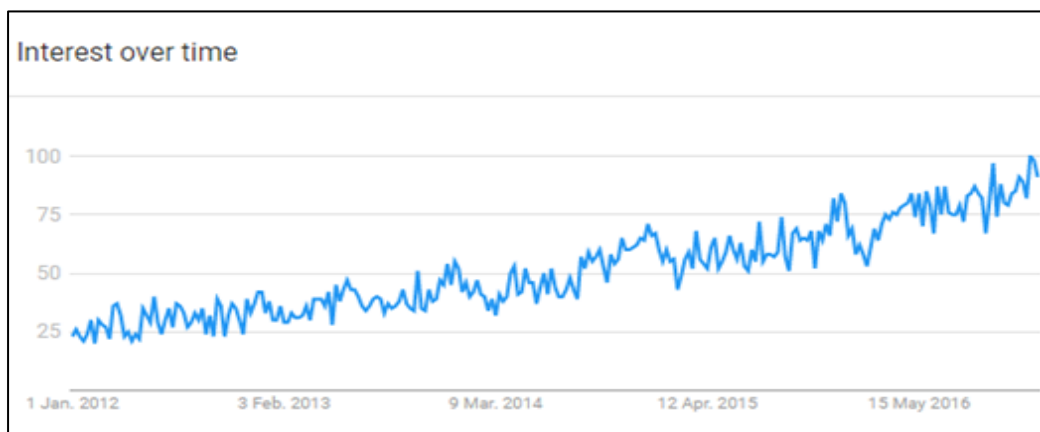
Source: Developed for the research

Nowadays, technologies are getting advanced and people's expectations are getting higher. To compete and survive in this competitive market, companies always innovate products in terms of design and function to gain greater market share. The evolution of backpacks has brought greater convenience to people.

In the early stages, primary children would use tote bags, single strap bags or two strap bags to school. As time goes by, the knowledge that need to be learnt increased. Over time, the weight of the school bags increases because more textbooks and exercise books are needed. Moreover, parents will prepare breakfast for their primary children to enjoy in school. Besides, the primary children will bring water bottle with capacity around 1 litre to consume in school. In addition, they need to bring their sport suit and/or sport equipment such as badminton racket and ping pong paddle for curricular activities. When adding up these items, it will be heavy for the primary children to carry their school bags.

With the advancement of the technology, school bag designs have improved by adding new elements such as two wheels for ease of carrying and mobility. Through considerable improvements, two wheels changed to six wheels. This evolution is to bring convenience to those primary children studying at upper floors. Yet, these products are still unable to distribute the weight of the school bags. Parents nowadays are getting more concerned on their primary children's school bag weight. For that reason, we believe that our product able to distribute the weight of the school bag.

Figure 3.2: Backpacks Trend in Malaysia from Year 2012 to 2016



Source: Google Trends. (2017). *Backpack*.

From Figure 3.2, it showed that the backpack industry trend in Malaysia is increasing from year 2012 to year 2016. It is expected to continuously increase in year 2017. According to Google Trends (2017), backpack industry trend scored 91% in December 2016. High industry trend rate means that there is high demand in the backpack industry.

### 3.1.2 Industry Size

There are a few groups of main manufacturers and suppliers that our company have identified as stated below:

Table 3.1: Year of Establishment and Locations of Indirect Competitors

No	Indirect Competitors	Establishment	Location
1.	Hwa Thong Bags Industries Sdn. Bhd. (Swan Bag)	1951	Setapak, Kuala Lumpur
2.	Bagman Corporation Sdn. Bhd.	1994	Puchong, Selangor
3.	Chen Foong Sheng Sdn. Bhd.	1976	Seri Kembangan, Selangor

Source: Developed for the research

Hwa Thong Bags Industries Sdn. Bhd. was founded in 1951. It started its operations from a three-story shop in Taman P. Ramlee, Setapak. Besides, Hwa Thong Bags Industries Sdn. Bhd. started from a small family business and then slowly expanded into one of the largest bag manufacturers and distributors in Malaysia.

Bagman Corporation Sdn. Bhd. was established in year 1994. Bagman is a company that specializes in manufacturing and distributing of all kinds of bags. Meanwhile, Bagman provides tailored services in producing all kinds of bags according to customer order by offering reasonable price.



Chen Foong Sheng Sdn. Bhd. is a bag manufacturer and supplier which is almost 40 years old. It provides unique bags in terms of colours, shapes, and designs. It has more than 30 years of custom-made experience in all kinds of bag designs as well their promise to deliver the goods on time.

The above companies are concluded as Flexible Sdn. Bhd's. indirect competitors because they are offering the similar functions as our product. Our product's function is to distribute primary children's heavy school bag weight as well as enable them to maintain a good posture.

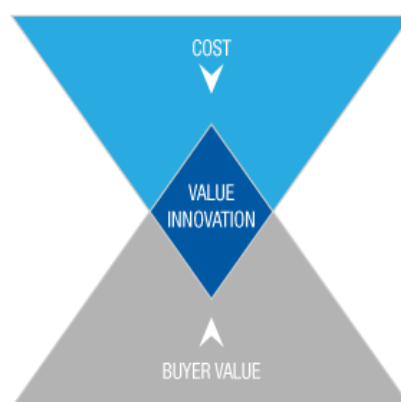
### 3.1.3 Industry Attractiveness

Flexible Sdn. Bhd has chosen Blue Ocean Strategy to conduct the industry attractiveness analysis. The reason that Blue Ocean Strategy has been chosen will be explained in the following sections.

#### Value Innovation

Value innovation is also known as the cornerstone of Blue Ocean Strategy. It places correspond emphasize on two different concepts, which are value and innovation (Kim & Mauborgne, 2015).

Figure 3.3: Value Innovation



Source: Kim, W. C., & Mauborgne, R. (2015). *Blue ocean strategy*.

Value innovation is about simultaneously driving the costs down while creating a leap in value for both buyers and the company. Methodology Kanban that is used by Flexible enables the company to reduce the manufacturing costs by reducing waste and removing activities that do not add value to the company. Moreover, by using third party logistics, Flexible is able to reduce the transportation costs. In the meantime, EXA FRAME also able to create value to customers by helping them to distribute their school bags weight as well as increase the life span of their school bags. Besides, EXA FRAME enables them to have a good posture.

### Eliminate-Reduce-Raise-Create Grid (ERRC Grid)

Table 3.2: Eliminate-Reduce-Raise-Create Grid (ERRC Grid)

<b>Eliminate</b>	<b>Raise</b>
Traditional bag method	Extend life span of backpack Awareness on the muscle pain possibility Customer product's education
<b>Reduce</b>	<b>Create</b>
Probability of muscle pain	Healthy lifestyle Trace and track

Adapted from: Kim, W. C., & Mauborgne, R. (2015). *Blue ocean strategy*.

#### 1. Eliminate

With EXA FRAME, primary children can choose the type of school bag they like whether in term of quality, fashion, or the cartoon that they like. They do not need to purchase wheeled bags as EXA FRAME provides the function that can distributing the weight of the backpack across the body which is more convenient for them. Therefore, we are able to eliminate the traditional bag method.

## 2. Reduce

Our product is focused on reducing the heavy weight of the primary children school bag by distribute the weight across their body. Meanwhile, EXA FRAME enables the primary children to develop better posture and growth of their spine by reducing the rate of gaining muscle pain.

## 3. Raise

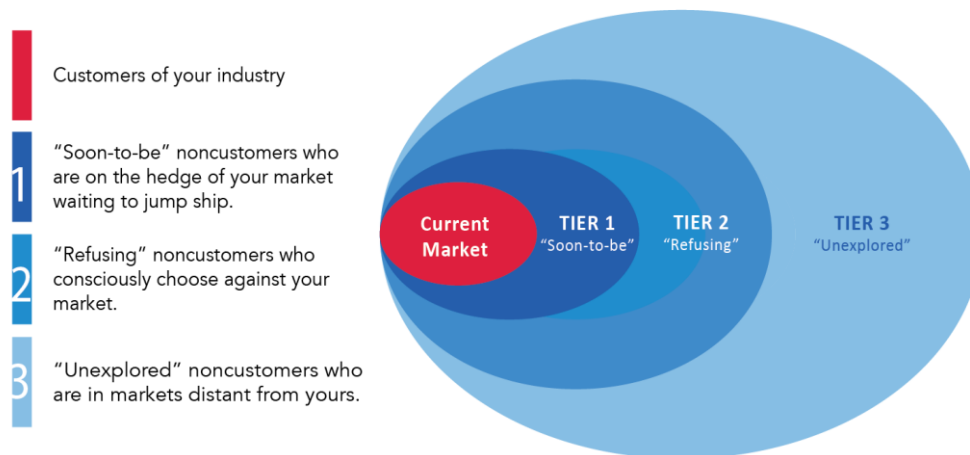
The heavier the backpack, the shorter its life spans. Thus, heavy backpacks are more easily broken. EXA FRAME can help to extend the life span of heavy backpacks by distributing the weight. Besides, Flexible Sdn. Bhd. needs to raise awareness of the customers on the severity of muscle pain which will even lead to S scoliosis curve. Then, Flexible needs to educate them the effective ways to use the backpack with EXA FRAME.

## 4. Create

Flexible Sdn. Bhd. needs to ensure that EXA FRAME can create healthy lifestyle for primary children by allowing them to have good posture and prevent symptoms such as back pain, neck pack, shoulder pain and S scoliosis curve. Moreover, Flexible has created a unique function which enable the customers to adjust their backpacks according to their torso lengths. Apart from that, EXA FRAME would come with a Global Positioning System (GPS) that enables parents to track and trace their primary children's locations.

## Three Tiers of Non-Customers

Figure 3.4: Three Tiers of Non-customers



Source: Kim, W. C., & Mauborgne, R. (2015). *Blue ocean strategy*.

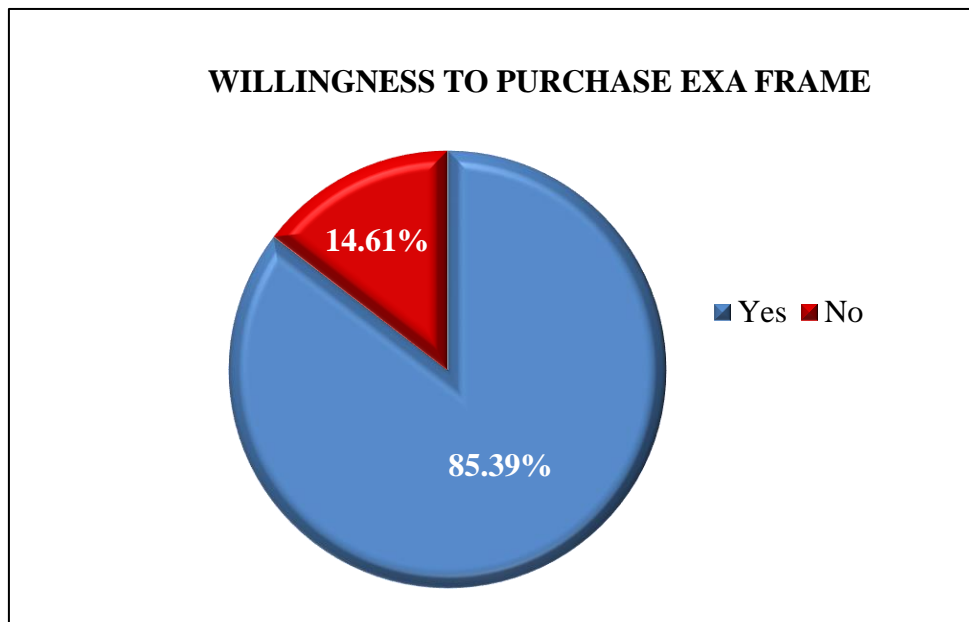
The diagram above shows the three tiers of non-customers. The first tier of non-customers is the nearest to the current market. They are also known as Soon-To-Be customers. On the other hand, the second tier of non-customers refer to those people who refuse to purchase or consume our products or any related products offered by the industry due to exceeding their expectations. Meanwhile, the third tier of non-customers is those who have never think of our company's offerings as an option.

For EXA FRAME, Flexible Sdn. Bhd. has targeted on the third tier of non-customers which is those future parents, the "unexplored" non-customers. These non-customers do not have any idea pertaining to the products with our massive promotions. We tend to create awareness about the severity of heavy backpack towards the primary children among these future parents. For instance, Flexible will organize talks on the children's product exhibition to raise the awareness of those parents. Thus, it is expected that the future parents will support and purchase our product. They have the potential to be converted into our customers as most parents are concerned about their children's health.

### 3.1.4 Profit Potential

Profit potential is always a significant factor to consider whether the business plan is workable. Therefore, there are few factors which able to prove that Flexible Sdn. Bhd. is having profit potential. We have distributed 300 surveys to our qualified customers who are primary children's parents.

Figure 3.5: Question from Survey



Source: Developed for the research

According to the survey conducted, it shows that out of 300 respondents, 85.39% or 253 respondents are willing to purchase EXA FRAME, while 14.61% of respondents show less interest in purchasing it. The analysis of the results from our survey have shown a positive response from significant amounts of potential customers. This shows that EXA FRAME is being demanded.

Table 3.3: Number of Students (Enrolment)

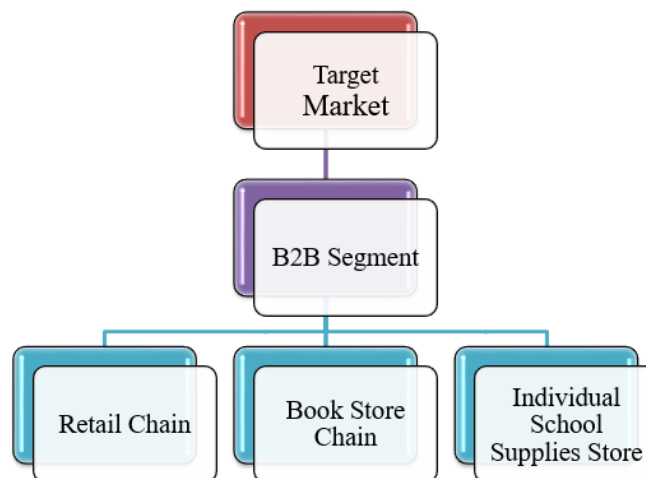
Category	Total
Pre-school	200, 684
Primary	2, 685, 403
Secondary	2, 188, 525
Total	5, 074, 612

Adapted from: Ministry of Education Malaysia.

Secondly, there is an increase in number of Malaysia's primary children enrolment. Figure 3.3 showed the statistics of Malaysia's primary children population until date of May 2016. EXA FRAME has significant relationship with the population of primary children. This is because the population of primary children indicate that demand for EXA FRAME exists in the local market. As shown on the table, there are 2, 685, 403 primary children in Malaysia. It showed significant opportunity for EXA FRAME to enter to this market.

### 3.2 Target Market

Figure 3.6: Target Market of Flexable Sdn. Bhd.



Source: Developed for the research

### **3.2.1 Retail Chain**

Flexible Sdn. Bhd. targets EXA FRAME to retailers. Well known retailers such as Aeon, Tesco, Econsave, Giant and The Store consists of high customer traffic. Besides, these retailers are available and easy to reach in many states such as Kuala Lumpur, Selangor, Perak, Penang, Kedah, Negeri Sembilan, Melaka, Johor and so on. Thus, Flexible aims to sell EXA FRAME to these retailers with large quantity and lower price.

### **3.2.2 Book Store Chain**

Besides that, Flexible will also target book store retailers such as Popular Bookstore, MPH, Times and Borders. Flexible has chosen these book store retailers because they possess at least 5 outlets around Malaysia. These book stores usually sell a variety of books such as fiction, non-fiction, and general interest books in different language magazines, stationeries, gift items and so on. Most of the students will visit book stores to purchase stationeries and books. Therefore, Flexible strongly believes that the customer traffic and good reputation of these retailers are able to resell our product faster when the students visit to their store.

### **3.2.3 Individual School Supplies Store**

Other than that, Flexible has targeted those individual retailers who are selling school utilities such as uniforms, school bags, stationeries and so on. Flexible believes that when parents purchase school uniforms or any school utility, they will also consider EXA FRAME during their purchasing. These retailers have high sales of volume especially during school holidays and back-to-school sales. Thus, Flexible believes that these retailers are able to boost company's sales.

### **3.3 Competitive Position within Target Market**

Flexible does not compare with competitors, as our company do not have any direct competitors. Comparison between indirect competitors will produce insignificant results, as backpack frame cannot compare with backpack. It is a complimentary product rather than a substitute product. Thus, no comparison is made.



## 4.0 Marketing Plan

### 4.1 Product Feasibility Analysis

#### 4.1.1 Full Description of the Product or Service Offer

##### a) EXA FRAME

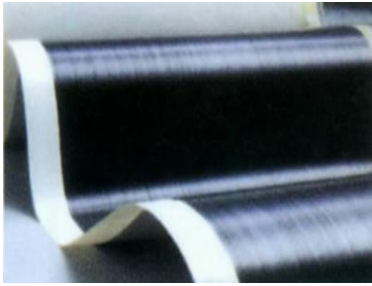
Figure 4.1: EXA FRAME



Source: Developed for the research

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Figure 4.2: Carbon Fibre Prepreg



Before Heat



After Heat

Source: EC21. (2017). *Prepreg carbon fibre fabrics* and Aurora Sport. (n.d.) *Prepreg carbon fibre motorcycle heat shield for Ducati in autoclave process.*

EXA FRAME is a carbon fibre panel designed by our own company, Flexible Sdn. Bhd. The frame is currently designed using carbon fibre prepreg with a range of 11” x 15” to 11.5” x 15.5” which able to fit most of the backpack sizes. The weight of this frame is around 300gram. It consists of four major parts, which are sternum strap, waist strap, the “X” layer and the GPS system which is a value-added feature attached with the waist strap.

EXA FRAME is created for primary children who are facing school bag overweight issues to prevent muscle injuries and immature growing body posture. In addition, EXA FRAME can save the cost of purchasing a new backpack that comes with features such as the waist strap and sternum strap. This is because existing bags of primary children can simply be attached onto the EXA FRAME. It provides the same features which are similar with those high cost backpacks. Besides, EXA FRAME is created in many designs to keep up with the fashion trend of primary children so that they get to choose their preferred backpack style and design.

Figure 4.3 Different Style of School Bag Carried by Primary Children



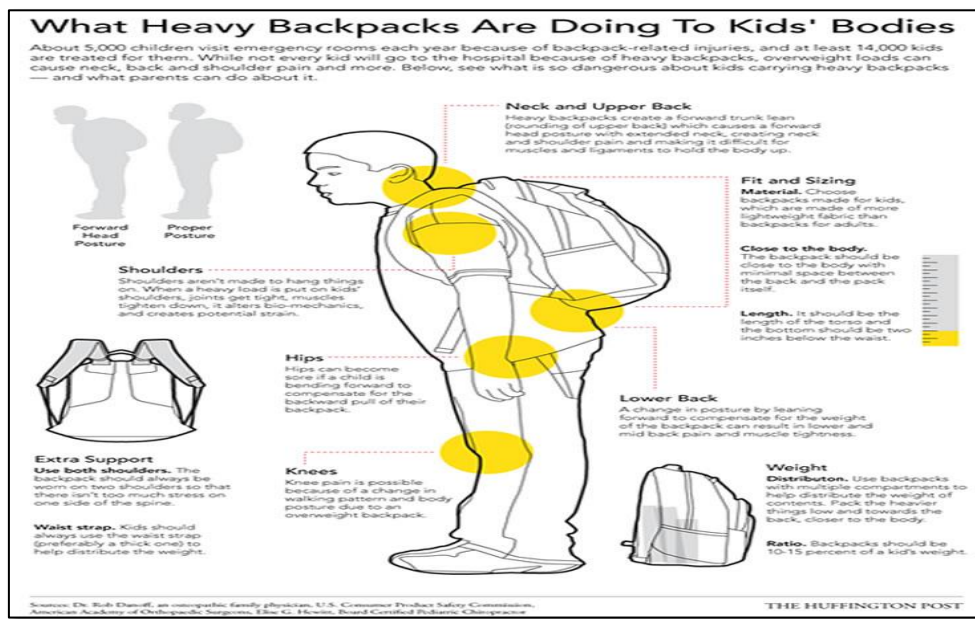
Source: Photo capture in primary school during conducting survey

Figure 4.4: EXA FRAME with Backpack



Source: Developed for the research

Figure 4.5: Body Parts will be Affected by Backpack Weight



Source: Samakow, J. (2014). *The dangers of heavy backpacks and how kids can wear them safety.*

b) Sternum Strap

Figure 4.6: Sternum Straps



Source: Developed for the research

The innovative sternum straps created by Flexible Sdn. Bhd. have innovated in a way that they wrap and stick onto the existing shoulder straps of a backpack. Primary children will be able to adjust the level of sternum straps to their comfort. The sternum straps are highly recommended by chiropractors Doctor Perabu of Wong Medical Centre and Doctor Lim of Tags Spine and Joint specialists from Ipoh, who mentioned shoulder straps with the sternum strap should be worn above individual's chest to provide a stable wearing and comfortableness.

From the interview with Doctor Perabu, he mentioned that the growth of body posture is strongly affected by the muscles. He continued to explain that the shoulder straps are not encouraged to wear too near or too close to the individual's surrounding neck to avoid getting their cervical muscles injured. Once injured, this will cause nerve problems, muscle will be stiff, spasm, tingling and burning sensation. The sternum straps on the other hand, connect and enable individuals to adjust the right distance between the shoulder straps that are being attached onto the backpack's shoulder straps. The sternum straps also play a role in keeping the shoulder straps in place and ensure they do not slide off the shoulders at any point.

### c) Waist Strap and Waist Strap Fitter

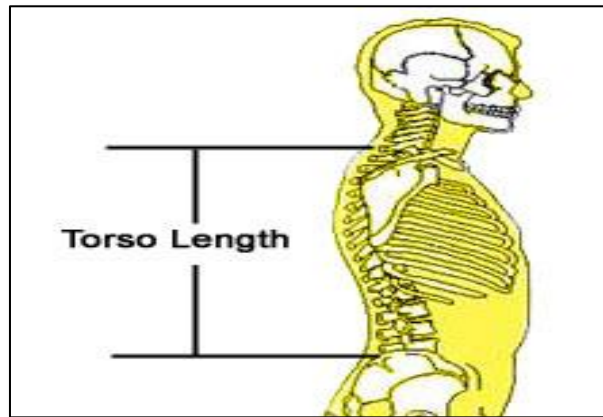
Figure 4.7: Waist Strap and Waist Strap Fitter



Source: Developed for the research

The function of the waist strap is to distribute the weight of backpacks and it is attached with the waist strap fitter. The waist strap fitter is allocated at the bottom level of the EXA FRAME. EXA FRAME can fit different torso lengths of primary children by adjusting the waist strap to different levels of the fitter. Torso lengths are measured from the 7<sup>th</sup> cervical vertebra (C7) down to the top of hip which is also known as iliac crest.

Figure 4.8: Torso Length



Source: Coaxsher. (2017). *Xvent technology*.

Based on the interview with Doctor Perabu, human's hip is stronger than the human's shoulders. He highly recommends having a waist strap to help distribute the weight pressure on one's shoulder to hip. Doctor Lim also mentioned that the idea of wearing backpacks should follow the individual's torso length so that primary children are wearing the backpacks in the right position. The EXA FRAME is designed with this purpose. Existing backpacks with only one torso length provided may bring harm to the individual in a sense that, if the torso length of the backpack is too short, this could harm their body posture.

d) "X" Layer

Figure 4.9: "X" Layer



Source: Developed for the research

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The 'X' layer is one of the best features of the EXA FRAME whereby it ties up existing backpacks to the EXA FRAME.

The "X" layer able fix the position of the existing backpacks to prevent swaying and to ease the pressure off primary children's shoulder when walking or running. This is because walking or running while carrying a backpack will exert more pressure on primary children's shoulders. Not only will this put pressure on their cervical muscles but also affect their body postures.

#### e) GPS Tracking System

Figure 4.10: GPS Tracking System



Source: Lazada. (2016). *Tracer GPS locater wallet key pet finder.*

GPS tracking system is the value-added feature of EXA FRAME. It is allocated inside the waist strap and functions as tracker to know the location and position of the primary children. Flexable decides to add this feature in as a means of preventing more children from going missing as reported in The Star that there are nearly 4000 Malaysian children went missing in 2014 and 2015 (Rahim, 2016). Another 567 cases of children went missing in 2016 (Bernama, 2016).

#### **4.1.2 Concept Testing**

To know whether EXA FRAME able to stand a portion in the market and compete with other backpack competitors, our group had distributed two different sets of survey questions, 300 units each to primary children and parents. The results show that majority of the primary children face school bag overweight issues (87.33%).

Besides, those who face back, shoulder or neck pain reach up to 72%. Furthermore, we learned that 37.04% of primary children took the initiative to make complaints about their heavy bags to their parents and teachers. These results show that they are aware of their heavy backpack issues.

To solve this problem, Flexible introduces EXA FRAME to the market and add value to the product by installing GPS tracking system to meet customers' expectations and maximize their satisfaction.

Other than that, Flexible recorded videos of potential customers regarding the effectiveness of EXA FRAME. There were more than 5 respondents who were willing to take turns in testing it. We also received positive results from parents who are willing to purchase EXA FRAME for the well-being of their primary children. This can be seen in one of our interviews with a parent that explained about an accident that happened on her child from carrying wheeled school bag. This resulted in that parent had to carry her child's school bag every day ever since. Apart from that, our idea for EXA FRAME also gained recognition from chiropractors Doctor Perabu of Wong Medical Centre and Doctor Lim of Tags Spine and Joint specialists from Ipoh, that it has the potential to prevent primary children from risks of heavy school bag.

## **4.2 Pricing Strategy**

### **4.2.1 Penetration Pricing Strategy**

To compete in the backpack industry and reach customer expectations, Flexible will be targeting those lower and middle average income segmentations who their primary children are facing backpack weight issues, prefer to use their existing backpacks and unable to afford those expensive ergonomic backpacks. Since Flexible is focused on B2B marketing, retail intermediaries will be the main



customers that will sell EXA FRAME to end customers. Flexible will need to use specific pricing strategy to gain win-win situation to help the company and retail chain to gain profits.

The price of EXA FRAME set by our company will be the perceived or estimated value to the customers. This creates an image in customers' mind that our product is worth the price. Flexible is using penetration pricing strategy which most new businesses use when launching a new product. Another reason is due to the fact that EXA FRAME is a seasonal product, which means there are peak selling periods in the first month of a year and/or the last few months in a year.

Penetration pricing strategy will help Flexible in increasing its market share as we introduce a new product. From Red Ocean to Blue Ocean strategy, differentiating our product with existing backpacks alone is not enough without setting the right price. It is important for Flexible to gain customer's attention and increase their awareness. Through penetration pricing strategy, Flexible will strive to influence end customers into trying out the EXA FRAME since backpacks are price sensitive products and most of the customers have many choices to select from in addition to price and quality followed by their preferences.

From our survey, 73% of parents who are willing to purchase products that may help solve their primary children's school bag weight problems are willing to spend as much as RM101 to RM151. EXA FRAME will be sold at RM60 to the B2B customers as shipping and packaging cost are included however we will recommend to our retailers to mark up the price at 30-35%. When the price is beyond customer's expectations, it may be able to attract more potential customers.

### **4.3 Channel Distribution**

Flexible's main channel is direct distribution channel. Flexible will seek marketing intermediaries who are retailers to introduce EXA FRAME in Peninsular Malaysia. As a start-up, only one product will be launched, so Flexible chose to focus on

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business-to-business (B2B) marketing. Flexible will appoint a third party logistics company- TASCOS Berhad to provide transportation services in sending the products to the retailers.

#### Research of the Local Stores in Peninsular Malaysia

Firstly, Flexible needs to do some research regarding the type of products that retailers offer in the past and current market of Peninsular Malaysia. The product offered by Flexible must be able to fit with the products that marketing intermediaries offer. It is recommended to choose those retailers who less promotes indirectly competing products such as backpacks with waist straps. Thus, it is important to get their opinions on product preferences in terms of the product's cost, features, styles, scalability or the level of comfort before Flexible sells the product to the retailers. Other than that, EXA FRAME is a niche product, which will only be provided in selected locations with high volume traffic of target customers. Retailers such as shopping mall or supermarket, book store and individual who sell school utility are highly recommended.

#### Demonstration of the EXA FRAME

There are a few ways to approach and convince retail intermediaries to promote company's products.

The demonstration of the EXA FRAME to retailers is a must for them to fully understand the usage and value of this product. Apart from that, the new product may represent a major risk for retailers. This is because they are incurring costs of buying, stocking and displaying the product. They may need to know the attractiveness of EXA FRAME before they can appeal to potential customers.

Flexible Sdn. Bhd. will prepare prototype for targeted customers to test. The different surveys and interviews that we have conducted with those customers who have the purchasing power and who tried the product may provide more detailed information for us to retailers to create strategies that are approachable to targeted

customers. The detail information included the functions of EXA FRAME, the proven statements verified by doctors and the warranty given by Flexible. After the demonstration of EXA FRAME, Flexible also needs to mention the selling price to retailers and the profits gained per unit. Both parties will have the opportunity to negotiate and achieve a win-win situation for long run operations.

### Company Website

Flexible will create a company website which acts as a platform that allows the customers to search for the related information. In this advanced age of knowledge and technology, B2B business is much easier to approach. This platform may provide opportunities for retailers who are interested to do business with Flexible to take the initiative to contact the company first.

## **4.4 Promotion and Advertising**

### **4.4.1 Promotions and Advertising**

As Flexible's main business is B2B marketing, there are some promotions and advertising strategies that can be used to increase the awareness among customers regarding the new product that is being introduced in the market.

#### **I. Exhibition**

The EXA FRAME can be promoted in different schools during parent- teacher meetings (PMT), open days, exhibitions and sport days. Flexible decided to design a bunting containing the details of the company as well as the EXA FRAME for ease of reference. It will be displayed in retailer chains or in schools.

Figure 4.11: Bunting of Flexible Sdn. Bhd.



Source: Developed for the research

## II. Social Media (Online Advertisement)

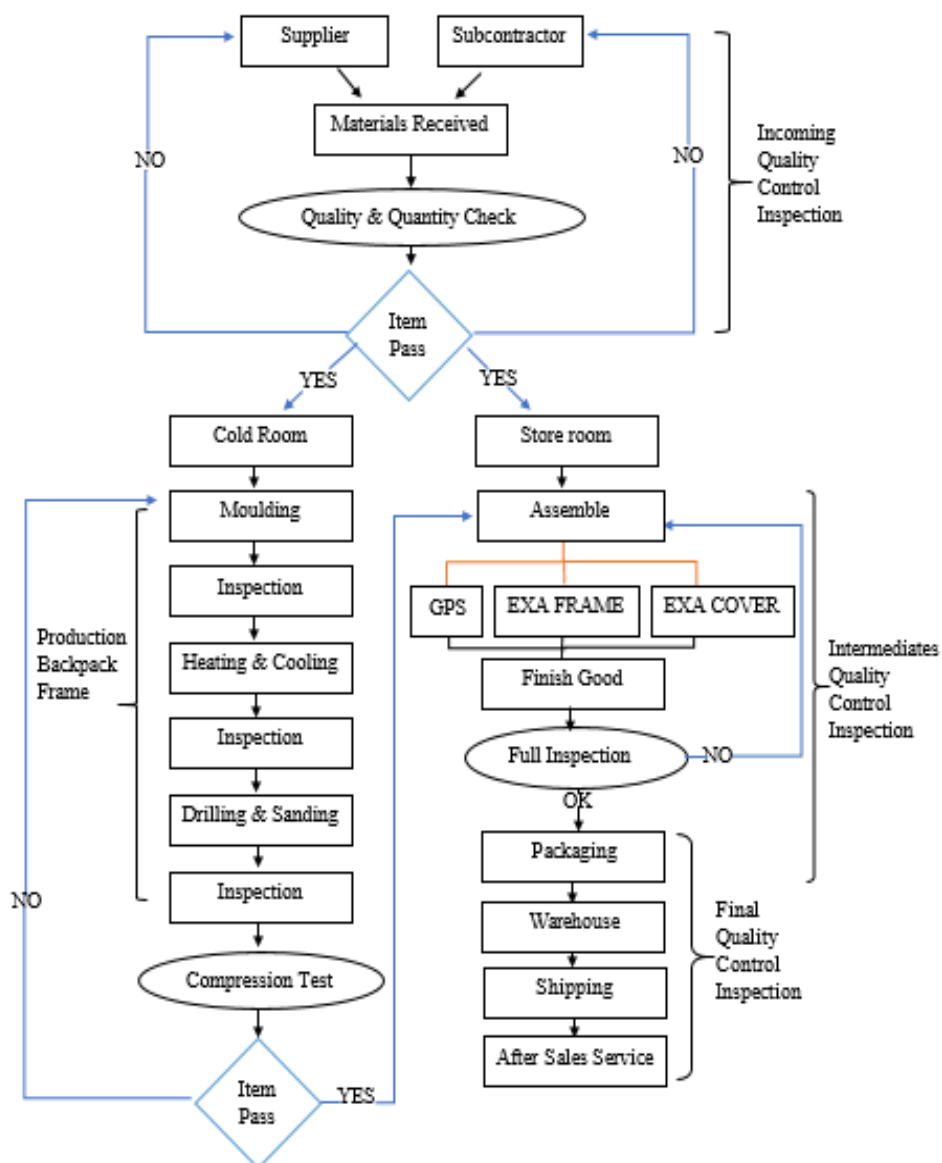
In this technological era, social media plays a significant role in helping companies pay less cost in promoting and approaching B2B customers in a much faster and easier way. In addition, social media may able to help companies increase end customers' awareness and position our product in their minds. Flexible will focus on social media platforms such as Facebook and the company's official website to promote and draw attention from the public regarding company new product.

1. Facebook page: It is named as Flexible Sdn. Bhd. where customers may gain latest information, content-type images and videos and promotions.
2. Company website: It works to establish network relationships, teaching the correct method of using our product, receive feedbacks from customers and assist consumers by providing prompt response.

## 5.0 PRODUCTION PLAN

### 5.1 Manufacturing Process

Figure 5.1: Manufacturing process flow



Source: Developed for the research

### **5.1.1 Subcontractor**

To ensure efficiency of production and cost saving, Flexible Sdn. Bhd. will have two subcontractors. One of the subcontractors will be responsible to provide raw material carbon fiber prepreg based on the size set by company. Another subcontractor will be responsible in sewing the EXA COVER which includes fabric and foam, sternum strap, waist strap, 'X' layer and product logo.

### **5.1.2 Manufacturing Process Flow**

Flexible Sdn. Bhd. will start the business by purchasing a fully Automated Moulding Machine to manufacturer our own backpack frame design, called the EXA FRAME. Flexible will use carbon fibre prepreg to produce the backpack frame due to its high strength and light in weight (after heating) features. Other materials such as Global Positioning System (GPS), moulding tools and packaging materials will be purchased from suppliers. Quality and quantity of raw materials from suppliers and subcontractors will be inspected before storing into incoming warehouse.

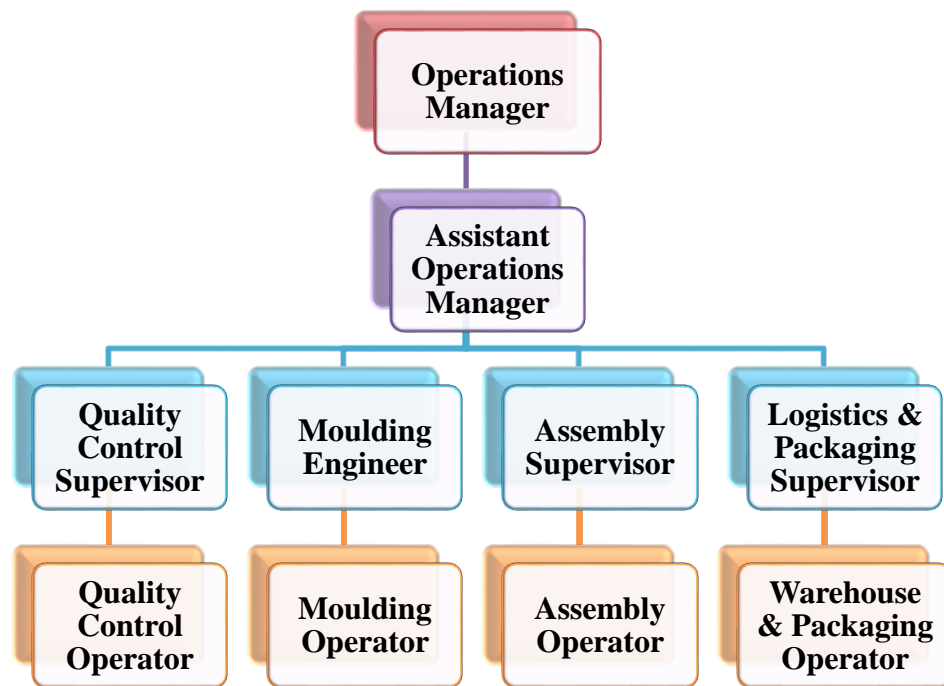
Flexible will hire a moulding engineer who specializes in to handing the moulding, heating and cooling, drilling and sanding process of carbon fibre prepreg. To enhance the quality of product, Quality Control department will inspect the quality of the frame done by the machine. If the quality is undesirable, the frame will be disposed while all the qualified frames will be sent to the assembly department when the quality is pass.

Next, in the assembly department, EXA FRAME will be assembled with the GPS and EXA COVER. Full inspection will be done upon completion of assembly. After this, the finished goods will be sent for packaging and sent to the finished goods. The finish good will send into finish good warehouse to wait for shipment. Additionally, TASCO Berhad will engage as our third party logistics (3PL) to cover our transportation to the customers throughout the Peninsular Malaysia.

## 5.2 Availability of Qualified Labour Pool

Labour is important to support the operations of the company. Flexible will cooperate with Mega Staff Sdn. Bhd. which is a recruitment agency that supplies foreign workers for assembly operators based on the production level every month. The responsibilities and requirements will be shown in the table below.

Figure 5.2: Requirements for Qualified Labour Pool in Flexible Sdn. Bhd.



Source: Developed for the research

The manufacturing production will be in charged by Flexible's Operation Manager, Ms. Wong Fong Theng.

Table 5.1: Requirement Labour Pool of Flexible Sdn. Bhd.

No.	Job Title	Unit(s) Required	Status
1.	<p><b>Assistant Operations Manager</b></p> <p><b>Job Responsibilities:</b></p> <ul style="list-style-type: none"> <li>➤ Assist Operations Manager in managing the production, quality control and assembly operations.</li> <li>➤ Organise and plan resources to meet quality, production schedules and productivity targets.</li> <li>➤ Ensure company's quality management system and objectives are met and maintained.</li> <li>➤ Resolve problems which relate to product quality, customer complaints, internal failures and assembly operations.</li> <li>➤ Communicate and maintain up-to-date correspondence with relevant customer's personnel pertaining to product quality issues.</li> </ul> <p><b>Job Requirements:</b></p> <ul style="list-style-type: none"> <li>➤ Possess a minimum of Bachelor's Degree or Diploma in related field.</li> <li>➤ Minimum 5 years working experience in related field.</li> <li>➤ Minimum 3 years of supervisor experience.</li> <li>➤ Skills required: good communication skills, organizational skills, leadership and interpersonal skills, advanced computer skills and analytical skills.</li> </ul>	1	Skilled



	<ul style="list-style-type: none"> <li>➤ Excellent organizational skills and the ability to manage multiple tasks simultaneously.</li> <li>➤ Required Language(s): English, Bahasa Malaysia, Chinese</li> </ul>		
2.	<p><b>Logistics and Packaging Supervisor</b></p> <p><b>Job Responsibilities:</b></p> <ul style="list-style-type: none"> <li>➤ Ensure daily Logistics and operational goals inclusive of Shipping functions and Inventory Management.</li> <li>➤ Effective and timely implementation of all Lead training, hiring, career development and enrichment of all department associates.</li> <li>➤ Support inventory management consisting of reconciling and maintaining of finished goods inventory by SKU along with lot date at 3PL warehouse locations.</li> <li>➤ Negotiate and support logistics costs meant for 3PL party logistics providers assisting yearly budget goals.</li> <li>➤ Support simplification and standardization of processes to accelerate logistics and enhance efficiencies.</li> </ul> <p><b>Job Requirements:</b></p> <ul style="list-style-type: none"> <li>➤ Possess minimum of Bachelor's Degree or Diploma in related field.</li> <li>➤ Demonstrates solid understanding and knowledge of Supply Chain</li> </ul>	1	Skilled

	<ul style="list-style-type: none"> <li>➤ Skills required: Leadership and interpersonal skills, advanced computer skills and analytical skills.</li> <li>➤ Transportation regulations experience and Bulk experience preferred.</li> <li>➤ Minimum 3 years of working experience in related field and 3 years in supervisor experience.</li> <li>➤ Required Language(s): English, Bahasa Malaysia, Chinese</li> </ul>		
3.	<p><b>Moulding Engineer</b></p> <p><b>Job Responsibilities</b></p> <ul style="list-style-type: none"> <li>➤ Maintain stable production processes and product quality, new process development, process optimization, continuous improvement, data collection and analysis.</li> <li>➤ Operations involved control the moulding machine, check the heating temperature, drilling process and maintenance.</li> <li>➤ Interface with all levels and departments of plant as well as operators, supervision, and maintenance personnel to complete assigned tasks.</li> </ul> <p><b>Job Requirements:</b></p> <ul style="list-style-type: none"> <li>➤ Minimum Bachelor's Degree or Diploma in Engineering.</li> <li>➤ Minimum 3 to 5 years working experience in related field.</li> </ul>	1	Skilled

	<ul style="list-style-type: none"> <li>➤ Excellent organizational skills, advanced computer skill and the ability to manage multiple tasks simultaneously.</li> <li>➤ Moulding Certification is necessary.</li> <li>➤ Required Language(s): English, Bahasa Malaysia, Chinese</li> </ul>		
4.	<p><b>Moulding Operator</b></p> <p><b>Job Responsibilities:</b></p> <ul style="list-style-type: none"> <li>➤ Resolves engineering problems by collecting and analysing information.</li> <li>➤ Assist in carbon fibre prepreg material preparation, production and other process.</li> <li>➤ Keeps supplies ready by placing orders; inventorying stock; verifying receipt.</li> <li>➤ Able to follow the task given.</li> </ul> <p><b>Job Requirements:</b></p> <ul style="list-style-type: none"> <li>➤ Minimum Bachelor's Degree or Diploma in Engineering.</li> <li>➤ Minimum 1 to 3 years working experience in related field.</li> <li>➤ Time management, team player and able to work under pressure, advanced computer skills.</li> <li>➤ Moulding Certification is necessary.</li> <li>➤ Required Language(s): English, Bahasa Malaysia, Chinese</li> </ul>	2	Semi-Skilled
5.	<p><b>Quality Control Supervisor</b></p> <p><b>Job Responsibilities:</b></p> <ul style="list-style-type: none"> <li>➤ Oversees inspection and testing of materials, parts, and products to ensure</li> </ul>	1	Skilled

	<p>adherence to established standards of strength, quality, and endurance.</p> <ul style="list-style-type: none"> <li>➤ Responsible for day-to-day mechanical operations and compression test equipment to check apparatus for conformance to standard requirements.</li> </ul> <p><b>Job Requirements:</b></p> <ul style="list-style-type: none"> <li>➤ Minimum Bachelor’s Degree or Diploma in related field.</li> <li>➤ Minimum 3 years working experience in related field.</li> <li>➤ Minimum 3 years in supervisor experience.</li> <li>➤ Excellent organizational skills, advanced computer skills and the ability to manage multiple tasks simultaneously.</li> <li>➤ Quality Management System ISO 9001:2015 and Environment Management System ISO 14001:2015 certification is necessary.</li> <li>➤ Required Language(s): English, Bahasa Malaysia, Chinese</li> </ul>		
7.	<p><b>Quality Control Operator</b></p> <p><b>Job Responsibilities:</b></p> <ul style="list-style-type: none"> <li>➤ Routinely perform quality control release testing of incoming materials from suppliers and subcontractors.</li> <li>➤ Compliance with Standard Operating Procedures, Specifications and Good Manufacturing Practices must be met.</li> </ul>	1	Semi-Skilled

	<ul style="list-style-type: none"> <li>➤ Assist in three step quality control which are incoming, intermediates and final quality control inspection.</li> </ul> <p><b>Job Requirements:</b></p> <ul style="list-style-type: none"> <li>➤ Minimum Bachelor's Degree or Diploma in relate field.</li> <li>➤ Minimum 1 years working experience in related field.</li> <li>➤ Time management, team player, advanced computer skills and able to work under pressure.</li> <li>➤ Quality Management System ISO 9001:2015 and Environment Management System ISO 14001:2015 certification is necessary.</li> <li>➤ Required Language: English, Bahasa Malaysia, Chinese</li> </ul>		
8.	<p><b>Assembly Supervisor</b></p> <p><b>Job Responsibilities:</b></p> <ul style="list-style-type: none"> <li>➤ Responsible for organizing, planning, and coordinating plant assembly activities.</li> <li>➤ Report to the operations manager and provide them with detailed information about the daily production, quality, sales, engineering, and shipments.</li> <li>➤ Training the assemblers and providing them with adequate knowledge about the process and allotting the new employees their work places.</li> <li>➤ Educating the employees about the organization's rules and regulations.</li> </ul>	1	Skilled

	<ul style="list-style-type: none"> <li>➤ Motivating the employees in achieving the production goals and targets</li> <li>➤ Taking important measures on employee safety issues.</li> <li>➤ Communicating with the employees to understand their problems and make necessary changes.</li> </ul> <p><b>Job Requirements:</b></p> <ul style="list-style-type: none"> <li>➤ Possess at least Sijil Pelajaran Malaysia (SPM).</li> <li>➤ Minimum 3 years ample experience of the assembling process.</li> <li>➤ Minimum 3 years in supervisor experience.</li> <li>➤ Time management, advanced computer skills, team player and able to work under pressure.</li> <li>➤ Required Language(s): English, Bahasa Malaysia, Chinese</li> </ul>		
9.	<p><b>Assembly Operator</b></p> <p><b>Job Responsibilities:</b></p> <ul style="list-style-type: none"> <li>➤ Assemble GPS, EXA FRAME and EXA COVER.</li> <li>➤ Responsible for completing daily targets, which are often checked by the assembly supervisor.</li> <li>➤ Other duties as may be assigned.</li> </ul> <p><b>Job Requirements:</b></p> <ul style="list-style-type: none"> <li>➤ Good attention to details and follows instructions.</li> <li>➤ Maintains a good work efficiency level.</li> </ul>	Part-Time	Not Skilled

	<ul style="list-style-type: none"> <li>➤ Assimilates new information quickly.</li> <li>➤ Team player and able to work under pressure.</li> <li>➤ Fresh-graduate or no experience is acceptable.</li> </ul>		
10.	<p><b>Warehouse and Packaging Operator</b></p> <p><b>Job Responsibilities:</b></p> <ul style="list-style-type: none"> <li>➤ Receive materials and arrange systematically into the storeroom and cold room.</li> <li>➤ Keep inventory record clear and systematic.</li> <li>➤ Loading of goods with hand pallet.</li> <li>➤ Arrange the finished good into warehouse.</li> <li>➤ Assist in shipping process and carrying stock.</li> <li>➤ Clean work area.</li> <li>➤ Other duties as may be assigned.</li> </ul> <p><b>Job Requirements:</b></p> <ul style="list-style-type: none"> <li>➤ Ability to work accurately and methodically.</li> <li>➤ Good attention to details and follows instructions.</li> <li>➤ Maintains a good work efficiency level.</li> <li>➤ Team Player and able to work under pressure.</li> <li>➤ Aware of Dangerous Goods Handling and aviation security</li> </ul>	2	Semi-Skilled

Source: Developed for the research

### 5.3 Physical Plant

#### Factory and Office Location:

Lorong Bemban 3,  
31000 Batu Gajah,  
Perak Dahrul Ridzuan,  
Malaysia.

#### Operation Hours:

Monday - Friday : 9.00 a.m. – 6.00 p.m.  
Saturday : 9.00 a.m. – 1.00 p.m.  
Sunday & PH : Closed  
Lunch Hour : 1.00 p.m. - 2.00 p.m.

\*PH (Public Holiday)

#### 5.3.1 Location

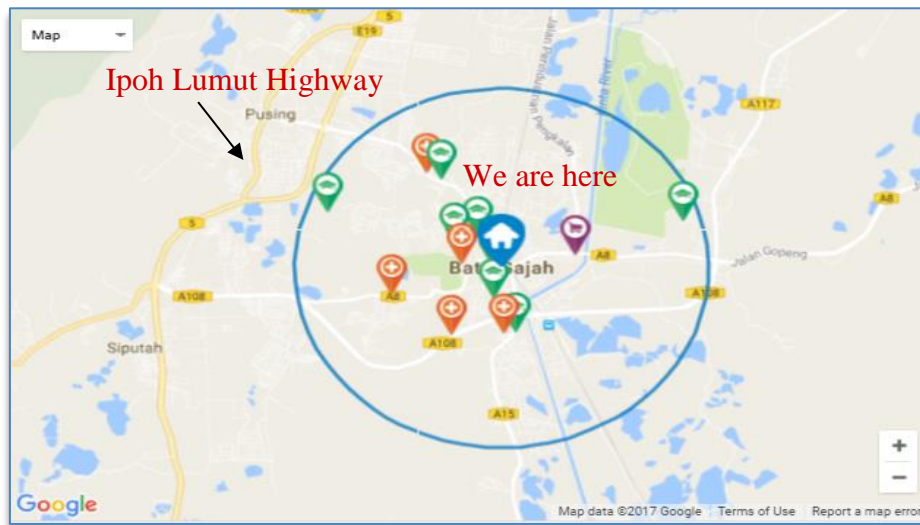
Table 5.2: Comparison between rental prices from different areas

No.	Location	Size (sq ft)	Market Price (RM)	Price Per Square Feet (RM)
1.	Taman Perindustrian Oug (Puchong)	2000	4,200.00	2.10
2.	Hitech 6 (Semenyih)	5500	5,000.00	0.91
3.	Batu Gajah, Bemban 3 (Perak)	4800	3,500.00	0.72
4.	Green Technology Factory 69 S2 (Negeri Sembilan)	3493	3,500.00	1.00
5.	Green Technology Park (Seremban)	2620	2,500.00	0.95
6.	Eco Business Park 1 (Johor Bahru)	4878	4,900.00	1.00
7.	Juru, Iks Juru (Penang)	4230	5,000.00	1.18
8.	Kawasan Industri Permatang Tinggi (Penang)	6500	9,000.00	1.38

Source: Land & Property. (2016). *Batu Gajah, Bemban 3, Perak.*



Figure 5.3: Location of Flexible Sdn. Bhd.



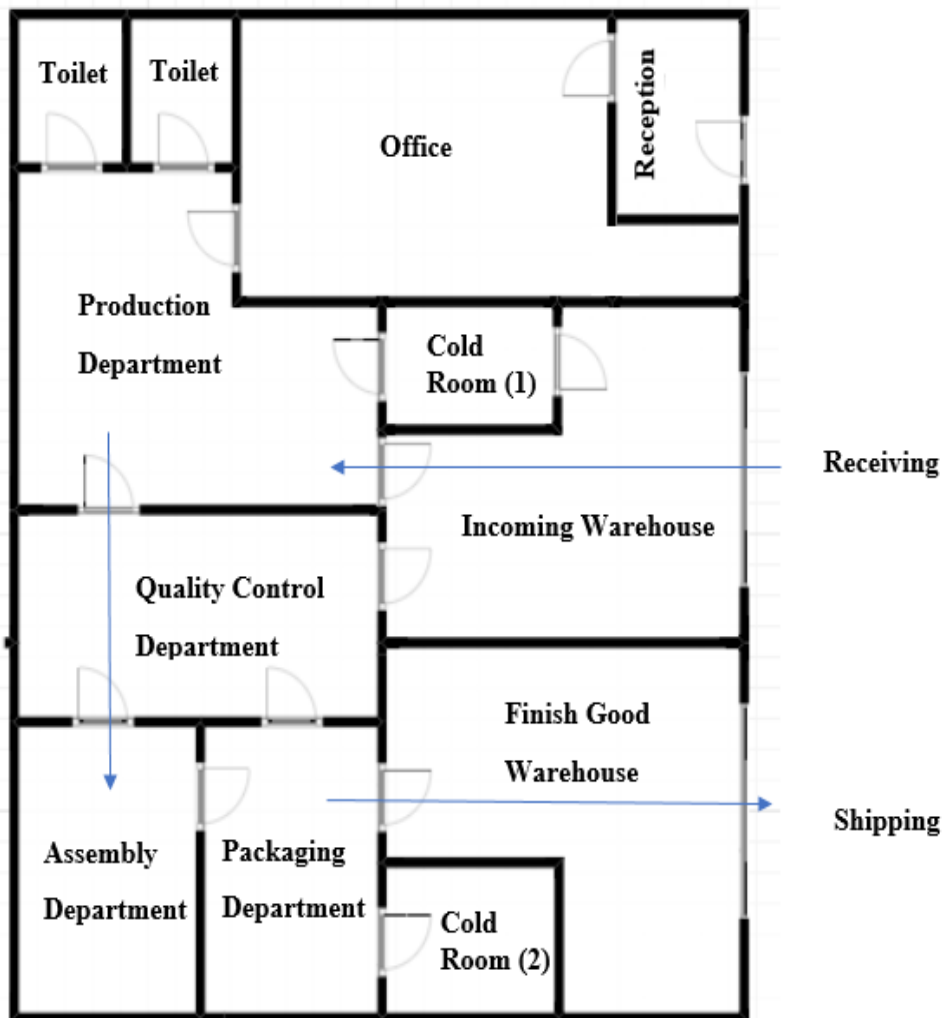
Source: Land & Property. (2016). *Batu Gajah, Bemban 3, Perak*.

To find a suitable place to start the business, Flexible Sdn. Bhd. compare a few possible places by calculating the price per square feet. The results showed that, Batu Gajah, Bemban 3 is the most suitable place because the price is more reasonable and cheaper than other industrial areas as shown in Table 5.2. Another reason is because Batu Gajah has a new four-lane highway that connects to the Ipoh-Lumut Highway at Seputeh and ties to the North-South Expressway at Gopeng (The Edge Property, 2017). This strategic place brings convenience for Flexible to send stocks throughout Peninsular Malaysia and receive stocks from suppliers and subcontractors more efficiently.

### 5.3.2 Layout

Flexible Sdn. Bhd. is adopted work cell layout for the manufacturing plant to eliminate waste and increase the work load of employees. For the Office area, company uses the open office layout because it can benefit the business economically by reducing costs tied to construction, utilities and office equipment. It can also enhance the flow of information and teamwork (Shari, 2017).

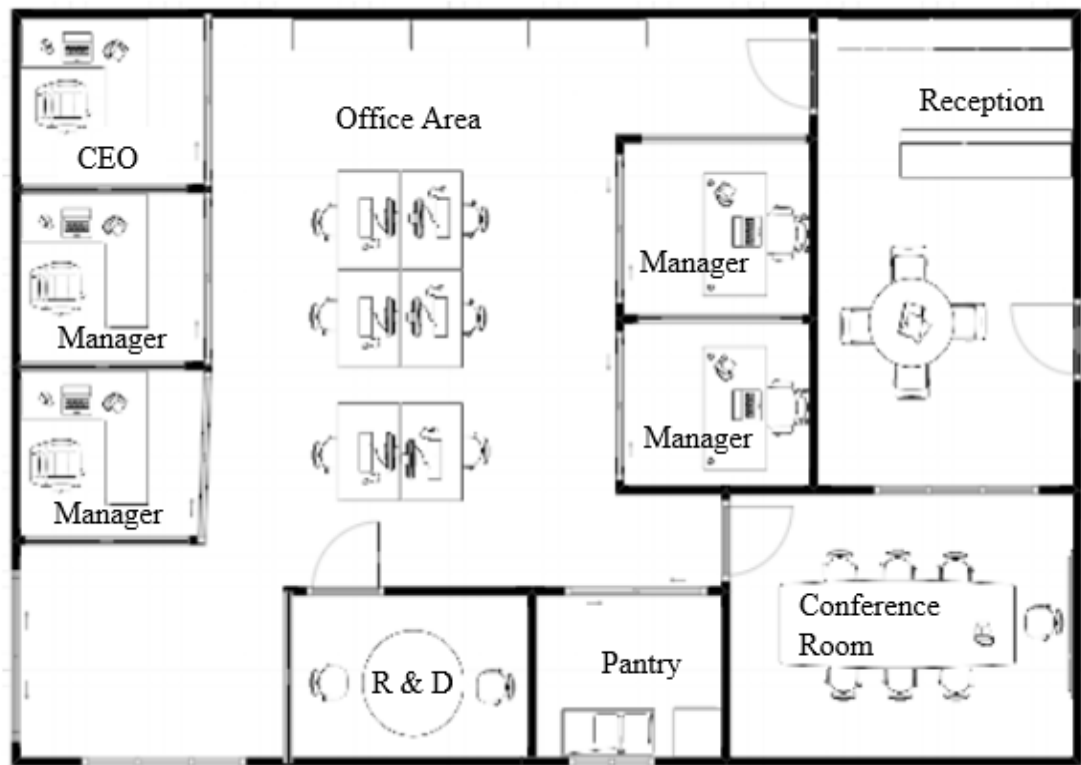
Figure 5.4: Flexible Floor Plant (Single Storey)



Source: Developed for the research

Incoming Warehouse will stock raw materials from suppliers and the components from subcontractors. But the carbon fibre prepreg and GPS will be sent to Cold room (1) & (2) respectively to increase the shelf life. Finished Goods Warehouse will stock the finished goods that have been packaged and ready for sale.

Figure 5.5: Flexible Office Area (2D and 3D)



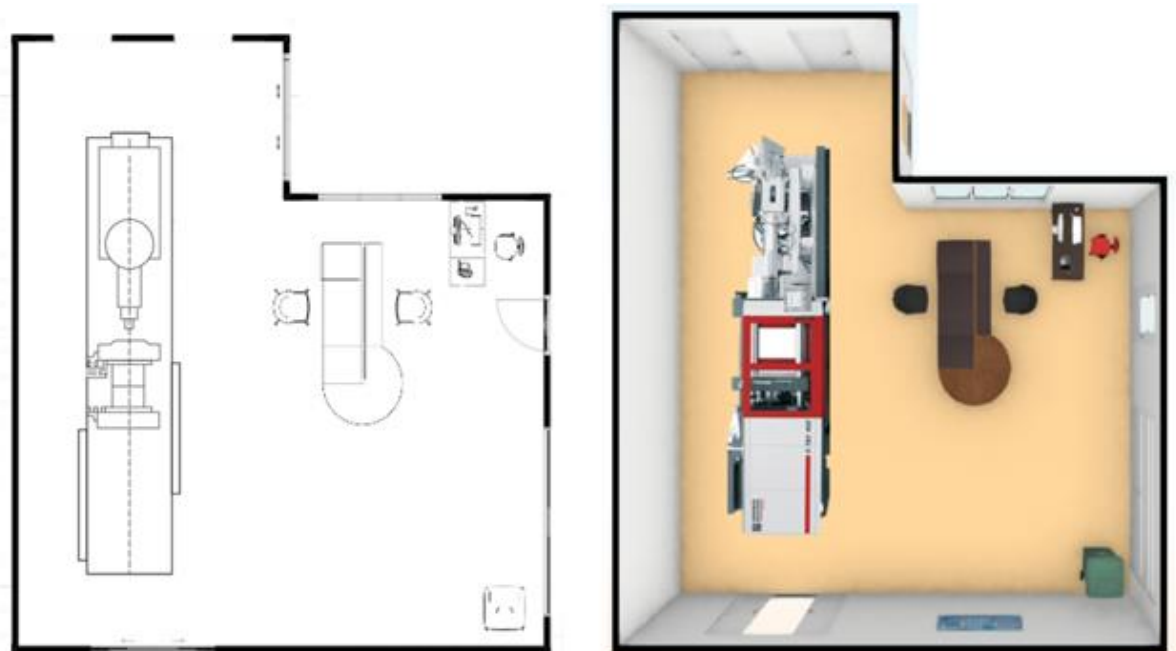
Source: Developed for the research

Figure 5.6: Toilet Area (2D and 3D)



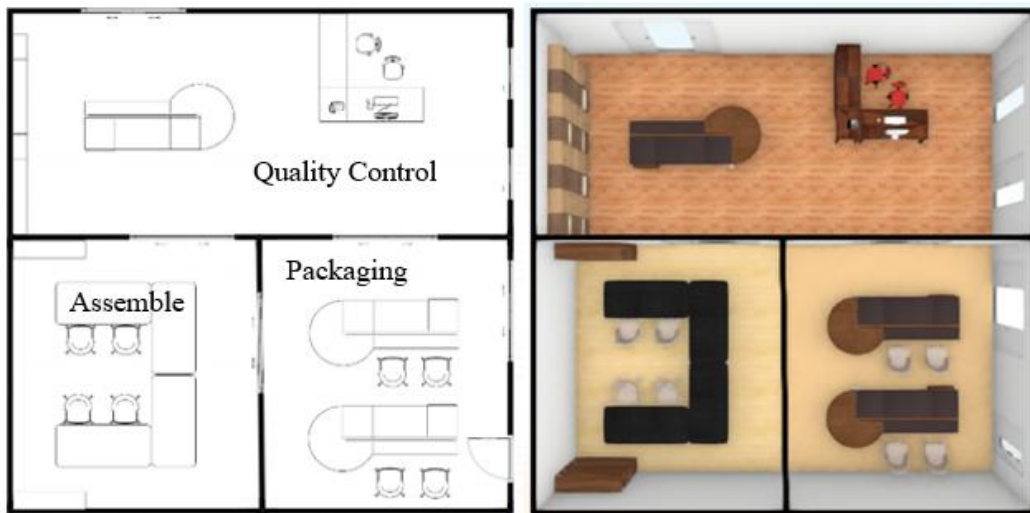
Source: Developed for the research

Figure 5.7: Production Department (2D and 3D)



Source: Developed for the research

Figure 5.8: Quality Control, Assembly and Packaging Department (2D and 3D)



Source: Developed for the research

Figure 5.9: Incoming Warehouse and Finish Good Warehouse (2D and 3D)



Source: Developed for the research

## 5.4 Machineries and Equipment

### 5.4.1 Operation Cost

Table 5.3: Operation Cost for Flexible Sdn. Bhd.

No.	Item	Quantity (unit)	Price (RM)	Total
1.	Business Registration	-	60.00	60.00
2.	Company name registration fee (Sdn. Bhd.)	-	30.00	30.00
3.	Patent Registration Fee	-	3,370.00	3,370.00
4.	Trademark Registration fee	-	1,760.00	1,760.00
5.	Rental (Deposit)	2 Months	3,500.00	7,000.00
6.	Renovation	1	50,000.00	50,000.00
7.	Construction Cost for Cold Room		8,000.00	8,000.00
8.	Internet Modem	1	60.00	60.00
9.	Telephone and Internet (Deposit)	2 Month	120.00	240.00
10.	Security (CCTV and Alarm System)	1	1,200.00	1,200.00
11.	Business card	1000	0.10	100.00
12.	Thumbprint machine	1	150.00	150.00
13.	Fire extinguisher	10	70.00	700.00
14.	First Aid Kit	5 Set	30.00	150.00
15.	Steel Lockers	4	250.00	1,000.00
16.	Office Cupboard	15	200.00	3,000.00
17.	Office Table	15	120.00	1,800.00
18.	Work Table	7	80.00	560.00
19.	Conference Table	1	600.00	600.00
20.	Work Chair	20	20.00	400.00
21.	Office Chair	15	120.00	1,800.00

22.	Executive Chair	5	300.00	1,500.00
23.	Conference Chair	10	100.00	1,000.00
24.	Desktop Computer	10	1,000.00	10,000.00
25.	Laptop	5	1,200.00	6,000.00
26.	Reception Counter	1	250.00	250.00
27.	Recycle bin	2	30.00	60.00
28.	Dustbin	15	2.00	30.00
29.	Office Phone	16	20.00	320.00
30.	Stationery	One Lump-sum	200.00	200.00
31.	Water Dispenser	2	80.00	160.00
32.	Refrigerator	1	400.00	400.00
33.	Kitchen Cabinet	1	350.00	350.00
34.	Uniform (T-shirt)	80	18.00	1,440.00
35.	Hand Pallet	2	220.00	440.00
36.	Storage Rack (Medium)	20	200.00	4,000.00
37.	Forklift (Lease)	1	200.00	200.00
38.	All in one Photocopy Machine (Lease)	1	200.00	200.00
39.	Projector	1	280.00	280.00
40.	Projector Screen	1	180.00	180.00

Source: Developed for the research

#### 5.4.2 Production Material and Equipment

##### I. Machine Cost

Table 5.4: Cost of Machines Involved in Production

No	Item	Quantity (unit)	Price per unit (RM)	Total (RM)
1.	Fully Automated Moulding Machine	1	280,000.00	280,000.00

Source: Developed for the research

Fully Automated Moulding Machine has different functions which involve compress the mould, heating and cooling, drilling and sanding, and compression testing process.

## II. Tools

Table 5.5: Tools Involved in Production

No	Item	Price per unit (RM)
1.	Thermosetting Resin (Per Kg)	8.00
2.	Mould Release (Per Kg)	8.00
3.	Hand Tools (Scissors, Cutters, and Knives)	40.00
4.	Cotton Glove	6.00
5.	Pallet	10.00
6.	Carton Box	1.00
7.	Stretch Film (Roll)	5.00
8.	Plastic Packaging	0.05
9.	Carton Sealing Tape (Roll)	2.00

Source: Developed for the research

## III. Material

Table 5.6: Material Involved in Production

No	Item	Price per unit (RM)
1.	Global Positioning System (GPS)	8.00

Source: Developed for the research

Cost of Flexible's production is purchased in bulk so that it will cheaper than market price. Cost per unit of EXA FRAME: RM 8.00 (GPS) + RM 5.00 (Carbon fibre prepreg from subcontractor) + RM 13.00 (EXA COVER from Subcontractor) = RM26.00 per unit.



## 5.5 Name of Suppliers and Subcontractors

### 5.5.1 Suppliers

Table 5.7: Name of Suppliers of Raw Materials

No.	Materials	Company Name
1.	Global Positioning System (GPS)	<b>JA SECURITY INNOVATIONS</b> Address: NO. 3-2, Jalan KP 1/8, Kajang Prima, 43000 Kajang, Selangor Darul Ehsan Malaysia. Phone: +6017-2993111
2.	Carton Box	<b>Unipackaging Industries Sdn Bhd</b> Address: No. 10-16, Jalan P2/17, Sek. 2, Bandar Teknologi Kajang, Off Jalan Semenyih, 43500 Kajang, Selangor Darul Ehsan. Phone: +603-8723 3366 / +603 8723 2130 / +603 8723 2130 Fax: +603-8723 2266 Email: alpacsolution@gmail.com
3.	Tools for Moulding (Thermosetting Resin, Mould Release)	<b>ASACHEM (M) Sdn Bhd</b> Address: No 3, First Floor, Jalan Seksyen 3/8, Kajang Utama, 43000 Kajang, Selangor, Malaysia. Phone: +603-8734 5998 Fax: +603-8737 6598 Email: info@asachem.com
4.	Cotton Glove	<b>Goodtrade Entreprise Sdn Bhd</b> Address: Lot 6202-B, Jalan Kempas Kanan, Kg. Perepat, Batu 8 1/2 Jalan Kapar, 42000 Kapar, Selangor, Malaysia. Phone: +603-3250 0555 Fax: +603-3250 6269 Email: goodtrade555@gmail.com

5.	Plastic Packaging and Stretch Film	<p><b>TS Plastics Sdn. Bhd.</b></p> <p>Address: PT30130 &amp; PT30131, Off Jalan Johan 2/1A, Estet Perindustrian Pengkalan II, 31550, Pusing, Perak, Malaysia.</p> <p>Phone: 05-365 2899</p> <p>Fax: 05-366 1899</p> <p>Email: tsplastics@gmail.com</p>
6.	Carton Sealing Tape	<p><b>ZTEC Resource Sdn Bhd</b></p> <p>Address: No.3, Lot 11131, Jalan MU1/6R, Seksyen 7, Taman Perindustrian Meranti Utama, 47120 Puchong, Selangor, Malaysia.</p> <p>Phone: +603-8066 8436</p> <p>Fax: +603-8052 2175 / +603-8066 8432</p> <p>Email: ztecresources@gmail.com</p>
7.	Pallet	<p><b>SC Wooden Products Manufacturing Sdn. Bhd.</b></p> <p>Address: Lot. 30444, Jalan Sellatheven, Batu 4, Kg. Jawa Beg Berkunci 2035, 41990 Klang, Selangor D.E. Malaysia</p> <p>Phone: +603-5162 4633</p> <p>Fax: +603-5162 4636</p> <p>Email: enquiry@scwooden.com</p>

Source: Developed for the research

### 5.5.2 Subcontractors

Table 5.8: Name of Subcontractors

No.	Materials	Company Name
1.	EXA COVER	<p><b>Cheng Fong Sheng Sdn Bhd</b></p> <p>Address: 60-62, Jalan PBS 14/11, Kawasan Perindustrian Bukit Serdang, Seri Kembangan, 43300 Seri Kembangan, Selangor.</p>

		Phone: +603-8941 8700 Fax: +603-8941 3725 Email: chenfg88@gmail.com
2.	Carbon Fibre Prepreg (Cutted)	<b>Hexcel Composites Sdn Bhd Wisma Samudra</b> Address: 1, Jalan Kontraktor U1/14, Hicom-glenmarie Industrial Park, 40150 Shah Alam, Selangor, Malaysia Phone: +603-5569 3510

Source: Developed for the research

### 5.5.3 Machine Supplier

Table 5.9: Name of Machine Supplier

No.	Item.	Company Name
1.	Fully Automated Moulding Machine	<b>WY Machinery Trading (KL) Sdn Bhd</b> Address: No.43, Jalan Meranti Jaya 8, Meranti Jaya Industrial Park, 47100 Puchong, Selangor, Malaysia.

Source: Developed for the research

## 5.6 Quality Control

Quality Control Process Flow Please Refer to Figure 5.1

### 5.6.1 Quality Circles

Flexible will apply quality circle (QC) to handle the quality of the whole company including raw materials, production and the finished goods. To ensure efficient flow of quality control, Flexible will form a team of 5 members to define and solve the

quality and performance related problems. In the quality circle, 3 steps of method of inspection will be used, namely Incoming Quality Control Inspection (IQC), Intermediate Quality Control Inspection (IPQC), and Final Quality Control Inspection (OQC).

### **5.6.2 Incoming Quality Control Inspection (IQC)**

In the incoming quality control inspection, Flexible will inspect raw materials to ensure no defective components are used in the production. Quality and quantity of raw materials will be checked by visual test and material certificate in all phases of production. If defects had been found, company will return them back to the suppliers or subcontractors. Non-defective materials will be sent to the incoming warehouse based on the place arrangement except the carbon fibre prepreg which will be sent to Cold Room (1) to store and wait for manufacture. To extend the shelf life of prepreg, it will be freeze below 0 °F (Advanced Composite Materials, 2017). In addition, GPS will be sent to Cold Room (2) to maintain at room temperature to avoid the battery life drainage from hot temperature.

### **5.6.3 Intermediate Quality Control Inspection (IPQC)**

Visual test and strength test are conducted in Intermediate Quality Control Inspection process. Kanban methodology will be used to inspect. As the machine sends the frame to the testing section, the supervisor will control the strength and check again before sending it to the next department. Throughout this testing, the weaknesses of the product can be found. This process can be improved to produce better quality of product and avoid failures. Next, in the assembly department, each component will be checked by Quality Control department after assembly. When all parts are approved, it will be sent to the packaging department. When the methodology Kanban in all phases of production are done, the product will be passed to next process.

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#### **5.6.4 Final Quality Control Inspection (OQC).**

Before products are kept into warehouse, the final inspection will be done. The packaging department will send the product to Quality Control department to check the overall quality. After the quality is assured, the finish products will be sent to the warehouse. This can ensure that all products meet customer's expectations. Furthermore, Flexible will provide one year warranty for end customers which will be effective from the date of purchase. Each product will be attached with the warranty card. Any defect or damages can be replaced by returning them to retailers with terms and conditions applied within the year of warranty. This will establish good corporate reputation and help increase customers' confidence towards our products.

#### **5.6.5 International Organization for Standardization (ISO)**

Flexible is planning to apply Quality Management System ISO 9001: 2015 and Environment Management System ISO 14001:2015 in the second year to ensure the quality of the EXA FRAME. ISO 9001 is the international standard that specifies requirements for a quality management system (QMS). ISO 9001 is based on the plan-do-check-act methodology and Kanban methodology and provides a process-oriented approach to documenting and reviewing the structure, responsibilities, and procedures required to achieve effective quality management in an organization. Adopting ISO 9001 may help organizations ensure their customers consistently receive high quality products, which in turn brings many benefits, including satisfied customers, management, and employees (ASQ, 2017).

ISO 14001: 2015 is intended to manage its environmental responsibilities in a systematic manner that contributes to the environmental pillar of sustainability. In addition, ISO 14001: 2015 also helps an organization achieve the intended outcomes of its environmental management system, which provides value for the environment, the organization itself and interested parties. Lastly, ISO 14001: 2015

can provide assurance to company management and employees as well as external stakeholders that environmental impact is being measured and improved.

### **5.6.6 Machinery Checking and Maintenances**

Machinery is the one of the important parts in manufacturing. Flexable will conduct routine preventive maintenances to ensure that all machineries are in well condition. If the machineries and equipment are not in good condition, it will surely affect the efficient operation and production process. Hence, regular checking and maintenance of equipment will help to produce good quality of products.

## **5.7 Customer Support**

Better customer service starts with better communication and collaboration. In the B2B environment, customer support is important in customer engagement and retention. To fulfil customer satisfactions, company will provide diversification of support for the B2B customer.

### **5.7.1 Company's Website**

Official website plays an important role as a platform for customers to get the latest information of products easily. All the detailed information is displayed clearly on Flexable's official website (<https://flexablecompany.wixsite.com/flexible>) which includes company address (Lorong Bemban 3, 31000 Batu Gajah, Perak, Malaysia), and the communication channel which is company's e-mail ([flexablecompany@gmail.com](mailto:flexablecompany@gmail.com)), contact number (05-3667788) and toll-free service (1-800-777-468) to stay in touch with customer.

Besides, to satisfy customers and solve their problems, Flexable will add in a demonstration video as well as Q&A and feedback section for customers. Through

this way, customers will be understanding and more reliable towards our company and will be willing to purchase our products. Therefore, the company's relationship with customers can be maintained in a long run.

### **5.7.2 Social Network**

Flexible will also create a social network page via Facebook (<https://www.facebook.com/Flexible-Sdn-Bhd-328193544290091/>) as another platform for customers to communicate and discuss about the products among each other. A social network will join customers who have the same interests and create more awareness about our product by sharing the latest information. Lastly, customers can directly contact the company's contact number or toll-free service or Facebook page.

## 6.0 MANAGEMENT TEAM

### 6.1 Management Team

Figure 6.1: Management Team of Flexible Sdn. Bhd.



Source: Developed for the research

#### 6.1.1 Chief Executive Officer (CEO)

Mr. Loh Zhang Chee is the Chief Executive Officer of Flexible Sdn. Bhd.. As Flexible’s CEO, Mr. Loh has the responsibilities of setting the vision, mission and business objectives of company as well as guiding the staffs to accomplish the company’s goals.



Mr. Loh is a graduate of Bachelor of Business Administration (HONS) Entrepreneurship from Universiti Tunku Abdul Rahman (UTAR). Normally, he will be selected as the leader of group assignments as he is good in observing and assigning tasks based on individual's expertise. Besides, he has the knowledge and skills from participating and organizing events during his study life in UTAR as well as his industrial training. During his industrial training, Mr. Loh worked at Westlake International School to assist in planning, development, design, organisation and monitoring of support services and whole school systems or procedures.

### **6.1.1 Human Resource Manager**

Ms. Lim Sze Kee is assigned as the Human Resource Manager of the company. As Human Resource and Administration Manager, Ms. Lim Sze Kee is responsible for the recruitment, development and welfare company personnel. She need to ensure that employees are recruited, managed, and resourced effectively so that company can run smoothly and effectively.

Ms. Lim Sze Kee graduated from Bachelor's Degree in Business Administration (HONS) Entrepreneurship. She always organizes study groups to do revision with her friends. She is a good motivator in motivating others to achieve their goals. Besides, Ms. Lim possesses good communication skills which enables her to easily communicate with all the staffs. She is also a caring person who always concerns about things that happen around. Furthermore, she is good in managing conflicts between people. Therefore, we believe that Ms. Lim can solve the conflicts between employees.

### **6.1.2 Marketing and Public Relation Manager**

Ms. Tan Ying Ying is the Marketing and Public Relation Manager of Flexable. She is responsible in developing marketing communication plans including strategies, goals, budgets and tactics.

Ms. Tan pursued Bachelor of Business Administration (HONS) Entrepreneurship in UTAR. Before studying in UTAR, she worked as a teacher's assistant in a tuition centre. She is patient in dealing with children. Besides that, Ms. Tan was also an outstanding intern during her industrial training at Westlake International School (WIS). She worked as a marketing admin to maintain the school's marketing and student database as well as prepare marketing reports and student projection figures. During her industrial training, she able to develop excellent communication skills with the ability to interact with the main customers, suppliers and partners. She was also able to build and maintain good relationships with other departments to easily obtain all the information needed to complete her tasks.

### **6.1.3 Accounting and Finance Manager**

Ms. Lim Liew Jiun was appointed as the Accounting and Finance Manager of Flexable where she will be responsible in monitoring and interpreting cash flows and predicting future trends. Ms. Lim graduated from UTAR with a Bachelor of Business Administration (HONS) Entrepreneurship. She was appointed to be the treasurer of a few societies during her secondary and high school. Besides that, she chose classes with accounting subject when she entered her form six studies.

From her academic results, it shows that she scores well in accounting subjects or any calculating related subjects. Moreover, she has completed her industrial training in i-Gen XYZ Financial Group which had given her much exposure in handling accounts and finances of a company. Therefore, we believe that Ms. Lim's wide knowledge and in-depth understanding in handling accounts and finance led her to be the best candidate for this position.

### **6.1.4 Operations Manager**

Ms. Wong Fong Theng is assigned as the Operations Manager. She is responsible to continuously review quality control processes, procedures and capabilities to meet the quality requirements with the most cost effective and efficient methods. Ms. Wong completed her of Bachelor's Degree in Business Administration (HONS) Entrepreneurship in UTAR. After completion of her secondary school life, she has worked in different companies such as Brands Outlet and Sushi Mentai as a part timer. Therefore, she has learned these company's operations in production. Furthermore, Ms. Wong manages tasks according to priorities. She always double checks the tasks to make sure there are no more mistakes. Thus, we believe that Ms. Wong capable of ensuring Flexable achieves effective cost and time management.

## **6.2 Key Professional**

### **6.2.1 Law Firm**

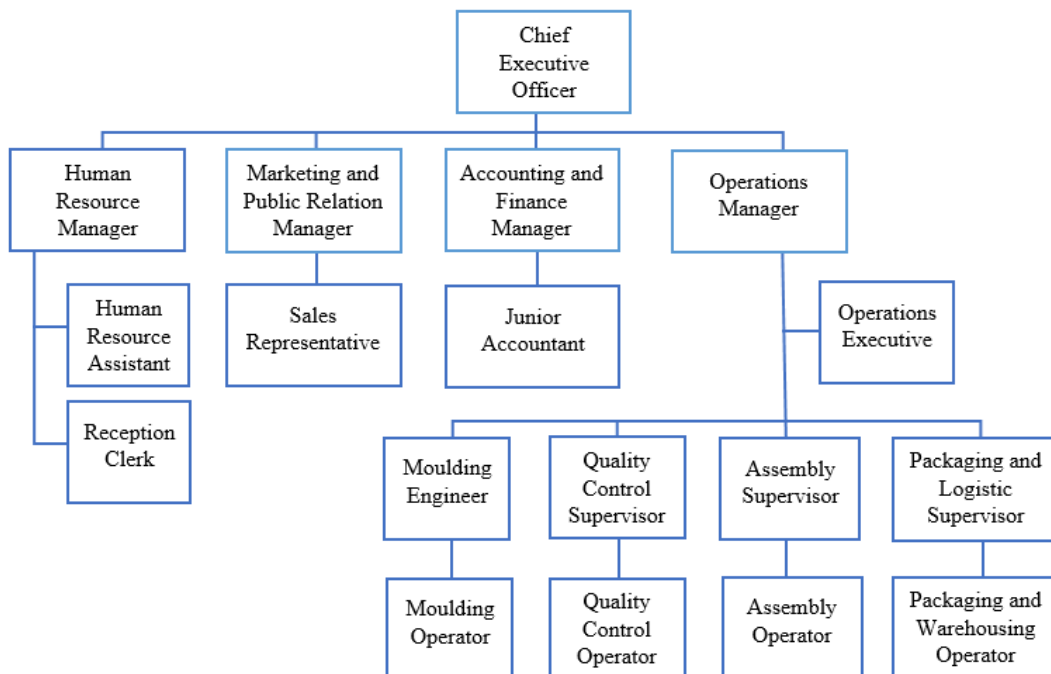
**Company Name** : S. Pritam Singh & Co.  
**Address** : 17A, Jalan Kemajuan, 31000 Batu Gajah.  
**Telephone Number** : 05- 3651213  
**Fax** : 05- 3653213  
**Email** : pritam.co@gmail.com  
**Member lawyers** : Pritam Singh A/L Sadhu Singh

The services provided by S. Pritam Singh & Co. include advocates and solicitors, register trademark and patent, agent and any issues related to the rules and regulations of the Government. S. Pritam Singh & Co. will ensure all the legal procedures and documents are well prepared and compiled by referring to the rules and regulations set by the Government. Additionally, S. Pritam Singh & Co. will provide guidance and advises on legal issues that are related to Flexable Sdn. Bhd.

## 7.0 COMPANY STRUCTURE, INTELLECTUAL PROPERTY, AND OWNERSHIP

### 7.1 Organizational Structure

Figure 7.1: Organizational Chart of Flexible Sdn. Bhd.



Source: Developed for the research

#### 7.1.1 Chief Executive Officer

A Chief Executive Officer (CEO) plays a significant role in leading the company towards the pace of success. CEO is the highest position in the top management team of Flexible Sdn. Bhd. CEO holds the highest authority and responsibility in controlling the entire business operations and making critical decisions in the

company's business activities. He has the most influencing power towards each department and needs to be involved in all job dimensions. He must ensure that every department performs their full responsibility by acting in the right direction to achieve the company goals. Besides, CEO is also required to build good organizational culture which may make employees feel safe and respected. He must constantly observe and get involved in the organization to achieve the desired culture.

Additionally, CEO is responsible to determine the company's vision, mission, objectives and other strategic planning directions of company that needs to be accomplished in either short term or long term. He needs to communicate each of these targets to every employee in the organization. Besides, CEO is the key personnel in setting the company's rules and regulations that serve as a guide for employees to behave properly. It guides the company to operate business in an ethical, effective and efficient way. The CEO also acts in creating and implementing the company's policies and decision plan to every level of the organization. CEO is an important person in supervising, planning, deciding, and implementing any of it for company's greater benefits.

### **7.1.2 Human Resource Manager**

There are two main divisions under this department which are Human Resource division and Administration division that are supervised by the Human Resource Manager. This department can be considered as the backbone of a company in managing all human resource activities and handle the administrative works.

Firstly, the department needs to deal with the recruitment and selection process. The department is responsible for recruiting potential candidates for the company vacancies through different ways such as advertise recruitment notices. As a manager for this department, she should hire the right person for the right job by understanding the job description and job scope of each position. She plays a role in interviewing the candidates and viewing their resumes to know the working

experience and skills possessed by the candidates. Then, she needs to select the qualified candidates by considering their relevant qualifications and abilities to fulfil the company's position and optimize taskforce.

Moreover, employees' benefits and compensation are highly concerned by every level of employees. Human Resource Department must design the relevant policies that clearly state the requirements for employees' benefits, monetary compensation and non-monetary compensation to avoid any conflicts. Employees can enjoy benefits such as medical leave, annual leave, maternity leave, EPF and SOSCO. The employees will also be rewarded with allowances, bonuses or a raise in wages based on their job performance. Those with higher abilities and perform well will get a chance at being promoted to a higher position. Workplace satisfaction and sufficient employees' benefits and compensation will be able to improve employees' satisfaction towards working environment and motivate them to contribute their full effort in increasing company productivity.

Next, training and development is another crucial human resource function to enhance the employees' knowledge, skills and attitudes required to perform a given job sufficiently. The department needs to be in charge of arranging and sending the potential employees for necessary training and development programs that can improve their effectiveness and efficiency in the workplace that able to increase company's output. Besides, the administration division is responsible for handling all general affairs. For example, perform overall administrative tasks, administrative and clerical management.

### **7.1.3 Marketing and Public Relation Manager**

Marketing and Public Relation (PR) Department plays a key role in enhancing company's brand, image and sales as well as maintain company's reputation. This department is responsible for developing various marketing and pricing strategies and managing the company's relationship with stakeholders. Thus, Marketing and

PR are two major divisions under the Marketing and Public Relation Manager's supervision.

The Marketing division is directly engaged with all the sales and marketing activities. The successful marketing of events and implementing suitable marketing strategies can assist the company in generating more revenues. The team needs to understand customers' needs and be alert with the latest market trends. Enforcing sales process and communication skills are important for them to convince the potential target customers. Besides, the sales representatives must also comprehend the product and its functions in depth so that demonstration of product can be presented to customers professionally. Relevant, accurate and timely information should be delivered to customers to satisfy them.

Other than that, advertising and promotion is a central strategy to create awareness among customers and boost the sales. The marketing team should plan attentively to acquire new customers and retain existing customers through the effective advertisements and promotions. The team will design attractive advertisement contents and create creative videos to advertise the product via different advertising channels. The effort of having annual sales promotion, providing vouchers or offering discounts will be able to raise the chances of customers purchasing.

Furthermore, as a PR Manager, she needs to communicate with all related parties and deal with customer service matters. She is important in monitoring and strengthening relationships with all company's stakeholders such as customers, the community and media. This division concentrates on understanding the expectations of each internal as well as external stakeholder. This division is responsible for getting in contact with them and communicate the company's product features to outsiders or the public via planning and organizing events. Besides, the PR manager acts in response to customers' enquiries by assisting them with relevant customer service.

#### **7.1.4 Accounting and Finance Manager**

The Accounting and Finance Manager are in charge of accounting and financing which are the two major divisions involved in a company.

Accounting division plays a significant role in recording the company's overall income and expenses as well as analyse company's net profit based on the sales revenue of product. Then, the office's task is preparing income statement and balance sheet on a monthly basis. This department needs to keep an eye on the daily money transactions in the company to ensure the stability of the financial position. Besides, forecasting sales, budgeting and financial reporting are also important tasks for a company in making profits.

Moreover, the finance division is responsible for controlling and maintaining the company's cash flow. The health of a company's cash flow will affect the operations for all processes. To make sure the company is financially stable, the financing office needs to regularly check and ensure that the cash inflow is more than cash outflow. The finance division plays a role in evaluating and preventing the financial risk as well as evaluating investment opportunities and their returns.

#### **7.1.5 Operations Manager**

Production operation, quality control, research and development, purchasing, logistics, packaging, labelling and warehousing are activities under the operations department.

The fundamental formation of production operations is the process of creating the product. The manager is responsible to supervise the production line. Operations is an essential part in Flexible Sdn. Bhd. since it involves inspecting the overall manufacturing process from those raw materials into finished good. The effectiveness of production operations will affect the company's ability in gaining profit as well as the brand, image and reputation of company.



Every customer tends to expect good quality products from companies. Thus, quality control activity is a crucial step for to complete the production process and produce products that meet customers' expectations. The quality control division involves in examining and analysing the quality of raw materials received from suppliers, components from subcontractors and the quality of finished goods produced. Quality checking is the effort to achieve zero errors. Quality assurance can minimize the rates of defective products. Failure to do so will be considerably costly to the company when defective products reach end customers.

Additionally, the purchasing and logistics activities are involved in ordering and purchasing raw materials from the suppliers. The division is responsible to negotiate with suppliers and close deals at the best price for company's benefit. Other than that, the division is also in charge of scheduling which involves arranging the order deliveries of raw materials and shipments of products to customers on time. Logistics involve smoothing the supply chain management.

Besides, packaging and labelling is another vital part that must be done before the finished goods are sold to B2B customers. Packaging can prevent the company products from damaging, create brand image and attract customer attention. Labelling aims to provide customers accurate product information. Warehousing is another important activity to store the raw materials, components and finished goods properly and safely.

Lastly, the research and development division is in charge of researching, designing and innovating. This division takes the responsibilities of continuously modifying and improving company products to meet customer requirements and compete with competitors. The person in charge should be alert of the market preferences changing and design product features that suit to them. Research and development is important not only to ensure the product durability but also for company sustainability.

## **7.2 Legal Structure**

### **7.2.1 Legal Form of Organization**

Flexable will be formed as a Private Limited Company. Flexable will need to register at Suruhanjaya Syarikat Malaysia (SSM). Flexable consists of five shareholders who also are the founders.

This legal form separates the organisational legal personality from its owners. The company is liable to the taxes on corporate income. It protects the shareholders against the liable liabilities and reduces their risk. The liability of shareholders is limited to the capital amount that they have contributed.

Flexable will also be easier to raise capital and continue to existence until it is removed from the registrar without being affected by the status of its shareholders. Flexable also has the full capacity to sue or be sued. Besides, the shareholders will retrieve the profits that return to them in term of dividends.

Thus, the company name will carry “Sdn Bhd” as Flexable Sdn. Bhd. The legal structure of Flexable as well as its rules and regulations of registration is incorporated or governed by Companies Act 1965.

### **7.2.2 Ownership Structure of the Business**

Furthermore, the company will be owned by five shareholders who are the founders that contribute a certain amount of capital. At the same time, they are also the members of the management team responsible in managing the business that entitle to receive salary every year. These five founders have different responsibilities, authorities and percentage of share in terms of ownership.

Table 7.1: Ownership of Flexible Sdn. Bhd.

Name	Capital Contributed (RM)	Share (%)
Loh Zhang Chee	8,000	26.68
Lim Sze Kee	5,500	18.33
Tan Ying Ying	5,500	18.33
Lim Liew Jiun	5,500	18.33
Wong Fong Theng	5,500	18.33
Total:	30,000	100

Source: Develop for the research

Besides, since we are fresh graduates and are not capable of contributing a big amount of capital, we will apply for Graduate Entrepreneur Fund as well as the Women Entrepreneur Financing Program for capital funding purpose.

## 7.3 Intellectual Property

### 7.3.1 Trademarks

The company will apply for trademarks to protect the company name “Flexible Sdn. Bhd.”, company logo, product name “EXA FRAME” and product logo. Trademarks can prevent our company’s name, product name or logo being imitated or misused by other parties which may damage the company’s reputation. Trademarks help to distinguish our company product from other product in the market and able avoid customers’ confusion.

### **7.3.2 Patent**

Flexible will register for utility patent protection for EXA FRAME. Flexible will patent the production process of the frame and the frame of the product itself. This protection provides exclusive rights for a period of 2 years to Flexible. Then, the company will need to renew the utility innovation certificate annually that commences on the third year after the grant of certificate. If there is any patent infringement, a 20% of royalty will be charged to the respective party who tend to create the same kind of production process or frame.

The patent and exclusive rights of the idea and EXA FRAME product belongs to us (FYP Group) and University Tunku Abdul Rahman. UTAR hereby has the right to commercialize over our prototype.

## 8.0 FINANCIAL PLAN

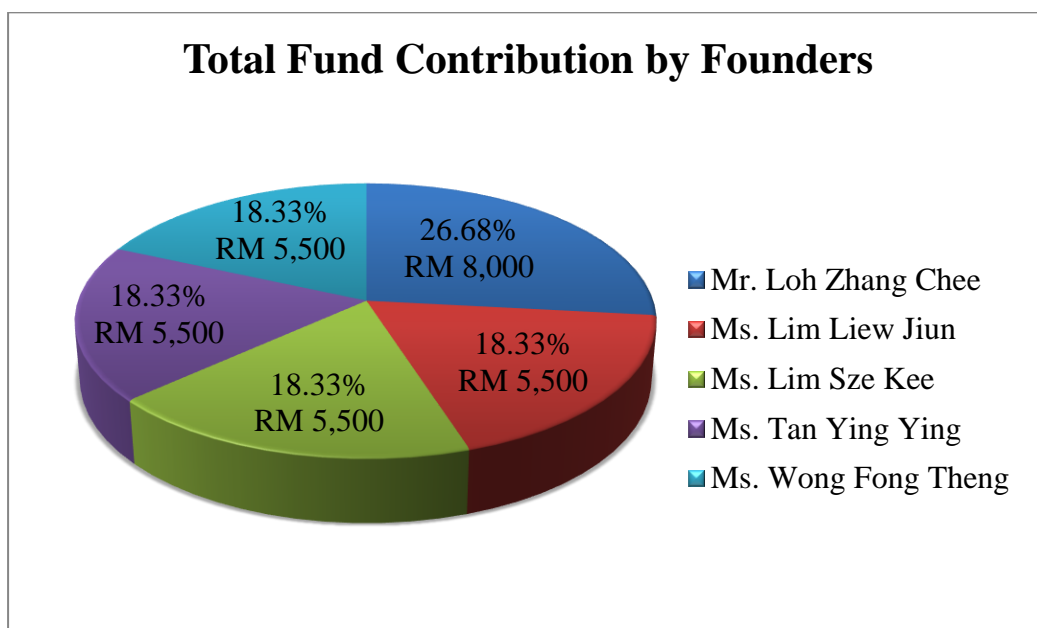
### 8.1 Capital Requirements for the Next Five Years

#### 8.1.1 Sources of Fund

##### I. Fund from Founders

The total fund that will be contributed by the founders is RM30,000. One out of the five founders will contribute RM8,000 while the remaining four founders will contribute RM5,500 respectively. The percentage of share that holds by the founders is based on the amount of fund they contributed.

Figure 8.1: Shareholders' Contribution



Source: Developed for the research

## II. Graduate Entrepreneur Fund

Besides, we will apply a loan from the Graduate Entrepreneur Fund that is handled by Malaysia SME Bank (SME Business Malaysia.com, 2017). The objective of this fund is to promote young graduates to enter the field of entrepreneurship (SME Business Malaysia.com, 2017). Flexable will apply for RM500,000 and assume that 80% from the amount applied will be approved, which is RM400,000.

**Table 8.1: Features of Graduate Entrepreneur Fund**

Type of Fund	Features
Graduate Entrepreneur Fund	<p>Interest rate: 4% per annum</p> <p>Minimum financing: RM 20,000</p> <p>Maximum financing: RM 500,000</p> <p>Finance period: 10 years</p> <p>Grace period: 4 years</p> <p>Other: Finance 100% for amount less than RM 100,000 and 90% if more than RM 100,000.</p>

*Source: SME Business Malaysia.com. (2017). Types of Government loans that Malaysia SME can benefit from applying.*

## III. Women Entrepreneur Financing Program

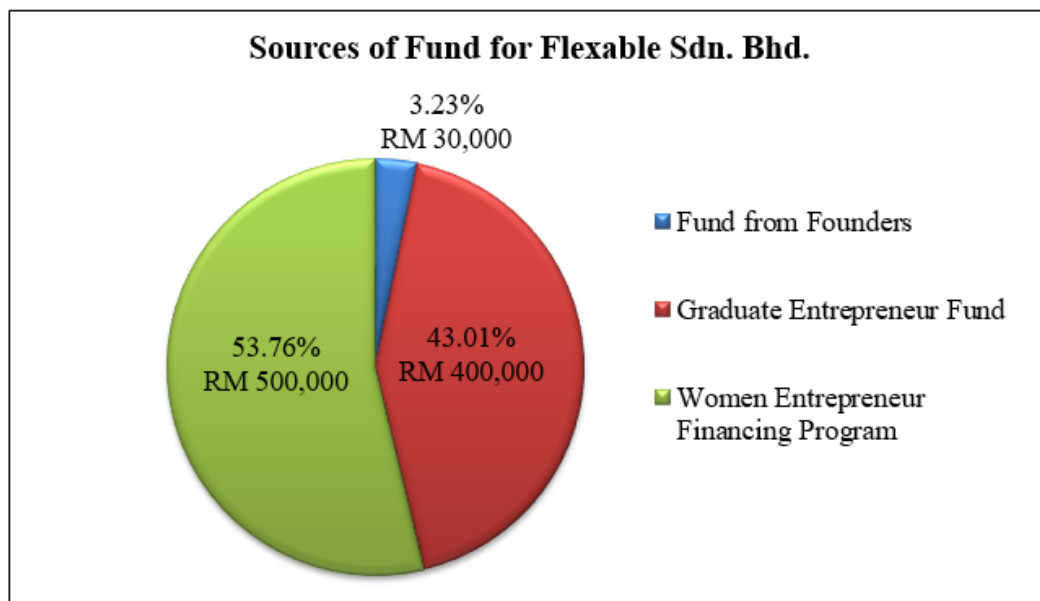
Since there are four female founders of Flexable Sd. Bhd., we will apply fund from Women Entrepreneur Financing Program that assists women entrepreneurs under the SME category to obtain financing for their business (Small Medium Enterprise Development Bank Malaysia Berhad, 2017). Flexable will apply RM625,000 from this fund. However, we expect to get an approval amount of RM500,000 which is 80% of the amount applied and also the minimum financing amount from this women entrepreneur financing program for capital funding.

**Table 8.2: Features of Women Entrepreneur Financing Program**

Type of Fund	Features
Women Entrepreneur Financing Program	Profit rate: 5% per annum Minimum financing: RM 500,000 Maximum financing: RM2,500,000 Tenure: -Up to 10 years including grace period for purchase of assets. -Up to 7 years including grace period for working capital.

Source: Small Medium Enterprise Development Bank Malaysia Berhad. (2017). *Financing program for women entrepreneur (WEP-LEAP).*

**Figure 8.2: Sources of Fund for Flexible Sdn. Bhd.**



Source: Developed for the research

### 8.1.2 Start-up Cost

Table 8.3: General Cost

No.	Item	RM	RM
1.	<u>Patent (Matter / Proceeding):</u>		
	Request for Grant of Patent	260	
	Request for Certified Copies or Extracts	70	
	Application for Grant of Certificate of Utility Innovation	130	
	Application for Registration of Patent Agent	2,600	
	Copy of Patent	40	
	Copy of Search Report	30	
	Fee for Public Inspection of Information Relating to Patent Application (RM 30 x 8 hours)	240	
	<b>Total Patent Registration Fee</b>		<b>3,370</b>
2.	Trademarks Registration Fee		1,760
3.	Business Registration Fee		60
4.	Company Name Registration		30
5.	Renovation		50,000
6.	Construction Cost for Cold Room		8,000
7.	Business Card (RM 0.10 x 1,000 pcs)		100
8.	Uniform (T-shirt) (RM 18 x 80)		1,440
9.	GPS App Registration Subscription Fee		1,500
	<b>General Cost excluded Deposit Items</b>		<b>66,260</b>
10.	Rental Deposit (RM 3,500 x 2 months)		7,000



11.	Telephone and Internet Deposit (RM 120 x 2 months)		240
<b>Total General Cost:</b>			<b>73,500</b>

Source: Developed for the research

Table 8.4: Office Equipment Cost

No.	Item	Quantity (unit)	Price (RM)	Total (RM)
1.	Internet Modem	1	60	60
2.	Security (CCTV and Alarm System)	1	1,200	1,200
3.	Thumbprint Machine	1	150	150
4.	Fire Extinguisher	10	70	700
5.	First Aid Kit	5 Set	30	150
6.	Steel Lockers	4	250	1,000
7.	Office Cupboard	15	200	3,000
8.	Office Table	15	120	1,800
9.	Work Table	7	80	560
10.	Conference Table	1	600	600
11.	Work Chair	20	20	400
12.	Office Chair	15	120	1,800
13.	Executive Chair	5	300	1,500
14.	Conference Chair	10	100	1,000
15.	Desktop Computer	10	1,000	10,000
16.	Laptop	5	1,200	6,000

17.	Reception Counter	1	250	250
18.	Recycle Bin	2	30	60
19.	Dustbin	15	2	30
20.	Office Phone	16	20	320
21.	Stationery	One Lump-sum	200	200
22.	Water Dispenser	2	80	160
23.	Refrigerator	1	400	400
24.	Kitchen Cabinet	1	350	350
25.	Hand Pallet	2	220	440
26.	Storage Rack (Medium)	20	200	4,000
27.	Forklift (Lease)	1	200	200
28.	All in One Photocopy Machine (Lease)	1	200	200
29.	Projector	1	280	280
30.	Projector Screen	1	180	180
	<b>Total:</b>			<b>36,990</b>

Source: Developed for the research

Table 8.5: Vehicle Cost

No.	Item	Quantity (unit)	Price per unit (RM)	Total (RM)
1.	Van- 2015 Chery Transcom 2.0 (M)	1	48,000	48,000
	<b>Total :</b>			<b>48,000</b>

Source: Developed for the research

Table 8.6: Machinery Cost

No.	Item	Quantity (unit)	Price per unit (RM)	Total (RM)
1.	Fully Automated Molding Machine	1	280,000	280,000
	<b>Total :</b>			<b>280,000</b>

Source: Developed for the research

Table 8.7: Total Start-up Cost

Items	Amount (RM)
General Cost	73,500
Office Equipment Cost	36,990
Vehicle Cost	48,000
Machinery Cost	280,000
<b>Total Start-up Cost</b>	<b>438,490</b>

Source: Developed for the research

Table 8.8: Start-up Cash Available

Items	Amount (RM)	
Funding:		
Funding from Founders [(RM 5,500 x 4) + 8,000]	30,000	
Funding from Graduate Entrepreneur Fund	400,000	
Funding from Women Entrepreneur Financing Program	500,000	
Total Capital Funding		930,000
(-) Total Start-up cost		438,490
<b>Start-up Cash Available</b>		<b>491,510</b>

Source: Developed for the research

## 8.2 Overview of Financial Projection

### 8.2.1 List of Assumptions

#### (1) Yearly Expenses

Table 8.9: Yearly Expenses

No.	Items
1.	Business renewal fee
2.	Patent annual fee
3.	Rental
4.	Utilities (electricity + water)
5.	Telephone and internet
6.	Company Insurance
7.	Maintenance for fire extinguisher
8.	Marketing and advertising
9.	Research and development
10.	Training and development
11.	Lawyer consultation fee
12.	Leasing fee-Forklift
13.	Leasing fee-All in one photocopy machine
14.	Machine Maintenance Cost
15.	Van insurance
16.	Van maintenance cost
17.	Road tax
18.	Petrol

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19.	Salary
20.	EPF
21.	SOSCO
22.	Sales commission
23.	Depreciation
24.	Outsource cleaning service
25.	Outsource security service
26.	3 <sup>rd</sup> Party logistics service charge (3PL)
27.	Production tools
28.	ISO Fee

Source: Developed for the research

(2) The business license must be renewing every year.

(3) The patent annual fee is referring to the annual fee for certificate for utility innovation of the product. According to MyIPO (n.d.), this fee will only start to occur from third year onwards.

(4) The rental is RM3,500 per month. Flexible needs to pay for two months of rental deposit in the first year.

(5) Flexible estimates that the utilities such as electricity and water require about RM4,000 per month and RM48,000 per year for first year and second year. The monthly utilities are expected to increase 20% starting from the third year due to the increasing usage in production.

(6) The telephone and internet fee is RM120 per month. Flexible needs to pay for two months of telephone and internet deposit.

(7) Flexible estimates that the company insurance will be fixed at RM1,500 per month for the factory and to protect the business from any unexpected losses or damages.

(8) The maintenance fee for 10 units of fire extinguishers will be RM400 yearly.

(9) At the first year a budget of RM50,000 will be provided for marketing and advertising purposes. It might have a decrease of 40% in the second year and will maintain in the following years as the business was starts to stable in the market.

(10) An amount around RM10,000 per year will be budgeted for research and development. The research and development cost will only take place on first, third and fifth year.

(11) The training and development will be provided when necessary, so starting from the second year, an amount of RM8,000 is budgeted for training and development cost. Flexible plans to provide training and development for every two years.

(12) Lawyer consultation fee that is charged by the law firm will be RM3,000 yearly.

(13) The leasing fee of forklift and all in one photocopy machine are RM200 per month respectively.

(14) The machine will be checked and maintained at least once a year. The machine will include 1 year of warranty. Thus, the machine maintenance cost is estimated at RM6,000 per year from second year onwards.

(15) The vehicle insurance will maintain at RM180 per month.

(16) Flexible assumes that there will be a van maintenance cost of RM1,000 each year.

(17) The yearly road tax for the second-hand van is RM350.

(18) An amount of RM50 per month will be predicted for petrol, RM600 per year.

(19) Salaries, EPF and SOSCO

Table 8.10: Gross Salaries of Employees for 2018-2022

<b>Year</b> <b>Position</b>	<b>2018</b> <b>(RM)</b>	<b>2019</b> <b>(RM)</b>	<b>2020</b> <b>(RM)</b>	<b>2021</b> <b>(RM)</b>	<b>2022</b> <b>(RM)</b>
Manager (5ppl)	2,800 x 5 =14,000	14,000	3,000 x 5 =15,000	15,000	3,200 x 5 =16,000
Human resource assistant	1,050	1,050	1,250	1,250	1,450
Reception clerk	1,050	1,050	1,250	1,250	1,450
Junior accountant	1,800	1,800	2,000	2,000	2,200
Sales representative (2ppl)	1,200 x 2 =2,400	2,400	1,400 x 2 =2,800	2,800	1,600 x 2 =3,200
Operation executive	2,000	2,000	2,200	2,200	2,400
Moulding engineer	2,800	2,800	3,000	3,000	3,200
Moulding operator (2ppl)	1,500 x 2 =3,000	3,000	1,700 x 2 =3,400	3,400	1,900 x 2 =3,800
Quality control supervisor	1,600	1,600	1,800	1,800	2,000
Quality control operator	1,200	1,200	1,400	1,400	1,600
Assembly supervisor	1,500	1,500	1,700	1,700	1,900
Packaging and logistics supervisor	1,500	1,500	1,700	1,700	1,900

Packaging and warehouse operator (2ppl)	1,050 x 2 =2,100	2,100	1,250 x 2 =2,500	2,500	1,450 x 2 =2,900
Total (12 months)	432,000	432,000	480,000	480,000	528,000

Source: Developed for the research

There are total 20 permanent employees who hold different positions in Flexable Sdn. Bhd. There will be a monthly salary increment of RM200 for every employee. The increasing of salary for each employee occurs every two years.

According to the Employees Provident Fund Act 1991 (Act 452), an employer is required by the Laws of Malaysia to contribute 13% of EPF based on the gross salary of employee. However, the employees will contribute 8% from their salary. Besides, company will also contribute in SOCSO based on the employer's contribution and employee's contribution rate that is fixed under the Employees' Social Security Act 1969 depending on the employee's gross salary.

Table 8.11: Employer's Contribution for EPF (13%) for 2018-2022

<b>Year</b> <b>Position</b>	<b>2018</b> <b>(RM)</b>	<b>2019</b> <b>(RM)</b>	<b>2020</b> <b>(RM)</b>	<b>2021</b> <b>(RM)</b>	<b>2022</b> <b>(RM)</b>
Manager (5ppl)	1,820	1,820	1,950	1,950	2,080
Human resource assistant	136.50	136.50	162.50	162.50	188.50
Reception clerk	136.50	136.50	162.50	162.50	188.50
Junior accountant	234	234	260	260	286
Sales representative (2ppl)	312	312	364	364	416
Operation executive	260	260	286	286	312
Moulding engineer	364	364	390	390	416



Moulding operator (2ppl)	390	390	442	442	494
Quality control supervisor	208	208	234	234	260
Quality control operator	156	156	182	182	208
Assembly supervisor	195	195	221	221	247
Packaging and logistics supervisor	195	195	221	221	247
Packaging and warehouse operator (2ppl)	273	273	325	325	377
Total (12 months)	56,160	56,160	62,400	62,400	68,640

Source: Developed for the research

Table 8.12: Employer's Contribution for SOSCO for 2018-2022

<b>Year</b> <b>Position</b>	<b>2018</b> <b>(RM)</b>	<b>2019</b> <b>(RM)</b>	<b>2020</b> <b>(RM)</b>	<b>2021</b> <b>(RM)</b>	<b>2022</b> <b>(RM)</b>
Manager (5ppl)	48.15 x 5 =240.75	240.75	51.65 x 5 =258.25	258.25	55.15 x 5 =275.75
Human resource assistant	18.35	18.35	21.85	21.85	25.35
Reception clerk	18.35	18.35	21.85	21.85	25.35
Junior accountant	30.65	30.65	34.15	34.15	37.65
Sales representative (2ppl)	20.15 x 2 =40.30	40.30	23.65 x 2 =47.30	47.30	27.15 x 2 =54.30
Operation executive	34.15	34.15	37.65	37.65	41.15
Moulding engineer	48.15	48.15	51.65	51.65	55.15

Moulding operator (2ppl)	25.35 x 2 =50.70	50.70	28.85 x 2 =57.70	57.70	32.35 x 2 =64.70
Quality control supervisor	27.15	27.15	30.65	30.65	34.15
Quality control operator	20.15	20.15	23.65	23.65	27.15
Assembly supervisor	25.35	25.35	28.85	28.85	32.35
Packaging and logistics supervisor	25.35	25.35	28.85	28.85	32.35
Packaging and warehouse operator (2ppl)	18.35 x 2 =36.70	36.70	21.85 x 2 =43.70	43.70	25.35 x 2 =50.70
Total (12 months)	7,393.20	7,393.20	8,233.20	8,233.20	9,073.20

Source: Developed for the research

Table 8.13: Employees' Contribution for EPF (8%) for 2018-2022

<b>Year</b> <b>Position</b>	<b>2018</b> <b>(RM)</b>	<b>2019</b> <b>(RM)</b>	<b>2020</b> <b>(RM)</b>	<b>2021</b> <b>(RM)</b>	<b>2022</b> <b>(RM)</b>
Manager (5ppl)	1,120	1,120	1,200	1,200	1,280
Human resource assistant	84	84	100	100	116
Reception clerk	84	84	100	100	116
Junior accountant	144	144	160	160	176
Sales representative (2ppl)	192	192	224	224	256
Operation executive	160	160	176	176	192
Moulding engineer	224	224	240	240	256

Moulding operator (2ppl)	240	240	272	272	304
Quality control supervisor	128	128	144	144	160
Quality control operator	96	96	112	112	128
Assembly supervisor	120	120	136	136	152
Packaging and logistics supervisor	120	120	136	136	152
Packaging and warehouse operator (2ppl)	168	168	200	200	232
Total (12 months)	34,560	34,560	38,400	38,400	42,240

Source: Developed for the research

Table 8.14: Employees' Contribution for SOSCO for 2018-2022

<b>Year</b> <b>Position</b>	<b>2018</b> <b>(RM)</b>	<b>2019</b> <b>(RM)</b>	<b>2020</b> <b>(RM)</b>	<b>2021</b> <b>(RM)</b>	<b>2022</b> <b>(RM)</b>
Manager (5ppl)	13.75 x 5 =68.75	68.75	14.75 x 5 =73.75	15,000	15.75 x 5 =78.75
Human resource assistant	5.25	5.25	6.25	6.25	7.25
Reception clerk	5.25	5.25	6.25	6.25	7.25
Junior accountant	8.75	1,800	9.75	2,000	10.75
Sales representative (2ppl)	5.75 x 2 =11.50	2,400	6.75 x 2 =13.50	2,800	7.75 x 2 =15.50
Operation executive	9.75	2,000	10.75	2,200	11.75
Moulding engineer	13.75	2,800	14.75	3,000	15.75
Moulding operator (2ppl)	7.25 x 2 =14.50	3,000	8.25 x 2 =16.50	3,400	9.25 x 2 =18.50

Quality control supervisor	7.75	1,600	8.75	1,800	9.75
Quality control operator	5.75	1,200	6.75	1,400	7.75
Assembly supervisor	7.25	7.25	8.25	8.25	9.25
Packaging and logistics supervisor	7.25	7.25	8.25	8.25	9.25
Packaging and warehouse operator (2ppl)	5.25 x 2 =10.50	2,100	6.25 x 2 =12.50	2,500	7.25 x 2 =14.50
Total (12 months)	2,112	2,112	2,352	2,352	2,592

Source: Developed for the research

Table 8.15: Net Salaries after Employees' Contribution for EPF (8%) and SOCSO

<b>Year</b> <b>Items</b>	<b>2018</b> <b>(RM)</b>	<b>2019</b> <b>(RM)</b>	<b>2020</b> <b>(RM)</b>	<b>2021</b> <b>(RM)</b>	<b>2022</b> <b>(RM)</b>
Salary before employees' contribution	432,000	432,000	480,000	480,000	528,000
(-) EPF	34,560	34,560	38,400	38,400	42,240
(-) SOCSO	2,112	2,112	2,352	2,352	2,592
Net Salary after employees' contribution	395,328	395,328	439,248	439,248	483,168

Source: Developed for the research

Table 8.16: Total Employer' and Employees' Contribution for EPF and SOCSO

<b>Year</b> <b>Items</b>	<b>2018</b> <b>(RM)</b>	<b>2019</b> <b>(RM)</b>	<b>2020</b> <b>(RM)</b>	<b>2021</b> <b>(RM)</b>	<b>2022</b> <b>(RM)</b>
<u>EPF</u>					

Employer's contribution	56,160	56,160	62,400	62,400	68,640
Employees' contribution	34,560	34,560	38,400	38,400	42,240
Total	90,720	90,720	100,800	100,800	110,880
<u>SOCSSO</u>					
Employer's contribution	7,393.20	7,393.20	8,233.20	8,233.20	9,073.20
Employees' contribution	2,112	2,112	2,352	2,352	2,592
Total	9,505.20	9,505.20	10,585.20	10,585.20	11,665.20

Source: Developed for the research

(20) Estimated labour cost

The estimated labour cost in this section is for the assembly part in producing finished goods. The number of assembly operators needed may be different every month according to the production level. Flexible will hire part time foreign workers to perform the assembly tasks. Flexible expects that one worker can assemble 800 units of finished product per month. The monthly salary for each worker is RM1,000. No EPF and SESCO will be given to the part time workers. Refer to Appendix U24 for estimated labour cost (part time) each year.

Thus, Flexible decides to cooperate with Mega Staff Sdn Bhd that will supply the labours based on the number of part time workers we require. Mega Staff Sdn Bhd is an agency that supplies foreign workers from various countries like Cambodia, Myanmar, India, Nepal, Vietnam and etc (Mega Staff Sdn Bhd, 2016). Flexible assumes that there is RM2,000 service fee charged by Mega Staff per year which may include insurance, visa, processing fee and levy.

Table 8.17: Total Salaries Expenses for 2018-2022

<b>Items \ Year</b>	<b>2018 (RM)</b>	<b>2019 (RM)</b>	<b>2020 (RM)</b>	<b>2021 (RM)</b>	<b>2022 (RM)</b>
Permanent employees	395,328	395,328	439,248	439,248	483,168
Part time foreign workers	27,000	31,000	44,000	50,000	60,000
Service charge	2,000	2,000	2,000	2,000	2,000
<b>Total</b>	<b>424,328</b>	<b>428,328</b>	<b>485,248</b>	<b>491,248</b>	<b>545,168</b>

Source: Developed for the research

(21) Sales commission

The sales representatives are entitled to receive the commission for 1% on each product that they are able to sell.

Table 8.18: Estimated Sales Commissions

<b>Year</b>	<b>Sales unit (Qty)</b>	<b>Sales (RM)</b>	<b>Commission (RM 60 x 1% = RM 0.60 per unit)</b>
<b>2018</b>	15,455	15,455 x 60 = 927,300	9,273
<b>2019</b>	20,105	20,105 x 60 = 1,206,300	12,063
<b>2020</b>	30,160	30,160 x 60 = 1,809,600	18,096
<b>2021</b>	36,190	36,190 x 60 = 2,171,400	21,714
<b>2022</b>	43,428	43,428 x 60 = 2,605,680	26,056.80

Source: Developed for the research

## (22) Depreciation

The depreciation rate per annum is 10% for office equipment and vehicle and 15% for machinery by using straight line method.

Table 8.19: Depreciation on Fixed Assets

Items		Office Equipment	Vehicle	Machinery
Rate		(10%)	(10%)	(15%)
Purchasing Price		36,990	48,000	280,000
Depreciation Expenses for Each Year		3,699	4,800	42,000
<b>2018</b>	Acc. Depr	3,699	4,800	42,000
	NBV	33,291	43,200	238,000
<b>2019</b>	Acc. Depr	7,398	9,600	84,000
	NBV	29,592	38,400	196,000
<b>2020</b>	Acc. Depr	11,097	14,400	126,000
	NBV	25,893	33,600	154,000
<b>2021</b>	Acc. Depr	14,796	19,200	168,000
	NBV	22,194	28,800	112,000
<b>2022</b>	Acc. Depr	18,495	24,000	210,000
	NBV	18,495	24,000	70,000

Source: Developed for the research

(23) Flexible will outsource both cleaning services and security services to the 3<sup>rd</sup> party companies. Flexible may need one cleaner and one security guard. The monthly charges for outsourcing cleaning and security service are RM1,000 and RM1,100 per worker respectively.

(24) 3<sup>rd</sup> Party Logistics Service Charge (3PL)

The transportation service of Flexible will be outsourced to TASCOS Berhad, a 3PL service provider. Both the inbound and outbound logistics service charges need to involve 6% of GST.

Flexible purchases raw materials or components from subcontractors once every two months, so there are six trips of inbound logistics shipments per year. The service charged is affected by the quantity of items shipped. Flexible assumes that the inbound logistics service charges incurred is 1% of the company material purchased amount.

**Table 8.20: Inbound Logistics Service Charges / Carriage Inwards**

<b>Year</b>	<b>Inbound month</b>	<b>Material purchased (RM) [unit x 26]</b>	<b>Charges per trip without GST (RM) [1% rate]</b>	<b>6% GST (RM)</b>	<b>Charge per trip with GST (RM)</b>
<b>2018</b>	Jan	46,800	468	28.08	496.08
	Mar	53,300	533	31.98	564.98
	May	52,000	520	31.20	551.20
	July	54,600	546	32.76	578.76
	Sept	46,800	468	28.08	496.08
	Nov	154,700	1,547	92.82	1,639.82
	<b>Total:</b>		<b>408,200</b>	<b>4,082</b>	<b>244.92</b>
<b>2019</b>	Jan	62,400	624	37.44	661.44
	Mar	85,800	858	51.48	909.48
	May	65,000	650	39	689
	July	65,000	650	39	689
	Sept	62,400	624	37.44	661.44
	Nov	185,900	1,859	111.54	1,970.54
	<b>Total:</b>		<b>526,500</b>	<b>5,265</b>	<b>315.90</b>
	Jan	85,800	858	51.48	909.48



<b>2020</b>	Mar	152,360	1,523.60	91.42	1,615.02
	May	89,440	894.40	53.66	948.06
	July	68,120	681.20	40.87	722.07
	Sept	72,800	728	43.68	771.68
	Nov	318,240	3,182.40	190.94	3,373.34
	<b>Total:</b>	<b>786,760</b>	<b>7,867.60</b>	<b>472.05</b>	<b>8,339.65</b>
<b>2021</b>	Jan	110,240	1,102.40	66.14	1,168.54
	Mar	172,900	1,729	103.74	1,832.74
	May	105,430	1,054.30	63.26	1,117.56
	July	91,000	910	54.60	964.60
	Sept	100,880	1,008.80	60.53	1,069.33
	Nov	363,480	3,634.80	218.09	3,852.89
	<b>Total:</b>	<b>943,930</b>	<b>9,439.30</b>	<b>566.36</b>	<b>10,005.66</b>
<b>2022</b>	Jan	136,240	1,362.40	81.74	1,444.14
	Mar	209,300	2,093	125.58	2,218.58
	May	140,400	1,404	84.24	1,488.24
	July	108,160	1,081.60	64.90	1,146.50
	Sept	120,120	1,201.20	72.07	1,273.27
	Nov	417,560	4,175.60	250.54	4,426.14
	<b>Total:</b>	<b>1,131,780</b>	<b>11,317.80</b>	<b>679.07</b>	<b>11,996.87</b>

Source: Developed for the research

However, the service charges for inbound and outbound logistics might be different. Flexible assumes that the outbound logistics service charges is 3% of the total sales amount.

**Table 8.21: Outbound Logistics Service Charges / Carriage Outwards**

<b>Year</b>	<b>Total Sales (RM)</b>	<b>Charges without GST (RM) [3% rate]</b>	<b>6% GST (RM)</b>	<b>Charges with GST (RM)</b>
<b>2018</b>	927,300	27,819	1,669.14	29,488.14

<b>2019</b>	1,206,300	36,189	2,171.34	38,360.34
<b>2020</b>	1,809,600	54,288	3,257.28	57,545.28
<b>2021</b>	2,171,400	65,142	3,908.52	69,050.52
<b>2022</b>	2,605,680	78,170.40	4,690.22	82,860.62

Source: Developed for the research

(25) Cost of Production Tools

Table 8.22: Production Tools Cost

<b>No.</b>	<b>Items</b>	<b>Price per unit (RM)</b>
1.	Thermosetting Resin (Per Kg)	8.00
2.	Mould Release (Per Kg)	8.00
3.	Hand Tools (Scissors, Cutters, and Knives)	40.00
4.	Cotton Glove	6.00
5.	Pallet	10.00
6.	Carton Box	1.00
7.	Stretch Film (roll)	5.00
8.	Plastic Packaging	0.05
9.	Carton Sealing Tape (roll)	2.00

Source: Developed for the research

The number of production tools needed is based on the production level. Refer to Appendix U25 for estimated production tools cost for the next five years.

## (26) Material Cost

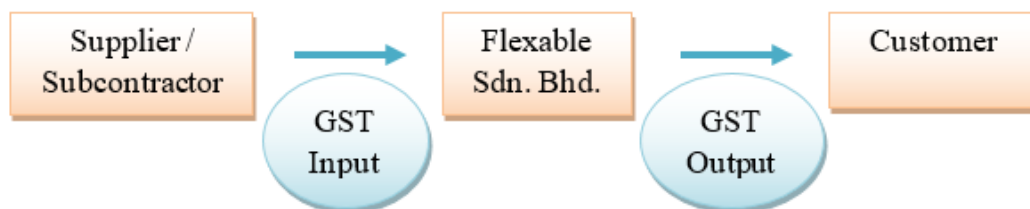
Table 8.23: Material List and Cost to Produce One unit of EXA FRAME

No.	Items	Price per unit (RM)
1.	Global Positioning System (GPS)	8.00
2.	Carbon Fibre Prepreg from Subcontractor	5.00
3.	EXA COVER from Subcontractor	13.00
	Total Material Cost per unit (included 6% GST):	26.00

Source: Developed for the research

Thus, the total material cost per unit of EXA FRAME is RM26 which has included 6% of GST.

## (27) Goods and Services Tax (GST)

Figure 8.3: Illustrations of Goods and Services Tax

Source: Developed for the research

The amount of sales and purchases for each year below are included 6% of GST. Thus, the amount of GST output and input for sales and purchases must be calculated by having the sales or purchase amount divided by 1.06 then multiplied by 0.06

\*Remark: to get each GST amount.  $[a] \div 1.06 \times 0.06$  or  $[b] \times 6\%$

Table 8.24: GST (rate 6%) Claim and Payable

Year	Item	Amount (RM)		GST Output (RM) [c]	GST Input (RM) [d]
		Included GST [a]	Without GST [b]		
2018	<b>Revenue</b>				
	Sales	927,300		52,488.68	
	(-)				
	<b>Expenditure</b>				
	Purchases	408,200			23,105.66
	3PL Inbound Logistics		4,082		244.92
	3PL Outbound Logistics		27,819		1,669.14
<b>Net GST Payable [c]-[d]:</b>				<b>27,468.96</b>	
2019	<b>Revenue</b>				
	Sales	1,206,300		68,281.13	
	(-)				
	<b>Expenditure</b>				
	Purchases	526,500			29,801.89
	3PL Inbound Logistics		5,265		315.90
	3PL Outbound Logistics		36,189		2,171.34
<b>Net GST Payable [c] - [d]:</b>				<b>35,992.00</b>	
2020	<b>Revenue</b>				
	Sales	1,809,600		102,430.19	
	(-)				
	<b>Expenditure</b>				
	Purchases	786,760			44,533.58
3PL Inbound Logistics		7,867.60		472.05	

	3PL Outbound Logistics		54,288		3,257.28
	<b>Net GST Payable [c] - [d]:</b>			<b>54,167.28</b>	
<b>2021</b>	<b>Revenue</b>				
	Sales	2,171,400		122,909.43	
	(-) <b>Expenditure</b>				
	Purchases	943,930			53,430
	3PL Inbound Logistics		9,439.30		566.36
	3PL Outbound Logistics		65,142		3,908.52
	<b>Net GST Payable [c] - [d]:</b>			<b>65,004.55</b>	
<b>2022</b>	<b>Revenue</b>				
	Sales	2,605,680		147,491.32	
	(-) <b>Expenditure</b>				
	Purchases	1,131,780			64,063.02
	3PL Inbound Logistics		11,317.80		679.07
	3PL Outbound Logistics		78,170.40		4,690.22
	<b>Net GST Payable [c] - [d]:</b>			<b>78,059.01</b>	

Source: Developed for the research

(28) The Corporate tax rate is 18% on the first RM500,000 and 24% for the balance in excess of RM500,000 in which that disclose in 2017 Malaysian Budget (Deloitte, 2017).

## (29) Estimated of Sales

Table 8.25: Estimated Sales Units for 2018-2022

Year Month	2018	2019	2020	2021	2022
Jan	750	1,100	1,850	2,400	2,850
Feb	850	1,200	1,400	1,750	2,300
Mar	1,080	1,800	3,206	3,800	4,600
Apr	1,000	1,455	2,580	2,800	3,400
May	950	1,300	1,700	2,055	2,700
June	950	1,300	1,700	2,055	2,700
July	950	1,250	1,350	1,750	2,100
Aug	1,000	1,250	1,350	1,750	2,100
Sept	920	1,100	1,209	1,530	1,878
Oct	905	1,100	1,465	2,200	2,500
Nov	2,850	3,400	5,800	6,800	7,600
Dec	3,250	3,850	6,550	7,300	8,700
<b>Total (Qty)</b>	<b>15,455</b>	<b>20,105</b>	<b>30,160</b>	<b>36,190</b>	<b>43,428</b>
<b>Total (RM)</b>	<b>927,300</b>	<b>1,206,300</b>	<b>1,809,600</b>	<b>2,171,400</b>	<b>2,605,680</b>

Source: Developed for the research

The peak selling months for EXA FRAME are November and December as the students are on the verge of starting school, so the estimated sales units for these two months are the highest over the whole year. Besides, there is more marketing efforts being contributed in March such as a series of advertising and promotional events take place, so the estimated sales units for that month tends to be medium. Apart from these three months of the particular year, sales unit estimation for

January is slightly higher than the remaining months. This might be due to the reason that after school starts, students will recognise that their school bag are heavy and will need this product.

Moreover, the sales for 2019 is estimated to increase 30% from sales of 2018. The estimated sales for 2020 is to be increased 50% from the sales of 2019. Next, the sales for 2021 and 2022 are predicted to increase about 20% from the sales of previous year respectively. Flexible will retain 10 units of finished products to serve as buffer stock to prevent any inventory shortages.

Besides, the selling price of one unit of EXA FRAME to the retailers is RM60 which is inclusive of packaging and logistics cost. This selling price is also included of 6% GST. Refer to Appendix U23 for the calculation of sales estimation, production rate, beginning and ending inventory of next five years.

#### (30) Quality Control- ISO Registration and Renewal Fee

Flexible is planning to apply for ISO certificate in the second year to ensure customers of the quality assurance towards our product. The certification from ISO can help gain the trust from the public about the product's quality. This certification is also an important aspect for the company's future expansion into foreign countries.

The registration fee of ISO 9001:2015 (whole package) and ISO 14001:2015 (whole package) are RM30,000 and RM50,000 respectively in the second year. However, the certificate renewal fee for ISO 9001: 2015 and ISO 14001:2015 are RM3,000 and RM5,000 respectively from third year onwards.

### 8.3 Pro Forma Income Statement (5 Years)

Financial Statement 8.1: Pro Forma Income Statement for 2018-2022

	2018 (RM)	2019 (RM)	2020 (RM)	2021 (RM)	2022 (RM)
Sales (excluded GST)	874,811.32	1,138,018.87	1,707,169.81	2,048,490.57	2,458,188.68
(-) COGS					
Beginning Inventory	NIL	3,250.00	3,900.00	3,380.00	3,250.00
Purchases (excluded GST)	385,094.34	496,698.11	742,226.42	890,500.00	1,067,716.98
(+) Carriage Inwards (excluded GST)	4,082.00	5,265.00	7,867.60	9,439.30	11,317.80
(-) Ending Inventory	3,250.00	3,900.00	3,380.00	3,250.00	2,782.00
Cost of Goods Sold	385,926.34	501,313.11	750,614.02	900,069.30	1,079,502.78
Gross Profit	488,884.98	636,705.76	956,555.79	1,148,421.27	1,378,685.90
<b>(-) Expenses</b>					
General Cost (excluded deposit items)	66,260.00	NIL	NIL	NIL	NIL
Business Renewal Fee	NIL	60.00	60.00	60.00	60.00
Patent Annual Fee	NIL	NIL	160.00	210.00	210.00
Rental	42,000.00	42,000.00	42,000.00	42,000.00	42,000.00
Utility	48,000.00	48,000.00	57,600.00	57,600.00	57,600.00
Telephone and Internet	1,440.00	1,440.00	1,440.00	1,440.00	1,440.00
Company Insurance	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00
Fire extinguisher maintenance	400.00	400.00	400.00	400.00	400.00
Marketing and Advertising	50,000.00	30,000.00	30,000.00	30,000.00	30,000.00
Research and Development	10,000.00	NIL	10,000.00	NIL	10,000.00
Training and Development	NIL	7,000.00	NIL	7,000.00	NIL
Lawyer Consultation Fee	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
Leasing Fee- Forklift	2,400.00	2,400.00	2,400.00	2,400.00	2,400.00
Leasing Fee- All in One Photocopy Machine	2,400.00	2,400.00	2,400.00	2,400.00	2,400.00
Machine Maintenance Cost	NIL	6,000.00	6,000.00	6,000.00	6,000.00
Vehicle Insurance	2,160.00	2,160.00	2,160.00	2,160.00	2,160.00
Van Maintenance Cost	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
Road Tax	350.00	350.00	350.00	350.00	350.00
Petrol	600.00	600.00	600.00	600.00	600.00
Salary	424,328.00	428,328.00	485,248.00	491,248.00	545,168.00
EPF	90,720.00	90,720.00	100,800.00	100,800.00	110,880.00
SOCSO	9,505.20	9,505.20	10,585.20	10,585.20	11,665.20
Sales Commission	9,273.00	12,063.00	18,096.00	21,714.00	26,056.80
Depreciation- Office Equipment	3,699.00	3,699.00	3,699.00	3,699.00	3,699.00
Depreciation- Vehicle	4,800.00	4,800.00	4,800.00	4,800.00	4,800.00
Depreciation- Machinery	42,000.00	42,000.00	42,000.00	42,000.00	42,000.00
Outsource cleaning service	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00
Outsource security service	13,200.00	13,200.00	13,200.00	13,200.00	13,200.00
3PL Outbound Logistics Charges (excluded GST)	27,819.00	36,189.00	54,288.00	65,142.00	78,170.40
Production Tools	5,969.00	7,343.00	10,249.00	12,070.00	14,380.00
ISO 9001:2015 Registration Fee	NIL	30,000.00	NIL	NIL	NIL
ISO 14001:2015 Registration Fee	NIL	50,000.00	NIL	NIL	NIL
ISO 9001:2015 Renewal Fee	NIL	NIL	3,000.00	3,000.00	3,000.00
ISO 14001:2015 Renewal Fee	NIL	NIL	5,000.00	5,000.00	5,000.00
	891,323.20	904,657.20	940,535.20	959,878.20	1,047,639.40
<b>Net Profit / Loss before Tax</b>	<b>-402,438.22</b>	<b>-267,951.44</b>	<b>16,020.59</b>	<b>188,543.07</b>	<b>331,046.50</b>
(+) Depreciation- Vehicle	4,800.00	4,800.00	4,800.00	4,800.00	4,800.00
Depreciation- Office Equipment	3,699.00	3,699.00	3,699.00	3,699.00	3,699.00
Depreciation-Machinery	42,000.00	42,000.00	42,000.00	42,000.00	42,000.00
	50,499.00	50,499.00	50,499.00	50,499.00	50,499.00
Taxable Income	-351,939.22	-217,452.44	66,519.59	239,042.07	381,545.50
(-) Corporate Tax (18% / 24%)	NIL	NIL	11,973.53	43,027.57	68,678.19
<b>Net Profit / Loss after Tax</b>	<b>-351,939.22</b>	<b>-217,452.44</b>	<b>54,546.06</b>	<b>196,014.50</b>	<b>312,867.31</b>
(-) Total Depreciation	50,499.00	50,499.00	50,499.00	50,499.00	50,499.00
<b>Net Profit / Loss</b>	<b>-402,438.22</b>	<b>-267,951.44</b>	<b>4,047.06</b>	<b>145,515.50</b>	<b>262,368.31</b>

Source: Developed for the research



## 8.4 Cash Flow Projection (5 Years)

### Financial Statement 8.2: Cash Flow Projection for 2018-2022

	2018 (RM)	2019 (RM)	2020 (RM)	2021 (RM)	2022 (RM)
Opening Cash Balance	NIL	230,049.74	20,470.34	105,685.21	343,721.02
<b>Cash In</b>					
Start-up Cash Available	491,510.00	NIL	NIL	NIL	NIL
Sales (included GST)	927,300.00	1,206,300.00	1,809,600.00	2,171,400.00	2,605,680.00
<b>Total Cash Available</b>	<b>1,418,810.00</b>	<b>1,436,349.74</b>	<b>1,830,070.34</b>	<b>2,277,085.21</b>	<b>2,949,401.02</b>
<b>Cash Out</b>					
Purchases (included GST)	408,200.00	526,500.00	786,760.00	943,930.00	1,131,780.00
Carriage Inwards (included GST)	4,326.92	5,580.90	8,339.65	10,005.66	11,996.87
Business Renewal Fee	NIL	60.00	60.00	60.00	60.00
Patent Annual Fee	NIL	NIL	160.00	210.00	210.00
Rental	42,000.00	42,000.00	42,000.00	42,000.00	42,000.00
Utility	48,000.00	48,000.00	57,600.00	57,600.00	57,600.00
Telephone and Internet	1,440.00	1,440.00	1,440.00	1,440.00	1,440.00
Company Insurance	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00
Fire extinguisher maintenance	400.00	400.00	400.00	400.00	400.00
Marketing and Advertising	50,000.00	30,000.00	30,000.00	30,000.00	30,000.00
Research and Development	10,000.00	NIL	10,000.00	NIL	10,000.00
Training and Development	NIL	7,000.00	NIL	7,000.00	NIL
Lawyer Consultation Fee	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
Leasing Fee- Forklift	2,400.00	2,400.00	2,400.00	2,400.00	2,400.00
Leasing Fee- All in One Photocopy Machine	2,400.00	2,400.00	2,400.00	2,400.00	2,400.00
Machine Maintenance Cost	NIL	6,000.00	6,000.00	6,000.00	6,000.00
Vehicle Insurance	2,160.00	2,160.00	2,160.00	2,160.00	2,160.00
Van Maintenance Cost	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
Road Tax	350.00	350.00	350.00	350.00	350.00
Petrol	600.00	600.00	600.00	600.00	600.00
Salary	424,328.00	428,328.00	485,248.00	491,248.00	545,168.00
EPF	90,720.00	90,720.00	100,800.00	100,800.00	110,880.00
SOCSO	9,505.20	9,505.20	10,585.20	10,585.20	11,665.20
Commission for Sales Representative	9,273.00	12,063.00	18,096.00	21,714.00	26,056.80
Outsource cleaning service	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00
Outsource security service	13,200.00	13,200.00	13,200.00	13,200.00	13,200.00
3PL Outbound Logistics Charges (included GST)	29,488.14	38,360.34	57,545.28	69,050.52	82,860.62
Production Tools	5,969.00	7,343.00	10,249.00	12,070.00	14,380.00
ISO 9001:2015 Registration Fee	NIL	30,000.00	NIL	NIL	NIL
ISO 14001:2015 Registration Fee	NIL	50,000.00	NIL	NIL	NIL
ISO 9001:2015 Renewal Fee	NIL	NIL	3,000.00	3,000.00	3,000.00
ISO 14001:2015 Renewal Fee	NIL	NIL	5,000.00	5,000.00	5,000.00
GST payable	NIL	27,468.96	35,992.00	54,167.28	65,004.55
Corporate Tax	NIL	NIL	NIL	11,973.53	43,027.57
<b>Total Cash Disbursement</b>	<b>1,188,760.26</b>	<b>1,415,879.40</b>	<b>1,724,385.13</b>	<b>1,933,364.19</b>	<b>2,253,639.61</b>
<b>Net Cash Flow</b>	<b>230,049.74</b>	<b>20,470.34</b>	<b>105,685.21</b>	<b>343,721.02</b>	<b>695,761.41</b>
Closing Cash Balance	230,049.74	20,470.34	105,685.21	343,721.02	695,761.41

Source: Developed for the research

## 8.5 Pro Forma Balance Sheet (5 Years)

Financial Statement 8.3: Pro Forma Balance Sheet for 2018-2022

	2018 (RM)		2019 (RM)		2020 (RM)		2021 (RM)		2022 (RM)	
	Acc. Depr	NBV	Acc. Depr	NBV	Acc. Depr	NBV	Acc. Depr	NBV	Acc. Depr	NBV
<b>Fixed Assets</b>										
Office Equipment (RM 36,990)	3,699.00	33,291.00	7,398.00	29,592.00	11,097.00	25,893.00	14,796.00	22,194.00	18,495.00	18,495.00
Vehicle (RM48,000)	4,800.00	43,200.00	9,600.00	38,400.00	14,400.00	33,600.00	19,200.00	28,800.00	24,000.00	24,000.00
Machinery (RM 280,000)	42,000.00	238,000.00	84,000.00	196,000.00	126,000.00	154,000.00	168,000.00	112,000.00	210,000.00	70,000.00
<b>Total Fixed Assets</b>		<b>314,491.00</b>		<b>263,992.00</b>		<b>213,493.00</b>		<b>162,994.00</b>		<b>112,495.00</b>
<b>Current Assets</b>										
Ending Inventory	3,250.00		3,900.00		3,380.00		3,250.00		2,782.00	
Cash	230,049.74		20,470.34		105,685.21		343,721.02		695,761.41	
Rental Deposit	7,000.00		7,000.00		7,000.00		7,000.00		7,000.00	
Telephone and Internet Deposit	240.00		240.00		240.00		240.00		240.00	
<b>Total Current Assets</b>	<b>240,539.74</b>		<b>31,610.34</b>		<b>116,305.21</b>		<b>354,211.02</b>		<b>705,783.41</b>	
<b>(-) Current Liabilities</b>										
GST Payable	27,468.96		35,992.00		54,167.28		65,004.55		78,059.01	
Corporate Tax	NIL		NIL		11,973.53		43,027.57		68,678.19	
<b>Total Current Liabilities</b>	<b>27,468.96</b>		<b>35,992.00</b>		<b>66,140.81</b>		<b>108,032.12</b>		<b>146,737.20</b>	
Working Capital		213,070.78		-4,381.66		50,164.40		246,178.90		559,046.21
		<b>527,561.78</b>		<b>259,610.34</b>		<b>263,657.40</b>		<b>409,172.90</b>		<b>671,541.21</b>
<b>Finance by:</b>										
<b>Equity</b>										
Capital	930,000.00		527,561.78		259,610.34		263,657.40		409,172.90	
(+/-)Net Profit / Loss	-402,438.22		-267,951.44		4,047.06		145,515.50		262,368.31	
Total Equity		<b>527,561.78</b>		<b>259,610.34</b>		<b>263,657.40</b>		<b>409,172.90</b>		<b>671,541.21</b>

Source: Developed for the research

## 8.6 Payback and Exit Strategy

### 8.6.1 Payback Period

Table 8.26: Net Present Value (NPV)

Year	Cash Flow (RM)	Accumulated Cash Flow	Discount Rate	(DR+1) <sup>t</sup>	Net Present Value (RM)
0	950,000	-950,000	3%	-	-950,000
1	230,049.74	-719,950.26	3%	1.03	223,349.26
2	20,470.34	-699,479.92	3%	1.0609	19,295.26
3	105,685.21	-593,794.71	3%	1.092727	96,716.94

4	343,721.02	-250,073.69	3%	1.125509	305,391.62
(a)		(b)			
5	695,761.41	445,687.72	3%	1.159274	600,169.94
	(c)				
				NPV	294,923.02

Source: Developed for the research

$$\begin{aligned}
 \text{Payback period} &= a + (b/c) \\
 &= 4 + (250,073.69 / 695,761.41) \\
 &= 4.36 \text{ years} \approx 4 \text{ years 4 months}
 \end{aligned}$$

## 8.6.2 Exit Strategy

### I. Liquidation

If Flexible faces huge losses and is unable to continue the business, liquidation strategy will be applied. Liquidation is an easier exit strategy for Flexible to end the business whereby all the assets and property of the company will be sold to interested parties based on the market value. Upon this strategy, the money received will be used to clear all the company's debt. The remainders of money will be divided among the shareholders.

### II. Merger

In case Flexible is having difficulties in continuing the business to survive in the market, but still wants its products to remain alive in the market. Thus, Flexible can consider the application of merger strategy by combining the company with other potential competitor's company into one entity to run the business. This strategy allows the company's products and ideas to get the opportunity to continue serving the customers.

## **9.0 CRITICAL RISK FACTORS**

### **9.1 Management Risks**

#### **9.1.1 Lack of Business Skills, Experience and Capabilities**

Young entrepreneurs are always filled with strong passion, enthusiasm and desire to achieve their targets or what is the best for the company. However, as a fresh management team, we may lack of relevant skills, experience and capabilities in managing the company and running the business well. We may not have adequate knowledge or skills in dealing with other business parties and inefficient in handling some uncertainties. Due to the lack of exposure to realities of the business world, we may make wrong decisions for certain unfamiliar situations or critical problems that arise. It will affect the operations of the company and place the company at a risky and vulnerable position too.

#### **9.1.2 Conflict among the Managers**

Everyone has different backgrounds, cultures and believes. Not everyone has the same way of practice in doing things or making decisions. Conflicts tend to arise when the managers have different opinions and disagreements towards a typical issue. If the conflicts or any negative disputes do not resolve for a long period, it will affect the management team and business operation effectiveness and efficiency. The disagreements might affect their relationship and desires to accomplish the company objectives together.

## **9.2 Marketing Risks**

### **9.2.1 Brand Recognition and Awareness**

Since our company is new into the market and industry, so there will be low brand recognition and awareness from customers. Customers may be unaware of the existence of a new company. Even if they are aware, they may be unfamiliar with our company products and brand name as compare to existing competitors' (either direct competitors or indirect competitors) products and brands. Customers will feel distrust towards product that they are inexperienced with and perceive low product quality. Brand recognition and awareness can enhance the company's competitiveness in the market as well as increase the level of sales. When there is low brand recognition and awareness for our product, it is difficult for us to compete with those established brands and this will affect company's sales revenue and profit in order to sustain in the future.

### **9.2.2 Advertising and Promotion**

As mentioned previously, this product target group is primary school children (age between 8 years old and 11 years old). However, the decider or purchaser of this product is mostly their parents or guardians. Thus, from this point of view, the company might face some difficulties or ambiguity in advertising that attracts these both groups simultaneously.

The company needs to invest money, time and effort for a successful advertisement. Besides, an effective promotion plan must be able to reach the customers. It is important to create messages that give an impact to the customers and their purchasing decisions. The uncertainty in this aspect could be incredibly high for us as a new company in the market. Without a proper planning, the advertising and promotion can be inefficient and incur high cost.

## **9.3 Operating Risks**

### **9.3.1 Raw Materials and Finished Goods Inconsistency**

Raw materials are the basic elements to produce finished goods. Raw materials inconsistency can be in terms of quality and quantity. Quality inconsistency refers to poor quality of raw materials such as defects, unreliability and non-durable. Quantity inconsistency occurs when the number of orders received differs from the order placed in which suppliers are unable to supply the raw materials with adequate quantity to support our company production.

Next, the raw materials inconsistency will directly affect the finished goods quality. Finished goods inconsistency might also be caused by the mistakes of employees in the production line or failure of quality checking. Finished goods inconsistency will reduce customers' confidence towards our products.

### **9.3.2 Business Disruption and System Breakdown**

The use of machineries for production will definitely have the risks of machinery failures and system breakdowns. These will affect the operations and business flow. Other than that, the water or electricity interruption within that area will also disrupt the business. Generally, the risks of business disruption and system breakdown will delay the product delivery to our customers which affects company's reputation.

### **9.3.3 Employees Management**

Employees are considered as key assets of a company as they contribute their knowledge and skills, but managing employees may be a critical task and it involves risks. Employees may be unfamiliar or facing difficulties in handling certain tools

or machineries during the production. Besides, it is normal that employees may be disloyal, so this is another risk for companies to manage. Recruiting new employees may require more time for them to learn and familiarise with the all operations and processes. Inability to manage the employees and overlooking their feelings or conditions may influence company's overall operations.

## **9.4 Financial Risks**

### **9.4.1 Low Cash Flow**

The company might suffer low cash flow especially in the first few years of commencement due to insufficient cash or improper financial plan. Worst case scenario, the company will face conditions where cash inflow is less than cash outflow. The huge start-up capital and high operations cost might place company at this risk. Next, it is critical when company does not have enough funds and insufficient cash from sales to cover all the operations cost. Low cash flow might place company at a critical situation. Thus, the need for sufficient cash is significant to make sure financial stability and for unforeseen circumstances.

### **9.4.2 Economic Condition**

A country's economic condition may affect the company's financial stability. The probabilities of economic downturn or inflation that lower customers' purchasing power might bring negative impact to company's business and investments. The Government's decision in term of laws and regulations might affect our company in setting price, consideration of imposed tax and so forth. Every department's activities will also be directly or indirectly affected by poor economic conditions.

## **9.5 Intellectual Property Infringement**

Intellectual property rights are infringed or breached when a work of human intelligent or product creation that protected by intellectual property laws is used, copied, imitated or exploited without having the proper permission from the person who owns those rights (European Union, 2017). The risks of intellectual property infringement for Flexible can be trademark infringements and counterfeit product. In term of trademark infringement, the company name and logo might be misused by third parties of the same industry. For example, the infringer creates a name or logo that is almost similar to a registered trademark that makes customers confused or is difficult to identify.

Besides, the possibilities of counterfeit products might occur in which a third party copied the product design and features or even provide more product features but using low quality standard raw materials to produce the product and lower the price. Some customers will not recognise the counterfeited products and may think that they come from the same company. Low quality counterfeited products that may harm customers will affect company's market share and product brand name. The intellectual property infringement will make the public and customers mistakenly believe in the imitated trademark, patent or product.

## **9.6 Contingency Plans**

### **9.6.1 Management Plan**

In order to deal with the problems of management team lacking of business skills, experience and capabilities, each member will need to continuously improve themselves and increase their self-values. The management team's employees are encouraged to attend programs, seminars or professional courses related to leadership, critical thinking, business administration and management. These can



assist them to enhance their knowledge and skills in making decisions and managing the business.

Flexible will plan and arrange some on job trainings that relevant to each department manager's job scope and task as new entrepreneurs are sure to lack experience. Thus, they must learn from their mistakes and take them as experiences. Through the gaining and cumulative of experiences, the management team can improve their abilities and capabilities in running the business effectively and successfully. Exchanging experiences and consultancy with other successful or professional companies is another practicable way.

Furthermore, conflict among managers can be minimized by undergoing team building or communication programs. Communication programs that increase the communication skills will indirectly avoid possible conflicts among managers. Proper discussion, freedom of speech with appropriateness and open mindedness should be practiced by the managers to reduce conflict. They must have a common goal in managing the organisation. The company objectives, missions, vision or any relevant guidance must be clearly stated in the company handbook as well as founder agreement.

### **9.6.2 Marketing Plan**

Generally, before setting up our new company, we need to conduct an in depth market research about the industry to understand the industry trend, the opportunities and threats as well as the competitors' strengths and weaknesses. Next, before launching a new product into the market, it is fundamental and important for the marketing department to conduct market analysis. Surveys are being carried out via questionnaires. This is a faster way to collect relevant information about customer opinions, preferences, needs and buying behaviours. It also indirectly informs the customers regarding the emergence of a new product and brand. The marketing department can consider some useful ways of primary and secondary research to collect adequate and real-time information.

Moreover, Flexible must build strong brand equity to increase the brand recognition and awareness. We may establish good and long-term relationship with suppliers, so that we can gather the information about competitors from the suppliers. All the information collected allow us to take corrective actions and able compete in the industry and market. Besides this, the selection of appropriate advertising media, use of suitable themes or advertisements, creation of good advertisement content and evaluation the cost of different advertising media are some techniques for successful advertising. The department will plan comprehensively and implement the marketing strategies to enhance the company and products competitiveness.

### **9.6.3 Operating Plan**

Firstly, raw materials inconsistency risks can be reduced by developing a strong and good relationship with suppliers and maintaining favourable company credit reputation. Flexible should try to meet all contractual obligations of suppliers. Based on this, suppliers are willing to supply the best quality raw materials in sufficient quantity with reasonable price on time. Communicate with the suppliers in advance when facing any problems in the raw materials ordering or receiving and financial problems in making payments. Flexible should also avoid making last minute orders that may bring trouble to suppliers. Thus, our company supply chain and production process will be smooth and efficient.

Next, the operations manager needs to construct a quality assurance plan properly and make sure that the employees in charge conducts the quality checking procedure of finished goods carefully, seriously and attentively. Based on the employees' performance, Flexible needs to arrange suitable training programs or send them for seminars regarding the handling of machineries and tools. Flexible will provide them training and development to improve their skills, familiarity and efficiency in operating the machineries. This will ensure that the employees are able to reduce the mistakes occurred in the production line.

In addition, the frequent maintenance of machineries on time can help prevent the risks of business disruptions and system breakdowns. Other than that, to respond with managing employees' risk, caring employees for long-term and buildign long lasting relationships with them is the key. Listening to employees' feedbacks and opinions as well as involve them to participate in some decision making can assist to increase their loyalty toward the company.

Besides, during the recruitment of new employees, practical and theoretical tests will be given to the potential candidates. Conducting these tests can examine and measure their capabilities and obtain skilled employees. This can cut down the time for them to learn, engage and fully familiarise with the machineries and operations.

#### **9.6.4 Financial Plan**

In order to counter financial risks, the related department must establish accounting and financial strategies considerably. They need to exploit a systematic system in recording company daily transactions in detail. The financial team is involved in calculating all the monetary values and profits of the company. A proper financial planning is important to ensure that the company has sufficient cash flow for operations, avoid deficit and increase profits.

Therefore, preparing budget by the accounting and financial department can provide guidance to forecast sales, purchasing of raw materials, production, cash receiving and cash disbursing for the coming years. It can avoid any unnecessary expenses too. Additionally, Flexible will try obtaining any investment opportunities, finding ways to fund sufficient capital and predict extra capital to cope with uncontrollable financial risks or economic conditions as well as unexpected circumstances.

### **9.6.5 Intellectual Property Protection**

Although, Flexible will register for trademark and patents, however, there will still be risks of unauthorised usage or imitation of intellectual property by competitors or other third parties in the future. In order to avoid risk that might confuse customers and bring down our company image, our company should consult intellectual property experts for advice, plan and devise infringement strategies carefully as well as understanding our country laws and regulations about intellectual property protection. Company can access and browse the Intellectual Property Corporation of Malaysia (MyIPO) website to refer the ways of preventing the invasion and to get up-to-date information.

### **9.6.6 Other Risks Plan**

The solution for Flexible to reduce the chances and risks of business failure is developing a solid business plan. The business plan serves as a roadmap for the company and entrepreneurs. It leads the company by providing description about what to do and the company's future directions. All the relevant contents in the business plan should be written clearly, carefully and attractively. A successful business plan may also serve to attract potential investors to invest in the company.

## REFERENCES

- Advanced Composite Materials*. (2017, July). Retrieved from [https://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aircraft/amt\\_aifrme\\_handbook/media/ama\\_Ch07.pdf](https://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/amt_aifrme_handbook/media/ama_Ch07.pdf)
- ASQ. (2017). *What is ISO 9001:2015 – quality management systems?*. Retrieved June 18, 2017, from <http://asq.org/learn-about-quality/iso-9000/iso-9001-2015/>
- Aurora Sport. (n.d.). *Prepreg carbon fibre motorcycle heat shield for Ducati in autoclave process*. Retrieved June 25, 2017, from <http://www.helmetsupplier.com/products/Prepreg-Carbon-Fibermotorcycle-heat-shield-for-Ducati-in-Autoclaveprocess.html#.WYLRhISGPiV>
- Bernama. (2016, June 4). 567 Children missing as of May: Bukit Aman. *New Straits Times*. Retrieved from <https://www.nst.com.my/news/2016/06/149579/567-children-missing-may-bukit-aman>
- Coaxsher. (2017). *Xvent technology*. Retrieved June 22, 2017, from <http://www.coaxsher.com/Articles.asp?ID=237>
- Deloitte. (2017). *Corporate tax rate 2017*. Retrieved from <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dtltax-corporate-tax-rates.pdf>
- EC21. (2017). *Prepreg carbon fibre fabrics*. Retrieved June 25, 2017, from [https://jkkitty.en.ec21.com/Prepreg\\_Carbon\\_Fiber\\_Fabrics--4054793\\_4055104.html](https://jkkitty.en.ec21.com/Prepreg_Carbon_Fiber_Fabrics--4054793_4055104.html)
- European Union. (2017). *What is an IP infringement?*. Retrieved May 23, 2017, from <https://www.iprhelpdesk.eu/kb/3188-what-ip-infringement>

Google Trends. (2017). *Backpack*. Retrieved June 12, 2017, from <https://trends.google.com/trends/explore?date=2012-01-01%202016-12-31&geo=MY&q=backpack>

*Innovative Composite Engineering*. (2015). Retrieved July 26, 2017, from <http://www.innovativecomposite.com/what-is-carbon-fiber/>

Kim, W. C., & Mauborgne, R. (2015). *Blue ocean strategy: How to create uncontested market space and make the competition irrelevant*. Boston, Massachusetts: Harvard Business Review Press.

Land & Property. (2016). *Batu Gajah, Bemban 3, Perak*. Retrieved June 10, 2017, from <http://www.landnproperty.com/index.php/properties-for-rent/batugajahbemban-3-perak>

Lazada. (2016). *Tracer GPS locator wallet key pet finder*. Retrieved July 31, 2017, from <http://www.lazada.com.my/40-tracer-gps-locator-wallet-key-pet-finderblue-9949675.html>

Malaysian Digest. (December 9, 2014). *School bags in Malaysia – A ‘heavy’ issue*. Retrieved July 26, 2017, from <http://www.malaysiandigest.com/frontpage/282main-tile/531743school-bags-in-malaysia-a-heavy-issue.html>

Mega Staff Sdn Bhd. (2016). *Foreign workers employment specialist*. Retrieved July 15, 2017, from <http://www.megastaff.com.my/>

MorningKashmir.com. (2016, June 10). *Heavy school bags take toll on health of children: DAK*. Retrieved June 26, 2017, from <http://www.morningkashmir.com/lifestyle/health-fitness/heavy-school-bags-take-toll-health-children-dak-608.html>

MyIPO. (e.d.). *Patent & fees*. Retrieved June 25, 2017, from <http://www.myipo.gov.my/en/patent-form-fees/?lang=en>

Rahim, R. (2016, March 24). Nearly 4,000 Malaysian children went missing in 2014 and 2015. *The Star*. Retrieved August 1, 2017, from <http://www.thestar.com.my/news/nation/2016/03/24/nearly4kmissingchildren-in-last-two-years/>

Samakow, J. (2014). *The dangers of heavy backpacks- and how kids can wear them safely*. Retrieved June 25, 2017, from [http://www.huffingtonpost.com/2014/08/27/what-heavy-backpacks-are-doing-to-kids-bodies-\\_n\\_5700485.html](http://www.huffingtonpost.com/2014/08/27/what-heavy-backpacks-are-doing-to-kids-bodies-_n_5700485.html)

Shari, P. M. (2017). *What are advantages & disadvantages of an open-plan office Space?*. Retrieved June 18, 2017, from <http://smallbusiness.chron.com/advantages-disadvantages-openplan-officespace-80288.html>

Small Medium Enterprise Development Bank Malaysia Berhad. (2017). *Financing program for women entrepreneur (WEP-LEAP)*. Retrieved July 15, 2017, from <http://www.smebank.com.my/wep-leap/>

SME Business Malaysia.com. (2017). *Types of Government loans that Malaysia SME can benefit from applying*. Retrieved June 1, 2017, from <http://smebusinessmalaysia.com/types-of-government-loans-that-malaysia-sme-can-benefit-from-applying/>

The Edge Property. (2017). *Batu Gajah Perak property for sale or rent condo & commercial*. Retrieved June 18, 2017, from <https://www.theedgeproperty.com.my/content/batu-gajah-perak-property-sale-or-rent-condo-commercial>

The Star Online. (2011, November 20). *Pupils abusing free e-book*. Retrieved August 4, 2017, from <http://www.thestar.com.my/news/nation/2011/11/20/pupils-abusing-free-ebooks/>

*What Is MY Spiritual Animal*. (2017). Retrieved July 26, 2017, from <https://whatismyspiritanimal.com/spirit-totem-power-animal-meanings/mammals/koala-bear-symbolism-meaning/>



**APPENDICES**

**Appendix U1: Location of Physical Plant**



**BATU GAJAH, BEMBAN 3, PERAK 3,500 MYR /Per month**

**PROPERTY INFORMATION:**  
 Address : Bemban 3, Batu Gajah, PERAK  
 Category : Factory/Warehouse  
 Type : For rent

**PROPERTY INFORMATION:**  
 ~ New Factory / Warehouse for RENT @ Batu Gajah, Bemban 3 Industrial Estate please call: STEVEN 018-954 0680 \* Good location. Proximity Ipoh-Lumut highway \* Ready equipped with 3-phase wiring and water supply Keen tenant, feel free to contact me @ 018-9540680 for further detail about this property. Tq

**BUILDING INFORMATION:**  
 Built on : 0  
 Remodeled on : 0  
 Number of Floors : 0  
 Floor area (Lower) : 0.00  
 Floor area (Main Level) : 0.00  
 Floor area (Upper) : 0.00  
 Floor area (Total) : 0.00

**LAND INFORMATION:**  
 Total acres : 0.00  
 Square feet : 4800.00  
 Lot Size : 0.00

**CONVENIENCE:**

**PROPERTY AGENT:**  
 Name : **Muhammad Asyrof Nasir**

**Appendix U2: Name Card of Chiropractor that Our Group Go for Interview**



**Appendix U3: Letter of Permission to Conduct Survey from FGO**



**UNIVERSITI TUNKU ABDUL RAHMAN**

Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

18<sup>th</sup> April 2017

**To Whom It May Concern**

Dear Sir/Madam

**Permission to Conduct Survey**

This is to confirm that the following students are currently pursuing their *Bachelor of Business Administration (Hons) Entrepreneurship* program at the Faculty of Business and Finance, Universiti Tunku Abdul Rahman (UTAR) Kampar Campus(Perak).

I would be most grateful if you could assist them by allowing them to conduct their research at your institution. All information collected will be kept confidential and used only for academic purposes.

The students are as follows:


<u>Name of Student</u>	<u>Student ID</u>
Loh Zhang Chee	14ABB06745
Lim Liew Jiun	14ABB07715
Lim Sze Kee	14ABB06733
Tan Ying Ying	14ABB07335
Wong Fong Theng	15ABB01216

If you need further verification, please do not hesitate to contact me.

Thank you.

Yours sincerely

  
 .....  
 Ms Ng Yin Kuan  
 Head of Department,  
 Faculty of Business and Finance  
 Email: ngyk@utar.edu.my

  
 .....  
 Ms Sai Mei Ling  
 Supervisor  
 Faculty of Business and Finance  
 Email: saiml@utar.edu.my

Address: Jalan Sg. Long, Bandar Sg. Long, Cheras, 43000 Kajang, Selangor D.E. Postal Address: P O Box 11384, 50744 Kuala Lumpur, Malay sia  
 Tel: (603) 9086 0288 Fax: (603) 9019 8868 Homepage: <http://www.utar.edu.my>

**Appendix U4: Interview with Doctor Lim Shu Jiann**



**UNIVERSITI TUNKU ABDUL RAHMAN**

Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

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Lim Sze Kee	14ABB06733
Tan Ying Ying	14ABB07335
Wong Fong Theng	15ABB01216

If you need further verification, please do not hesitate to contact me.

Thank you.

Yours sincerely

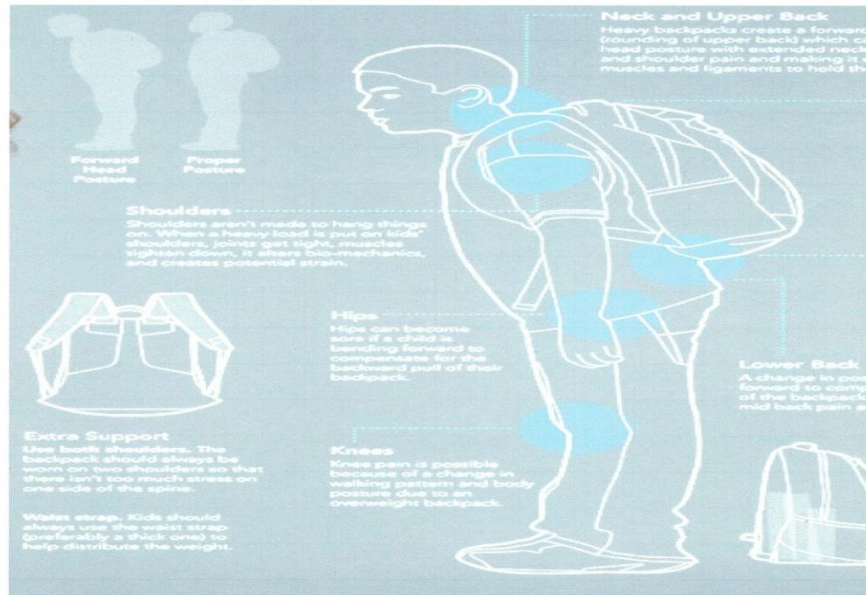
  
 .....  
 Ms Ng Yin Kuan  
 Head of Department,  
 Faculty of Business and Finance  
 Email: ngyk@utar.edu.my

  
 .....  
 Ms Sai Mei Ling  
 Supervisor  
 Faculty of Business and Finance  
 Email: saiml@utar.edu.my

  
 Lim SHU JIANN  
 COOPERATOR


Address: Jalan Se. Long, Bandar Se. Long, Cheras, 43000 Kajang, Selangor D.F. Postal Address: P.O Box 11384, 50744 Kuala Lumpur, Malaysia

From the interview with Dr Lim Shu Jiann, we get the information as below:



Human body works as a whole unit, weight will transfer from one part to another part of the body when we carry backpack. While carrying heavy backpack, most commonly affected areas are neck, upper back, and lower back. Weight bearing joints like hip and knee joints are highly affected as well. Besides that, the positioning of the backpack may be resulting in poor posture. Most healthcare professionals recommend backpack weight range from 10-15% of student's body weight.

From Doctor Lim's opinion, the direct relation of the backpack and its burden on shoulder is the position of the backpack. For example, if primary student place the backpack high up at thoracic (upper back) region, the most stressful portion will be at the upper back. If the backpack is positioned at the waist area, most of the weight will be distributed to lower trunk.

  
Lim Shu Jiann  
Chiropractor  
B. Sc. (Hons) Chiropractic, IMU




On the other hand, the size of the backpack may become one of the factors which may affect the body posture. The size of backpack, its compartment and how primary student place the books in the backpack are other criteria that one should concern about. For example, the heaviest books should be closest to the trunk. Furthermore, the ideal backpack size is based on their torso length.

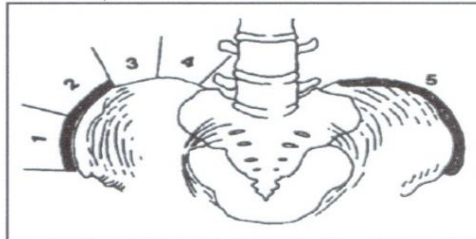
If the backpack is much smaller than torso length, the backpack will be placed in the upper back, and much bigger backpack will be putting excessive stress onto their body.

The width of the backpack straps should be wide and comfortable to prevent localized pressure on the particular muscles, nerve or blood vessels of the shoulders. Comfortable width of straps should be used.

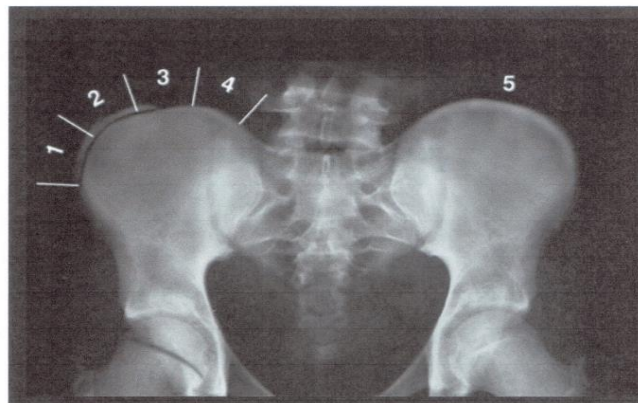
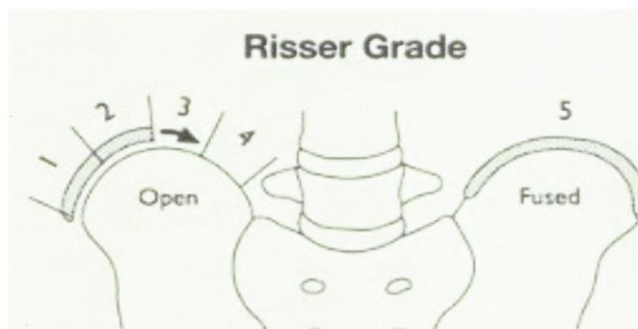
The common consequences of inappropriate use of backpack are poor posture, loss of natural cervical lordosis (curve), and muscle dysfunction.

Lastly, Doctor Lim explained that physical maturity is at its' peak during growth spurt, at the average age of 10-15 years old. It characterized by sexual maturity, rapid increase in height, weight, and body composition. The other indirect measurement of skeletal maturity is through X-ray image of the hip bones. It is measured by Risser's grading system from stage 0-5. During growth spurt, heavy backpacks may affect student's posture, especially in students who are diagnosed with scoliosis, an abnormal lateral curve of the spine.

  
 Lim Shu Jiann  
 Chiropractor  
 B. Sc. (Hons) Chiropractic, IMU



**Figure 1.**  
The Risser stages. The iliac crest is divided into the four parts. The apophysis developed from anterior to posterior moving from stage 1 to stage 4. Stage 0 is when the apophysis has not appeared and stage 5 is when the apophysis has fused to the iliac crest.



  
Lim Shu Jiann  
Chiropractor  
B. Sc. (Hons) Chiropractic, IMU





**Appendix U5: Interview with Doctor Perabu from Wong Medical Centre**



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18<sup>th</sup> April 2017

**To Whom It May Concern**

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If you need further verification, please do not hesitate to contact me.

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Yours sincerely

  
 .....  
 Ms Ng Yin Kuan  
 Head of Department,  
 Faculty of Business and Finance  
 Email: ngyk@utar.edu.my

  
**WONG MEDICAL CENTRE**  
 14 & 16, JLN LAPANGAN SIBER 1,  
 BANDAR CYBER, 31350  
 IPOH, PERAK.

  
 .....  
 Ms Sai Mei Ling  
 Supervisor  
 Faculty of Business and Finance  
 Email: saiml@utar.edu.my

Address: Jalan Sg. Long, Bandar Sg. Long, Cheras, 43000 Kajang, Selangor D.E. Postal Address: P O Box 11384, 50744 Kuala Lumpur, Malaysia

**Interview at Wong Medical Centre**

**Is it true that students should carry bags no more than 10% of their body weight?  
As it will affect their backbone and muscle?**

**Will there be other parts or muscles that will be affected as well?**

Yes, depending on their age and weight. It also depends on the way they carry their bag. Some students like to carry their bags using only one strap on one side of the body. This should be avoided because it causes more tension to one side of the shoulder than the other. Students should avoid single strap bags as well. Some loosen their bags' straps that their bags reach their buttocks, and this pulls back the weight. Thus, this results in the backbone having more tension.

Usually, long term effects that can be seen are on the back and neck. From standard one, primary students, their bones and muscles are at their growing period and yet to be matured. When heavy weights are added onto their body, although they can carry the weight, but their spines and muscles will tend to be slightly deformed. Then, their hips and knees will adjust following their deformed spines. This is why some people's feet tend to turn inward or outward when standing or walking. Of course, this may also be genetically caused. But the primary reason is due to long term heavy bag loads.

Another contributing factor is the students' physics. Students of the same age may not have the same weight and strength. Underweight and skinny students who carry heavy bags will have chances of having scoliosis over time.

**Will a waist belt/ strap help distribute approximately 80% of the weight of the bag?**

Actually, the most important thing is to keep the bag as close to the body as possible, because this prevents the weight from pulling backwards.

  
**WONG MEDICAL CENTRE**  
14 & 16, JLN LAPANGAN SIBER 1,  
BANDAR CYBER, 31350  
IPOH, PERAK.

**If the distances between the two shoulder straps are too wide or too tight, will this affect the cervical muscle?**

There is a possibility. If serious, clavicle (collarbone) pain will occur. And, the nerves around that area will be compressed. This causes nerve problems, muscles to be stiff, spasm, tingling, and burning sensation.

**Is it true that we must carry bags that have the same length as our torso length?**

Yes, of course. It is good to have an adjustable function.

**When does a child's spine start to grow and most likely what age does a child have a growth spurt that we need to take caution of?**

Actually, from age 1 to around 6 years old, it is just the cartilage that is formed. Then at the age of 8 to 10, the children's bones are fully recovered, but all the ligaments and muscles are not strong enough. As I said earlier, if they carry more than 10% of their body weight, it will cause deformation of the spine. So the muscles should be taken care of during this stage. Even for adults with fully matured muscles, it does not mean they can carry a lot of weight. When the body is not used to such weight, injuries can happen as well.

The bone (spine) is not like a stick, it is moveable, which is why you can bend forward, backwards and sideways. All the muscles are supported by the ligaments. Muscles, joints and ligaments are all linked together. So, when one side of the body carries more weight, the muscles are pulled and tension is on the muscles.

**Which type of bag frame would be more suitable, curved or straight?**

Both have their pros and cons. For the curved frame, of course it would be better as it follows the curvature of the spine. But, the problem would be to ensure that it is adjustable for different lengths. On the other hand, the straight frame would be suitable for everyone.

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14 & 16, JLN LAPANGAN SIBER 1,  
BANDAR CYBER, 31350  
IPOH, PERAK.

**Would thicker or thinner back padding be the more suitable choice?**

Of course thicker padding, because it provides more comfort and support.

**Males and females have different growing stages. Will their age affect the bone?**

Actually, both males and females from age 7 (standard 1) to age 12 (standard 6) have the same growth in bone. After standard 6, their bones will grow accordingly; males will be stronger than females.

**Would males or females have higher chances of being affected?**

With very slight difference, females will have slightly higher chances. This is because females do not have as much muscle strength and mass than males. Another reason may also be because females are more discipline than males. Males would not properly wear both straps of the bag.

**Based on our research, it is said that the hip belt can carry 80% of the bag's weight and the sternum strap helps with 20% of the weight. Is this true?**

Yes

**If students wear just the hip belt and ignore the sternum (chest) strap, will this have any affect?**

The hip belt provides extra support for the students. Students should make sure to strap on the chest strap. It would be no use if students do not properly strap on the chest strap, even if they have the hip belt on. So, the education and discipline is a concern.

**How should the chest strap be worn so that it does not cause discomfort to the students?**

It should be worn according to the chest level. Strap on the chest strap when inhaling to ensure maximum chest size

**WONG MEDICAL CENTRE**  
14 & 16, JLN LAPANGAN SIBER 1,  
BANDAR CYBER, 31350  
IPOH, PERAK.

**We decided to add on a panel-like support at the bottom of the bag frame. Do you think this help reduce the weight of students' bag?**

Yes.

**Since children are active by nature, their bags tend to shake when they move around. Will this exert more pressure on their shoulders?**

Yes.

**If we add on a crossed strap that holds the students' bag in place, do you think this will help with the anti-shaking function?**

There is a possibility, because it adds as an extra support.

**Since students' bags are full of books, we figured to enable them hang their water bottle on the side of the hip belt? Will this have any effect? What suggestions would you make?**

The weight on one side of the body will be heavier. So, there is a possibility that the imbalance weight will affect the way they carry their bag.

**Will the action of lifting up school bags using one arm harm students' waist muscle?**

Yes. Improper lifting up of heavy school bags can injure the waist. Besides the waist, the neck and shoulder may also have risks of being injured. Your bones, muscles, and joints might be strained.

**WONG MEDICAL CENTRE**  
14 & 16, JLN LAPANGAN SIBER 1,  
BANDAR CYBER, 31350  
IPOH, PERAK.



## **Appendix U6: Survey Question for Parent**

**UNIVERSITI TUNKU ABDUL RAHMAN**



Faculty of Business and Finance

### **BACHELOR OF BUSINESS ADMINISTRATION (HONS) ENTREPRENEURSHIP FINAL YEAR PROJECT**

Dear respondent, we are undergraduate students under Bachelor of Business Administration (Hons) Entrepreneurship, University Tunku Abdul Rahman. We would be most obliged if you could kindly allow us to conduct the survey for our Final Year Project purpose. Your co-operation will be greatly appreciated and contribute tremendously to our education. All the information that you disclose to us will be strictly used for research purpose only and will be kept private and confidential. Thank you for your participation.

Product Description: Our product is called EXA FAME. It comes with features that help distribute the weight of primary children's school bags and keep them close to the body. The product also has GPS that enable to track and trace the position of the primary children.

#### **Section A: Demography**

Age:

- Below 20     21-30     31-40     41-50     Above 50

Gender:

- Male                       Female

Race:

- Malay                       Chinese                       Indian                       Others: \_\_\_\_\_

**Section B: Parents' awareness about school bag burden towards their child's physical body and concept as well as buying preferences.**

1. Do you check the contents of your child's school bag before they go to school?  
 Yes  
 No
  
2. Are you aware that your child's school bag is too heavy?  
 Yes  
 No
  
3. Are you aware that overweight bag burden may affect your child's body posture?  
 Yes  
 No
  
4. Have you ever received complaints about school bag weight from your child?  
 Yes  
 No
  
5. Will you purchase a product that will help to reduce your child's school bag burden?  
 Yes  
 No



6. If yes, will you purchase EXA FRAME?
- Yes
  - No
7. What is the feature that you expect on EXA FRAME?
- Affordable Price
  - Quality
  - Style/ Design
  - Comfort
  - Functional
8. Which channel do you prefer to buy EXA FRAME?
- Online
  - Retail stores
  - Book store
  - School supplies store
9. If online, which websites do you prefer purchasing from?
- Company official website
  - Facebook
  - Lazada
  - Lelong.com
  - Other: \_\_\_\_\_
10. How much are you willing to spend on EXA FRAME?
- RM 50 and below
  - RM 51 - RM 100
  - RM 101 - RM 151
  - RM 151 and above

**Appendix U7: Survey Question for Student**

**UNIVERSITI TUNKU ABDUL RAHMAN**



Faculty of Business and Finance

**BACHELOR OF BUSINESS ADMINISTRATION (HONS)**

**ENTREPRENEURSHIP**

**FINAL YEAR PROJECT**

Dear respondent, we are undergraduate students under Bachelor of Business Administration (Hons) Entrepreneurship, Universiti Tunku Abdul Rahman. We would be most obliged if you could kindly allow us to conduct the survey for our Final Year Project purpose. Your co-operation will be greatly appreciated and contribute tremendously to our education. All the information that you disclose to us will be strictly used for research purpose only and will be kept private and confidential. Thank you for your participation.

**Section A: Demography**

Age:

- 8                       9                       10                       11

Gender:

- Male                                       Female

Race:

- Malay                       Chinese                       Indian                       Others: \_\_\_\_\_

---

**Section B: Students' awareness of school bag burden towards their physical body.**

1. Which floor do you study in?

- Ground floor
- 1st floor
- 2nd floor
- 3rd floor

2. What type of backpack do you carry to school bag?

- Tote
- Single strap bag



Two strap bag



Wheeled school bag



3. How do you usually carry your school bag?
  - One or both straps on one shoulder
  - Straps on both shoulders
  - Rolling on floor
  
4. Do you feel that your school bag is too heavy?
  - Yes
  - No
  
5. Do you arrange your school bag before goes to school?
  - Yes
  - No
  
6. Have you ever experience back, shoulder or neck pain?
  - Yes
  - No
  
7. If yes, which part of your body feels uncomfortable due to carrying heavy school bag? (Answer can be more than one.)
  - Neck
  - Shoulders
  - Upper back
  - Mid-back
  - Lower back
  
8. How often do you experience back, shoulder, or neck pain?
  - Few times a year
  - Few times a month
  - Few times a week
  - Everyday
  - Always

9. Do you visit a doctor regarding your pain?

- No
- 1-2 times
- 3-5 times
- More than 5 times

10. Do you make any complaints regarding your school bag overload to your teachers, school or parents?

- Yes
- No

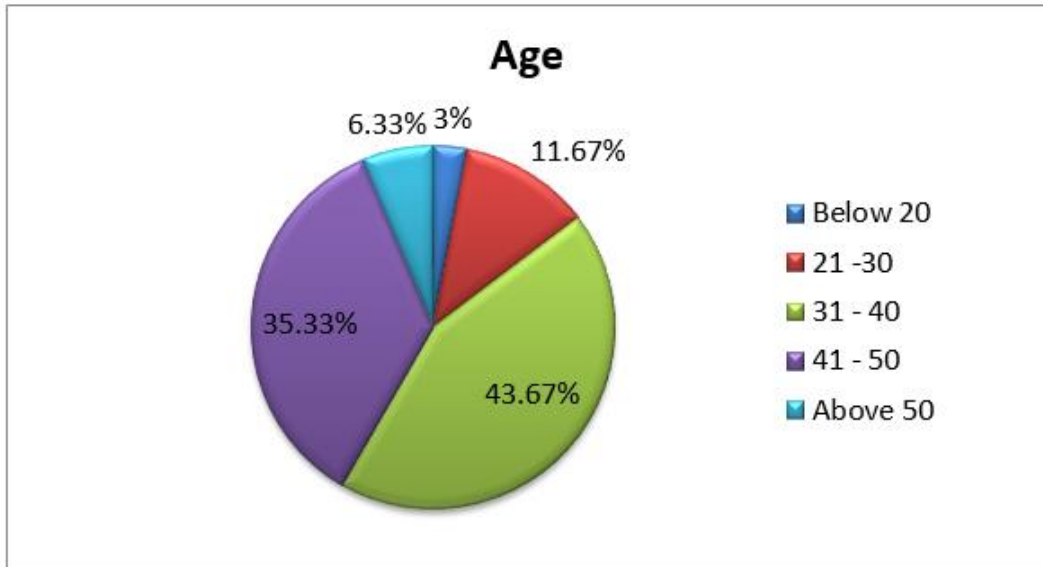
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## Appendix U8: Market Research Data

### Market Research Data: Survey to Parent

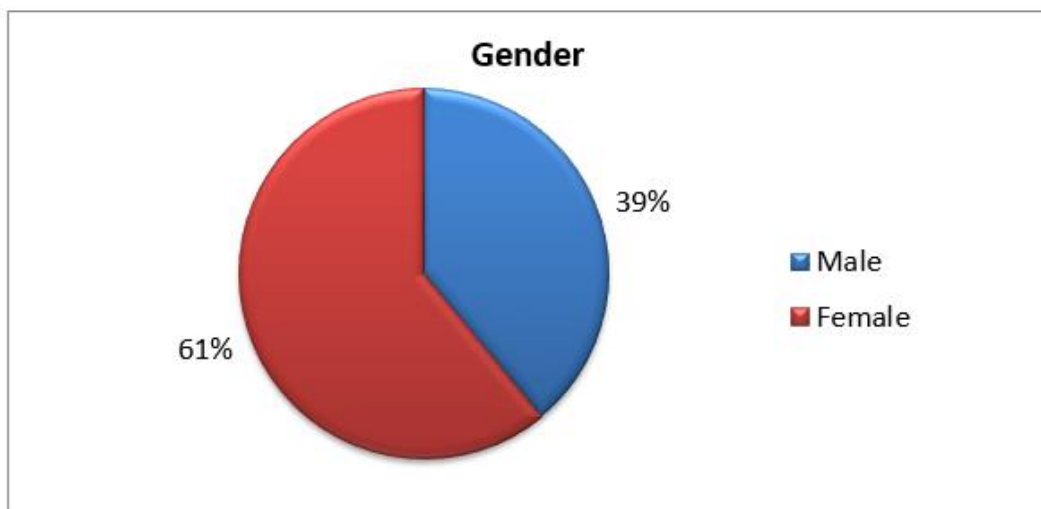
#### Section A: Demography

Age



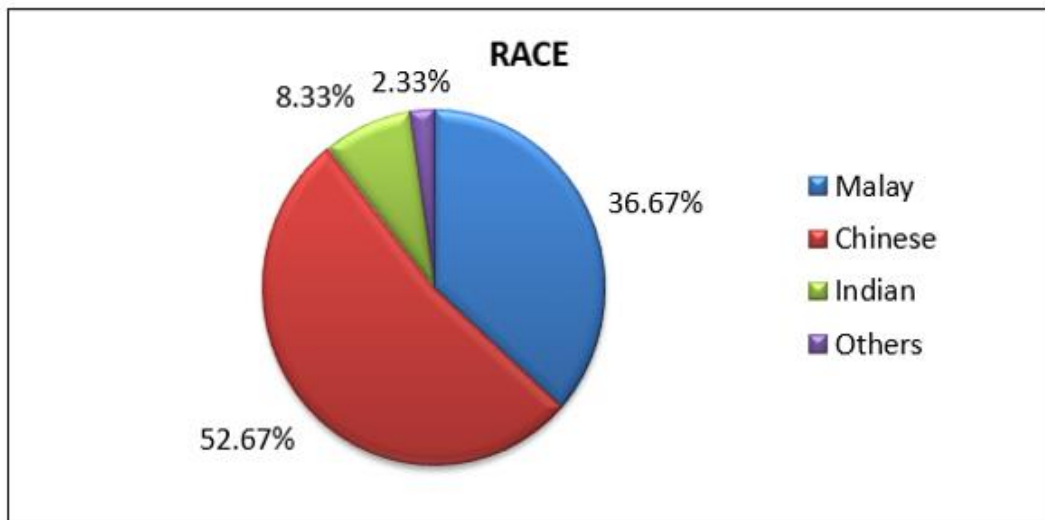
Source: Developed for the research

Gender



Source: Developed for the research

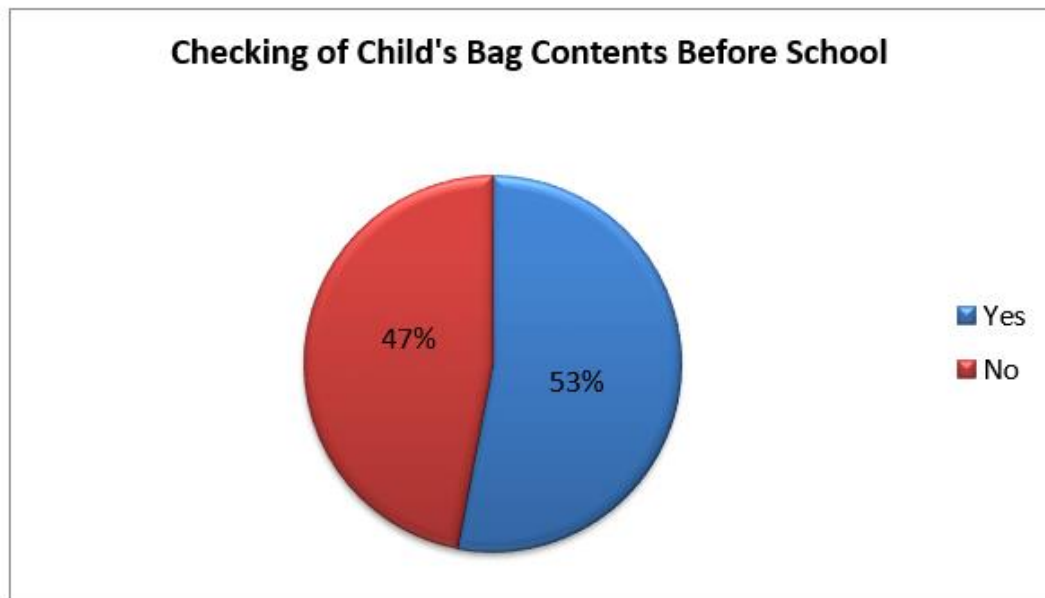
Race



Source: Developed for the research

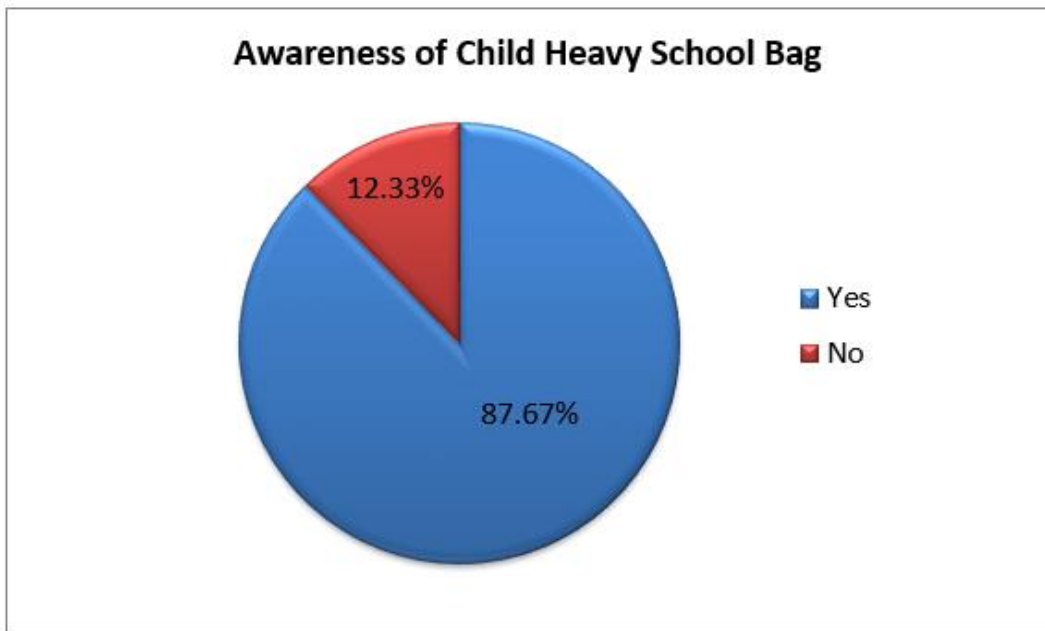
Section B: Parents' awareness about school bag burden towards their child's physical body and concept as well as buying preferences.

1. Do you check the contents of your child's backpack before they go to school?



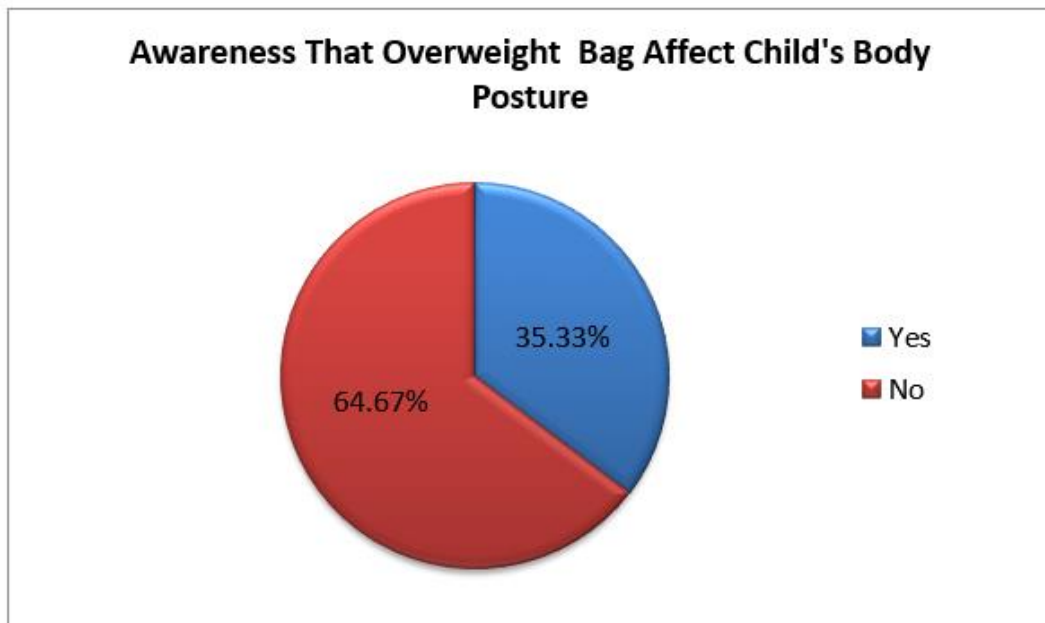
Source: Developed for the research

2. Are you aware that your child's school bag is too heavy?



Source: Developed for the research

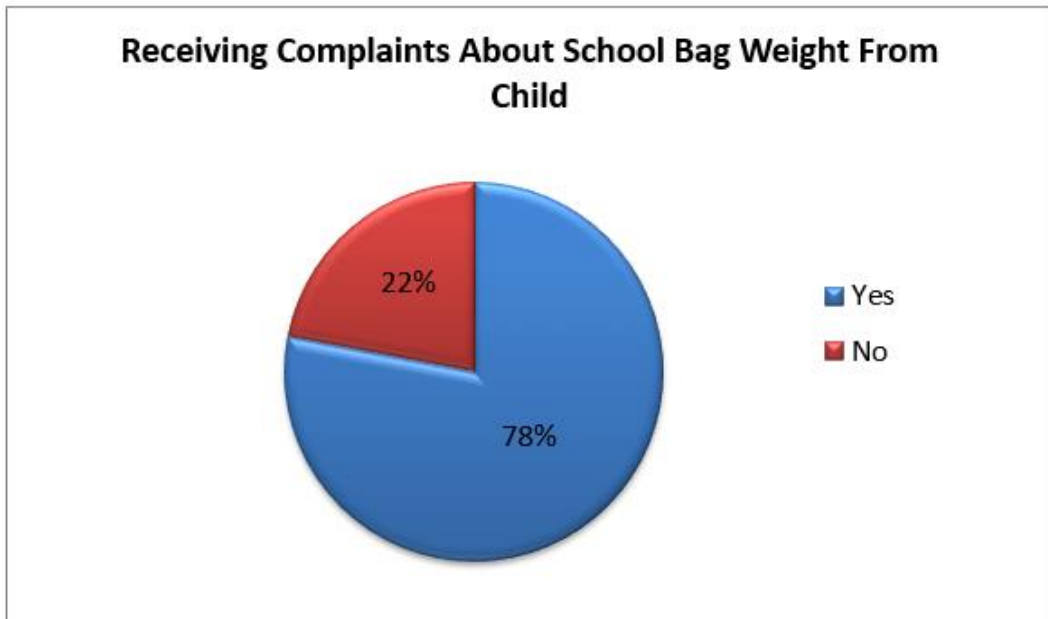
3. Are you aware that overweight bag burden may affect your child's body posture?



Source: Developed for the research

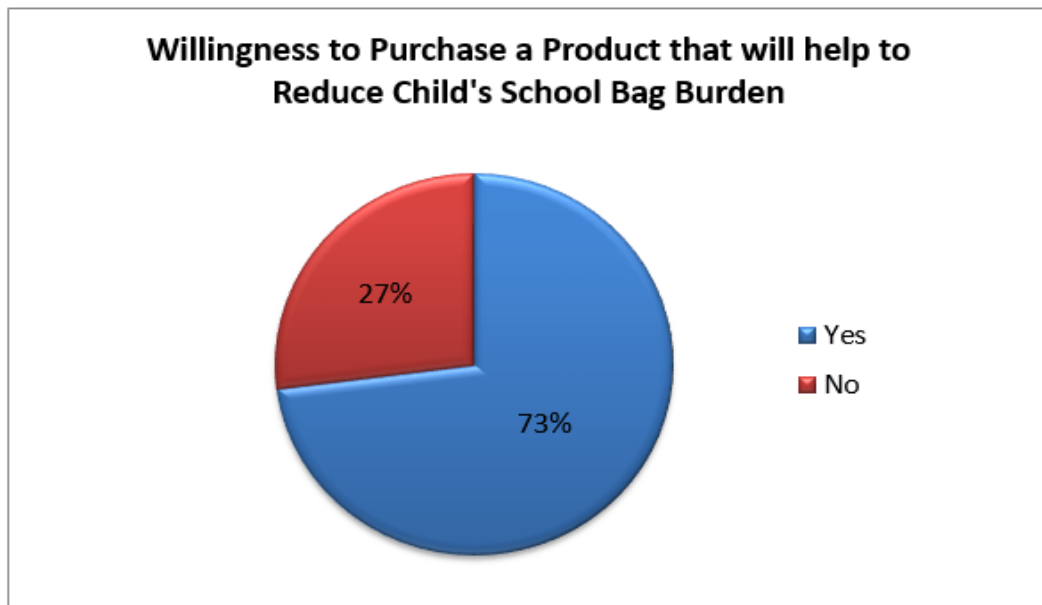


4. Have you ever receive complaints about school bag weight from your child?



Source: Developed for the research

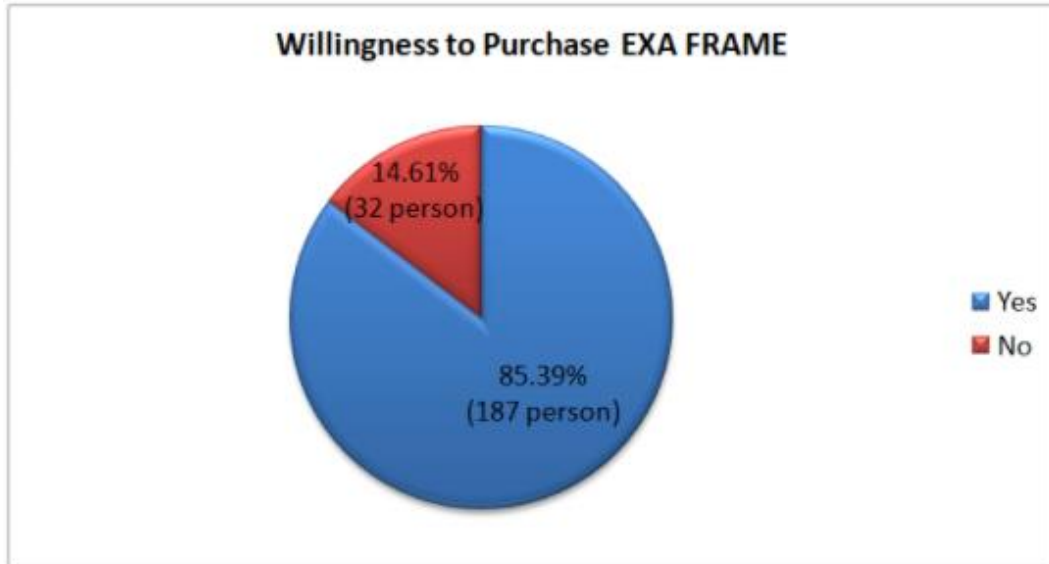
5. Will you purchase a product that will help to reduce your child's school bag burden?



Source: Developed for the research

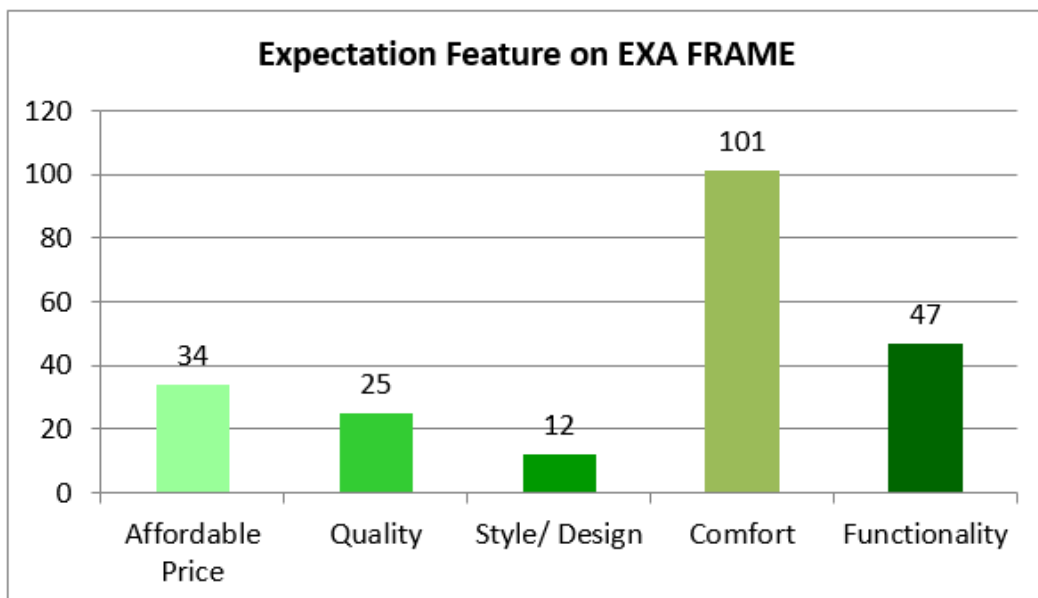
\*For question 6 until question 10 is based on the result from question 5. It is among the total of 219 person who answer yes for question 5.

6. If yes, will you purchase EXA FRAME?



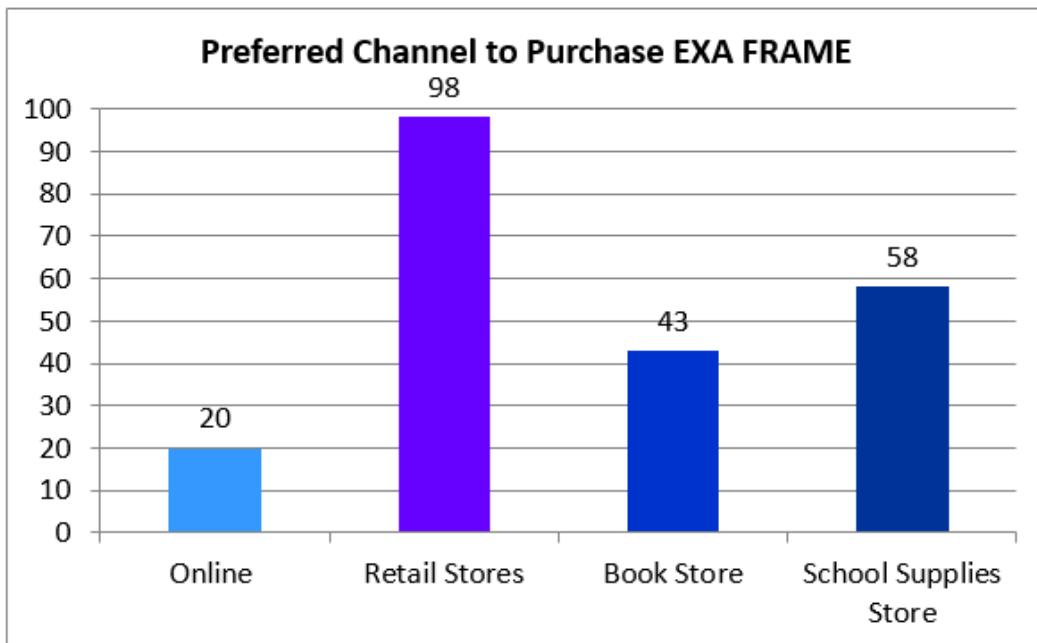
Source: Developed for the research

7. What is the feature that you expect on EXA FRAME?



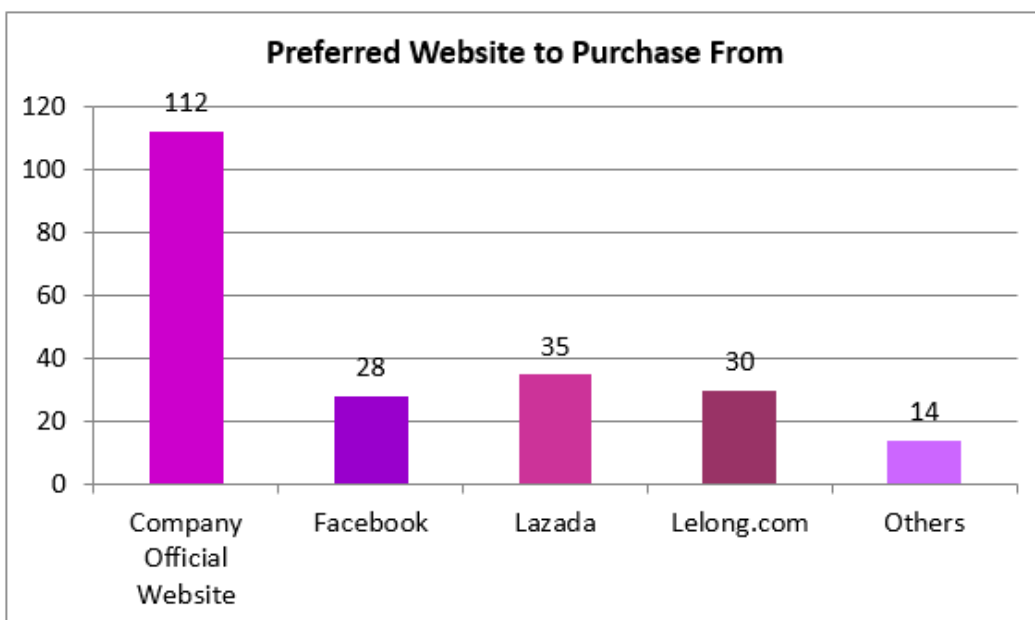
Source: Developed for the research

8. Which channel do you prefer to buy EXA FRAME?



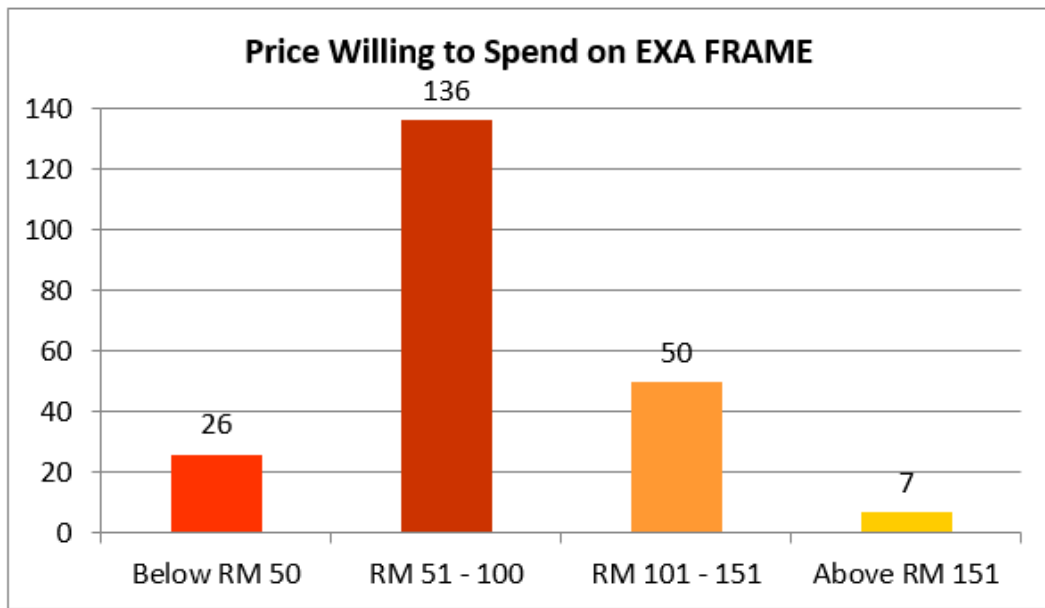
Source: Developed for the research

9. If online, which websites do you prefer purchasing from?



Source: Developed for the research

10. How much are you willing to spend on EXA FRAME?



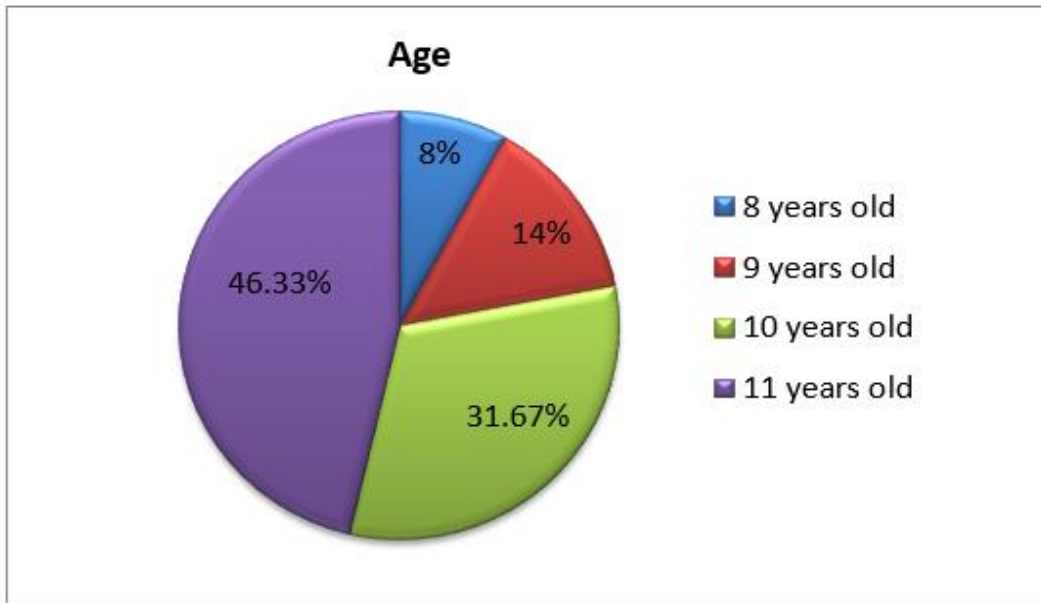
Source: Developed for the research

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Market Research Data: Survey to Students

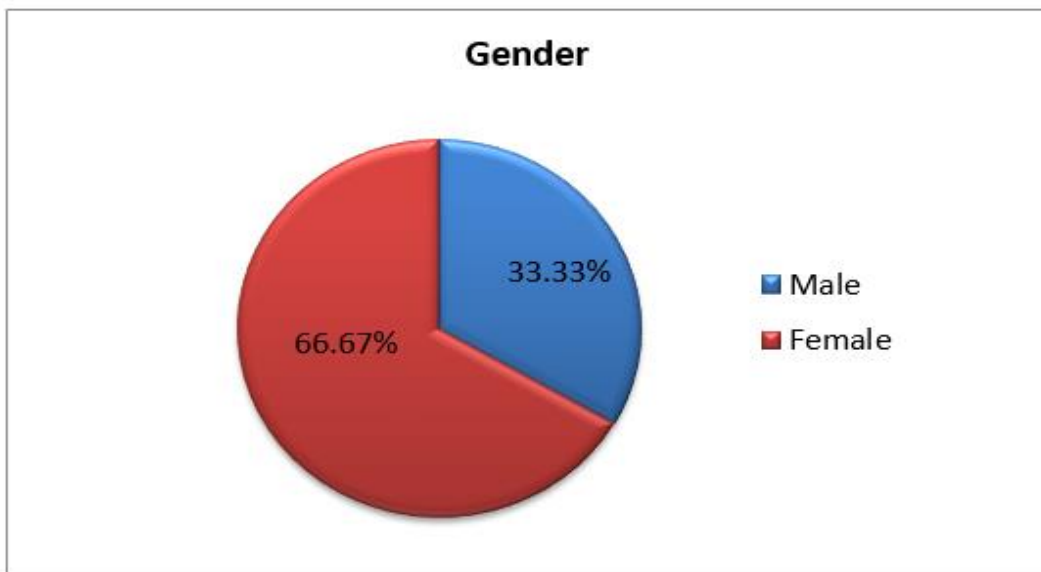
Section A: Demography

Age



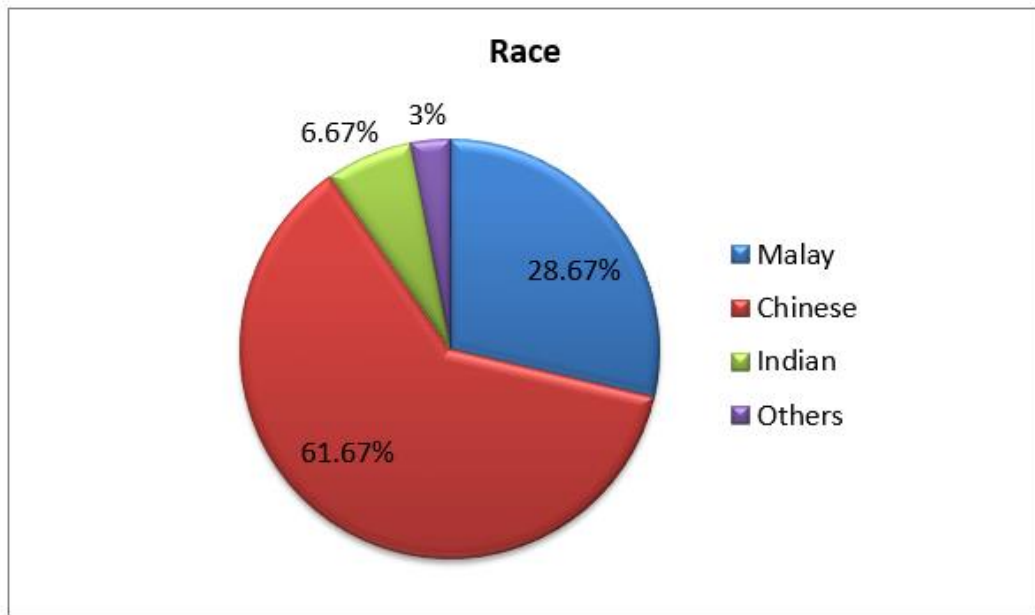
Source: Developed for the research

Gender



Source: Developed for the research

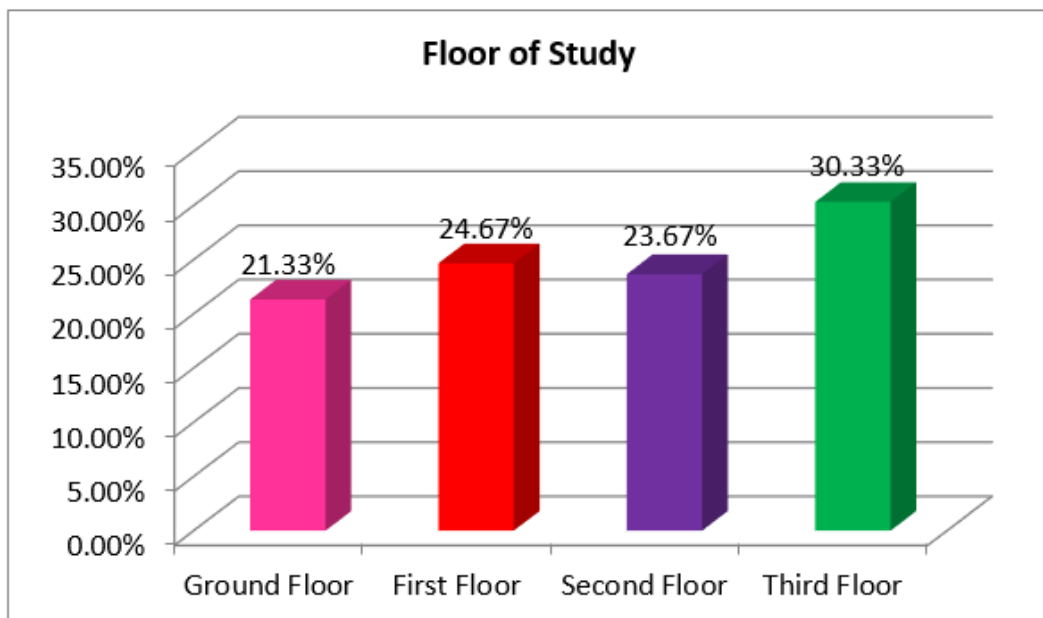
Race



Source: Developed for the research

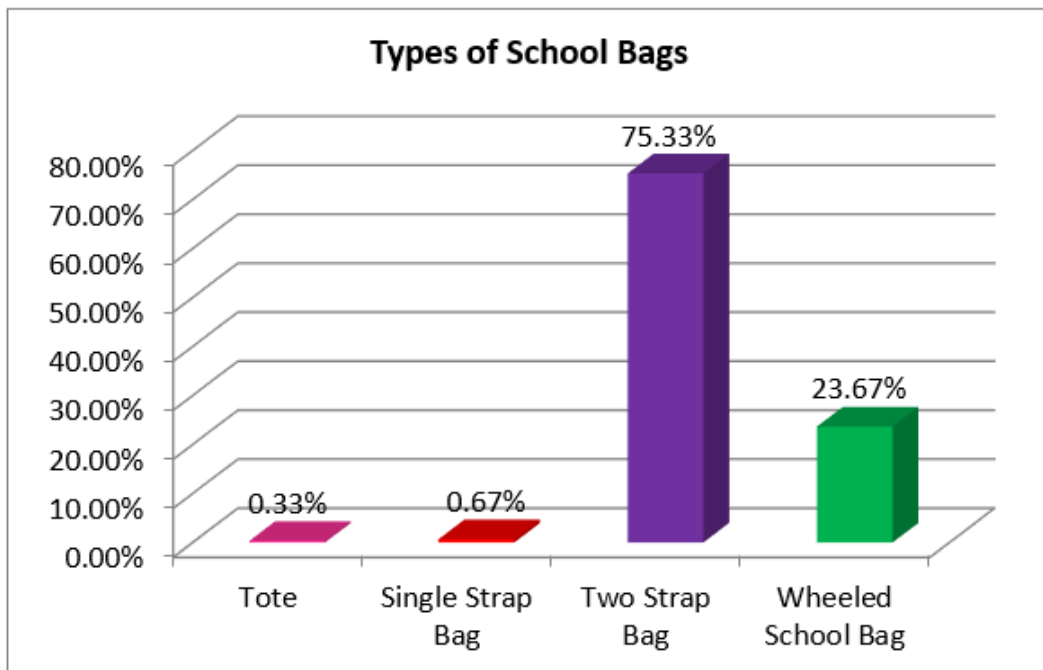
Section B: Students' awareness of school bag burden towards their physical body.

1. Which floor do you study in?



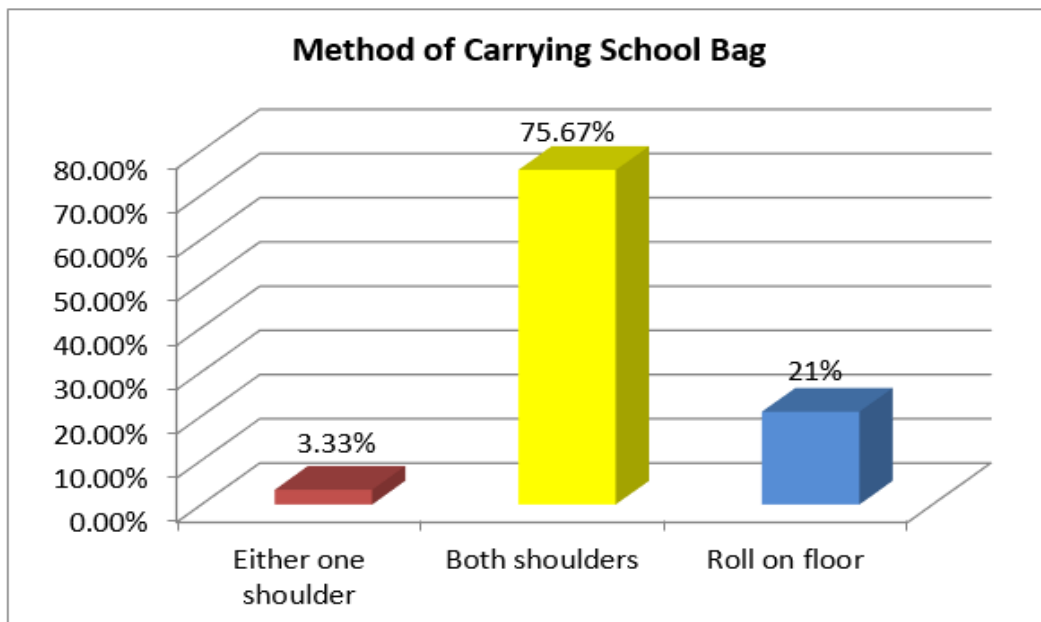
Source: Developed for the research

2. What type of school bag do you carry to school?



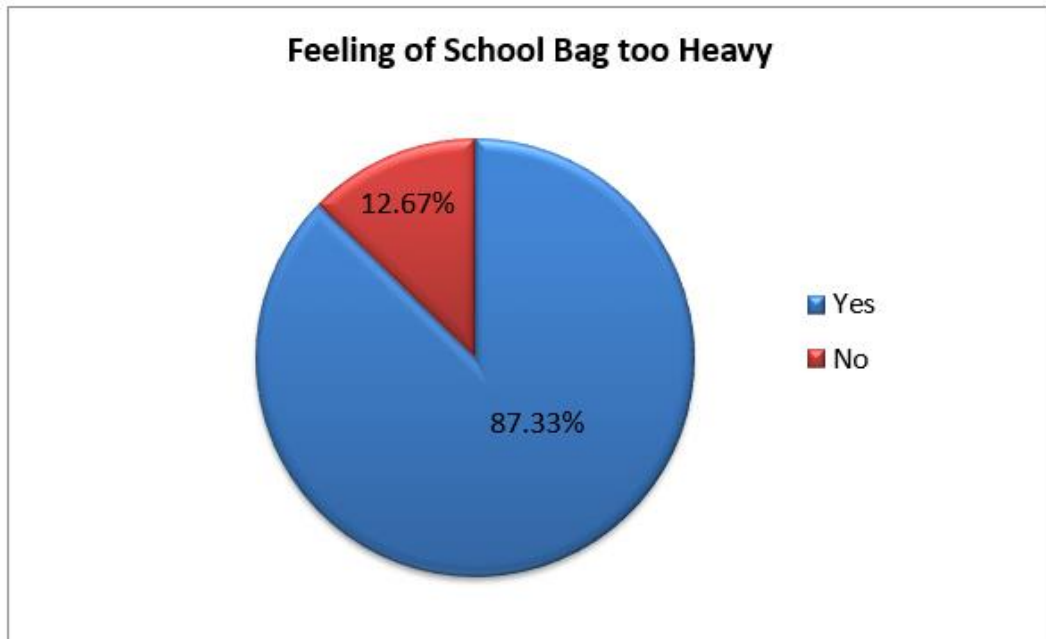
Source: Developed for the research

3. How do you usually carry your school bag?



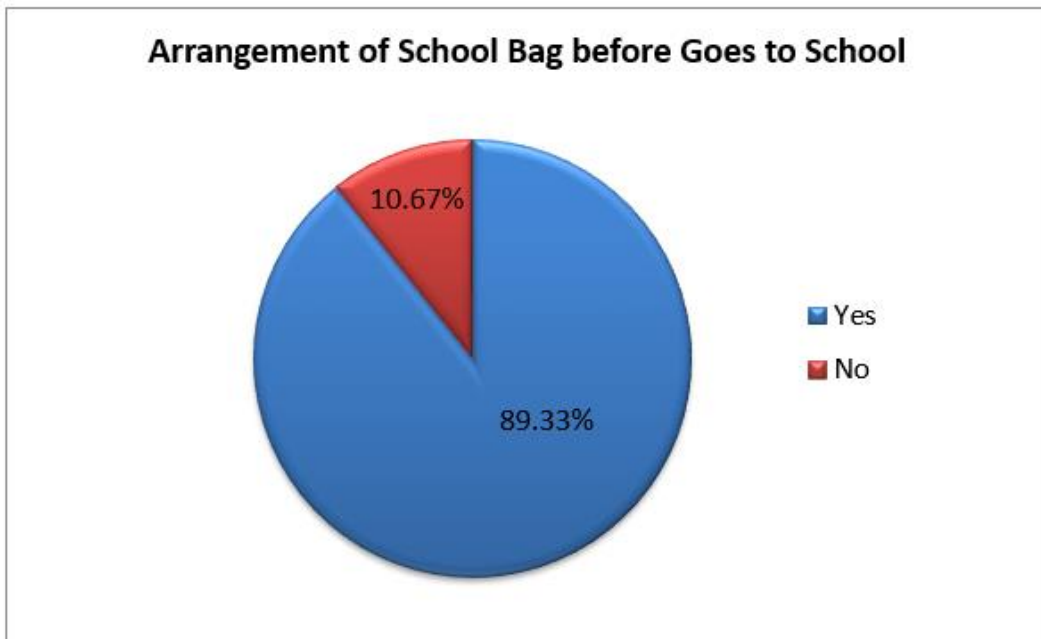
Source: Developed for the research

4. Do you feel that your school bag is too heavy?



Source: Developed for the research

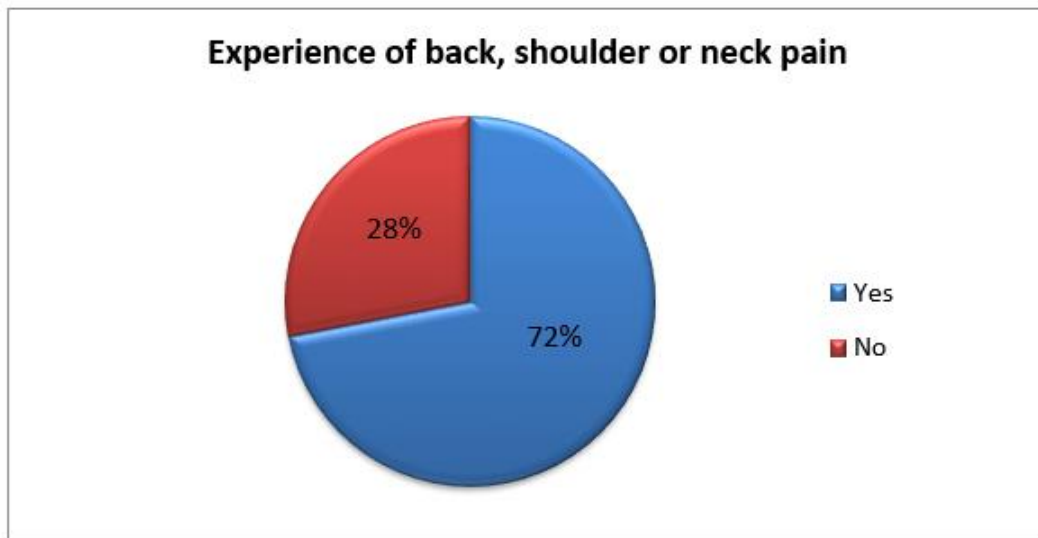
5. Do you arrange your school bag before goes to school?



Source: Developed for the research



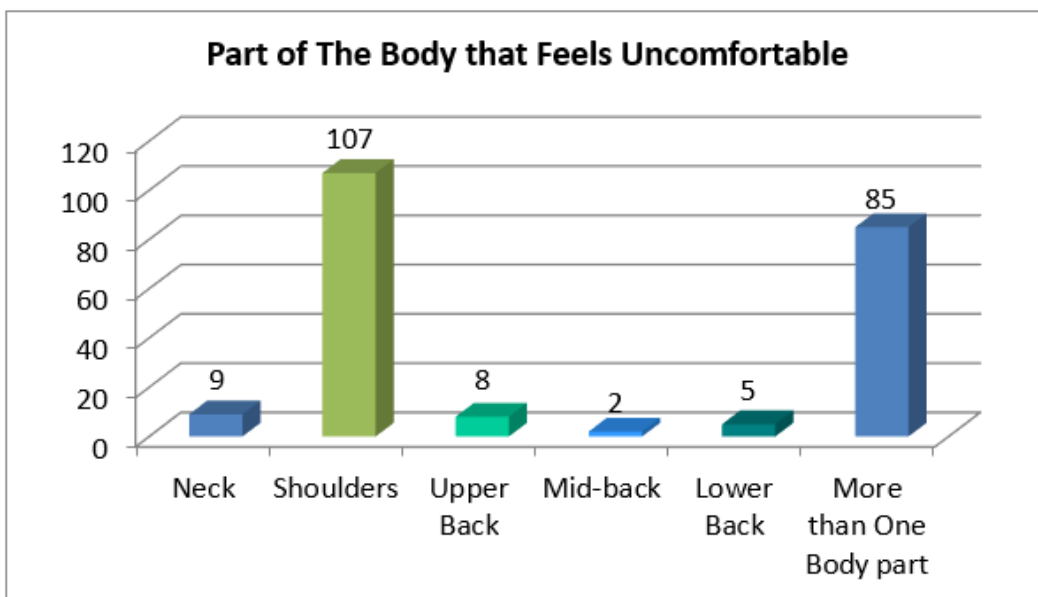
6. Have you ever experience back, shoulder or neck pain?



Source: Developed for the research

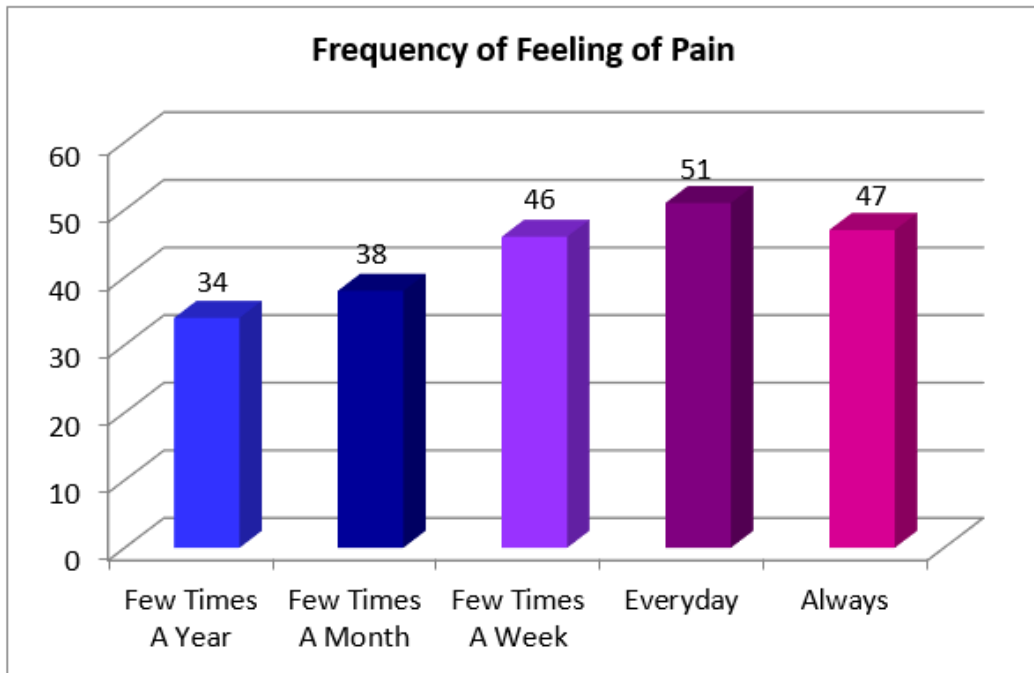
For question 7 until question 10 is based on the result of question 6. It is among the total of 216 person who answer yes for question 6.

7. If yes, which part of your body feels uncomfortable due to carrying heavy school bag? (Answer can be more than one.)



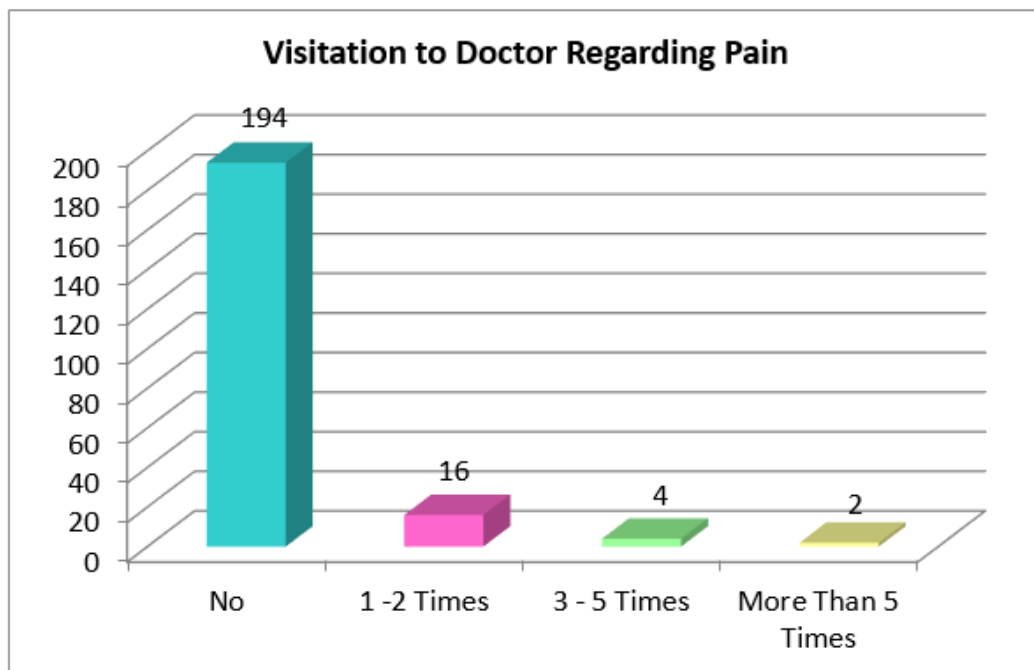
Source: Developed for the research

8. How often do you experience back, shoulder, or neck pain?



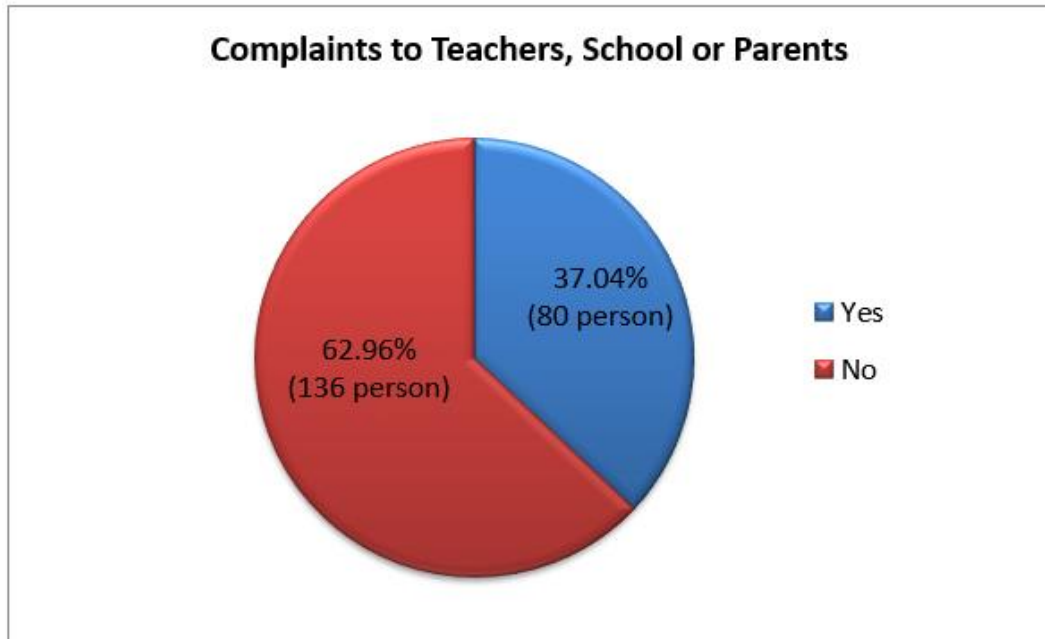
Source: Developed for the research

9. Do you visit a doctor regarding your pain?




Source: Developed for the research

10. Do you make any complaints regarding your school bag overload to your teachers, school or parents?



Source: Developed for the research







**Appendix U9: Office Equipment, Machinery and Vehicle**

Office Equipments	
Internet Modem	
Security (CCTV and Alarm System)	
Business card	
Thumbprint machine	
Fire extinguisher	
First Aid Kit	



<p>Steel Lockers</p>	
<p>Office Cupboard</p>	
<p>Office Table</p>	
<p>Work Table</p>	
<p>Conference Table</p>	
<p>Work Chair</p>	


Office Chair	
Executive Chair	
Conference Chair	
Desktop Computer	
Laptop	
Reception Counter	


<p>Recycle bin</p>	
<p>Dustbin</p>	
<p>Office Phone</p>	
<p>Stationery</p>	
<p>Water Dispenser</p>	
<p>Refrigerator</p>	

<p>Kitchen Cabinet</p>	
<p>Uniform (T-shirt)</p>	
<p>Hand Pallet</p>	
<p>Storage Rack (Medium)</p>	
<p>Forklift (Lease)</p>	
<p>All in one Photostat Machine (Lease)</p>	







<p>Projector</p>	
<p>Projector Screen</p>	

<p>Machinery</p>	
<p>Fully Automated Moulding Machine</p>	


<p>Vehicle</p>	
<p>Van- 2015 Chery Transcom 2.0 (M)</p>	

**Appendix U10: Production Tools**

Production Tools	
Thermosetting Resin (Per Kg)	
Mould Release (Per Kg)	
Hand Tools (Scissors, Cutters, and Knives)	
Cotton Glove	
Pallet	


<p>Carton Box</p>	
<p>Stretch Film (Roll)</p>	
<p>Plastic Packaging</p>	
<p>Carton Sealing Tape (Roll)</p>	

**Appendix U11: Business Registration Form (Form A)**

 SURSEKUTERAJAYA DIVISION OF MALAYSIA SURABAYA CORPORATION OF MALAYSIA		<b>BORANG A</b> <b>PERCUMA</b>
<b>PENDAFTARAN PERNIAGAAN</b> KAEDAH-KAEDAH PENDAFTARAN PERNIAGAAN 1957 (KAEDAH 3)		
<b>SILA TANDAKAN (✓) DI PETAK BERKENAAN DAN LENGKAPKAN MAKLUMAT DENGAN HURUF BESAR</b> (*Ruangan wajib diisi)		
NAMA SENDIRI	Menggunakan nama sendiri seperti di dalam MYKAD/MYFR sebagai nama perniagaan.	<input type="checkbox"/>
NAMA TRED	Menggunakan nama perniagaan yang diraka atau selain nama di MYKAD/MYFR sebagai nama perniagaan.	<input type="checkbox"/>
NO. TILUJUKAN <small>(Untuk kegunaan pejabat)</small>	<input style="width: 100%;" type="text"/>	
<b>MAKLUMAT PERNIAGAAN</b>		
*NAMA PERNIAGAAN	<input style="width: 100%;" type="text"/>	
*TARIKH MULA BERNIAGA	<input style="width: 100%;" type="text"/>	
*PERJANJIAN PERKONGSIAN	TIADA <input type="checkbox"/> ADA <input type="checkbox"/> TARIKH <input style="width: 100%;" type="text"/>	
<small>(Nyatakan bentuk dan tempoh perjanjian)</small>		
*ALAMAT <small>(P.O. Box tidak dibenarkan)</small>	<input style="width: 100%;" type="text"/>	
BANDAR	<input style="width: 100%;" type="text"/>	
POSKOD	<input style="width: 100%;" type="text"/>	
ALAMAT SURAT MENYURAT <small>(Jika berlainan dari alamat di atas)</small>	<input style="width: 100%;" type="text"/>	
BANDAR	<input style="width: 100%;" type="text"/>	
POSKOD	<input style="width: 100%;" type="text"/>	
NO. TELEFON	<input style="width: 100%;" type="text"/>	E-MAIL <input style="width: 100%;" type="text"/>
<b>*JENIS PERNIAGAAN YANG DIJALANKAN</b>		
<input style="width: 100%; height: 15px;" type="text"/> <input style="width: 100%; height: 15px;" type="text"/> <input style="width: 100%; height: 15px;" type="text"/> <input style="width: 100%; height: 15px;" type="text"/> <input style="width: 100%; height: 15px;" type="text"/> <input style="width: 100%; height: 15px;" type="text"/> <input style="width: 100%; height: 15px;" type="text"/> <input style="width: 100%; height: 15px;" type="text"/> <input style="width: 100%; height: 15px;" type="text"/> <input style="width: 100%; height: 15px;" type="text"/> <input style="width: 100%; height: 15px;" type="text"/>		
<b>ALAMAT CAWANGAN (Jika ada, P.O. Box tidak dibenarkan)</b>		
ALAMAT <small>(P.O. Box tidak dibenarkan)</small>	<input style="width: 100%;" type="text"/>	
POSKOD	<input style="width: 100%;" type="text"/>	
ALAMAT <small>(P.O. Box tidak dibenarkan)</small>	<input style="width: 100%;" type="text"/>	
POSKOD	<input style="width: 100%;" type="text"/>	
<b>1/2</b>		


PENDAFTARAN PERNIAGAAN		
*MAKLUMAT PEMILIK (Isian nama seperti di dalam MYKAD/MYPR)		
NAMA PEMILIK	<input style="width: 100%;" type="text"/>	
NO. MYKAD/MYPR	<input style="width: 60%;" type="text"/>	NO. K/P <small>(Lama)</small>
TARIKH LAHIR	<input style="width: 60%;" type="text"/>	JANTINA L <input type="checkbox"/> P <input type="checkbox"/>
KERAKYATAN	WARGANEGARA <input type="checkbox"/> PENDUDUK TETAP <small>(Nyatakan negara asal)</small> <input type="checkbox"/>	<input style="width: 60%;" type="text"/>
BANGSA	MELAYU <input type="checkbox"/> CINA <input type="checkbox"/> INDIA <input type="checkbox"/> LAIN-LAIN <small>(Nyatakan bangsa)</small> <input type="checkbox"/>	<input style="width: 60%;" type="text"/>
ALAMAT KEDIAMAN	<input style="width: 100%;" type="text"/>	
	<input style="width: 100%;" type="text"/>	
BANDAR	<input style="width: 100%;" type="text"/>	
POSKOD	<input style="width: 100%;" type="text"/>	
NO. TELEFON	<input style="width: 100%;" type="text"/>	
NAMA PEMILIK	<input style="width: 100%;" type="text"/>	
NO. MYKAD/MYPR	<input style="width: 60%;" type="text"/>	NO. K/P <small>(Lama)</small>
TARIKH LAHIR	<input style="width: 60%;" type="text"/>	JANTINA L <input type="checkbox"/> P <input type="checkbox"/>
KERAKYATAN	WARGANEGARA <input type="checkbox"/> PENDUDUK TETAP <small>(Nyatakan negara asal)</small> <input type="checkbox"/>	<input style="width: 60%;" type="text"/>
BANGSA	MELAYU <input type="checkbox"/> CINA <input type="checkbox"/> INDIA <input type="checkbox"/> LAIN-LAIN <small>(Nyatakan bangsa)</small> <input type="checkbox"/>	<input style="width: 60%;" type="text"/>
ALAMAT KEDIAMAN	<input style="width: 100%;" type="text"/>	
	<input style="width: 100%;" type="text"/>	
BANDAR	<input style="width: 100%;" type="text"/>	
POSKOD	<input style="width: 100%;" type="text"/>	
NO. TELEFON	<input style="width: 100%;" type="text"/>	
PENGESAHAN PEMILIK TUNGGAL/RAKAN KONGSI		
(Ditandatangani setiap pemilik tunggal/rakan kongsi mengad batin dan menunjukkan tandatangan/cap ibu jari kanan di atas borang ini)		
Saya/kami yang bertandatangan di bawah mengesahkan semua kenyataan yang dibuat dalam borang ini adalah benar dan mengaku bahawa saya/kami adalah pemilik tunggal/rakan kongsi bagi perniagaan ini.		
BIL.	NAMA DAN NO. MYKAD/MYPR	TANDATANGAN/CAP IBU JARI KANAN
TARIKH PERMOHONAN <input style="width: 100%;" type="text"/>		
UNTUK KEGUNAAN PEJABAT		
Saya adalah Orang Yang Bertanggungjawab (OYB) menyerahkan butiran pendaftaran perniagaan yang dinyatakan di atas.		
	NAMA DAN NO. MYKAD/MYPR	TANDATANGAN/CAP IBU JARI KANAN

## Appendix U12: Business Renewal Form (Form A1)

BORANG A1 PERCUMA		
 <b>BUREAU MALAYA SYARIKAT MALAYSIA</b> <b>COMMERCE COMMISSION OF MALAYSIA</b>		
<b>PERMOHONAN PEMBAHARUAN PENDAFTARAN PERNIAGAAN</b> <b>KAEDAH-KAEDAH PENDAFTARAN PERNIAGAAN 1967 (KAEDAH 5)</b>		
<b>SILA TANDAKAN (✓) DI PETAK BERKENAAN DAN LENGKAPKAN MAKLUMAT DENGAN HURUF BESAR</b> (*Ruangan wajib diisi)		
NO. PENDAFTARAN	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> - <input type="text"/>	
NAMA PERNIAGAAN	<input type="text"/> <input type="text"/> <input type="text"/>	
TEMPOH PEMBAHARUAN	1 TAHUN <input type="checkbox"/> 2 TAHUN <input type="checkbox"/> 3 TAHUN <input type="checkbox"/> 4 TAHUN <input type="checkbox"/> 5 TAHUN <input type="checkbox"/>	
MAKLUMAT PERNIAGAAN	PERNIAGAAN MASIH AKTIF <input type="checkbox"/> PERUBAHAN <input type="checkbox"/> <i>(Jika ada, tandakan (✓) pada jenis perubahan)</i>	
JENIS PERUBAHAN	ALAMAT UTAMA PERNIAGAAN <input type="checkbox"/> JENIS PERNIAGAAN <input type="checkbox"/> ALAMAT CAWANGAN <input type="checkbox"/> MAKLUMAT PEMILIK <input type="checkbox"/>	
NYATAKAN PERUBAHAN ITU	TELAH DIDAFTARKAN <input type="checkbox"/> BELUM DIDAFTARKAN <input type="checkbox"/> <i>(Dihtar perubahan tersebut menggunakan Borang B)</i>	
<b>KEMASKINI NOMBOR TELEFON BIMBIT PEMILIK/RAKAN KONGSI (Jika ada perubahan maklumat no. telefon bimbit)</b>		
BIL.	NAMA	NO. TELEFON BIMBIT
<b>PENGESAHAN PEMILIK/ORANG YANG BERTANGGUNGJAWAB</b> Saya yang bertandatangan di bawah mengesahkan bahawa segala maklumat yang diberikan adalah benar.		
TANDATANGAN PEMILIK ATAU ORANG YANG BERTANGGUNGJAWAB		
NAMA : _____		
NO. MYKAD/MPPR : _____		
NO. TELEFON BIMBIT : _____		
TARIKH PERMOHONAN	<input type="text"/> <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	

1/1

**Appendix U13: Company Name Registration Form (Form PNA 42)**

 BERSEKUTUAN MALAYSIA COMBINED COMPANIES OF MALAYSIA	<b>BORANG PNA 42</b> <b>PERCUMA</b>
<b>PERMOHONAN NAMA PERNIAGAAN</b>	
(Permohonan ini perlu dilampirkan bersama dengan Borang A. Tiada bayaran dikenakan)	
<b>A. Saya memohon untuk menggunakan salah satu nama perniagaan mengikut pilihan di bawah :</b>	
1.	<input style="width: 95%;" type="text"/>
2.	<input style="width: 95%;" type="text"/>
3.	<input style="width: 95%;" type="text"/>
Jika nama perniagaan menggunakan perkataan rokan dan singkatan atau selain B. Malaysia / Inggeris. Sila jelaskan maksud (jika ada, lampirkan dokumen sokongan).	
<input style="width: 100%;" type="text"/>	
<input style="width: 100%;" type="text"/>	
<input style="width: 100%;" type="text"/>	
<b>B. Jenis perniagaan yang dijalankan (Sesuai dengan nama perniagaan yang dicadangkan) :</b>	
<input style="width: 100%;" type="text"/>	
<input style="width: 100%;" type="text"/>	
<input style="width: 100%;" type="text"/>	
<input style="width: 100%;" type="text"/>	
<b>C. Pongosahan pemilik atau salah seorang rakan kongsi :</b>	
<div style="text-align: right; margin-bottom: 10px;">                     _____                      TANDATANGAN PEMILIK ATAU                      SALAH SEORANG RAKAN KONGSI                 </div> <div style="text-align: center;">                     NAMA : _____                      NO. MYKAD/MPFR : _____                      NO. TELEFON BEMBIT : _____                 </div> <div style="margin-top: 10px;">                     TARIKH PERMOHONAN    <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> - <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> - <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> </div>	
<b>Perhatian:</b>	
(a) Permohonan nama perniagaan diluluskan berdasarkan keutamaan nama perniagaan yang dipohon. (b) Nama perniagaan yang telah diluluskan diberi tempoh 30 hari dan tidak boleh dipinda atau ditukar kepada pemilik yang lain. (c) Jika ada arahan mahkamah atau bantahan oleh pihak ketiga ke atas nama perniagaan disebabkan penggunaan Cap Dagangan dan lain-lain, pemilik diminta mengambil tindakan menutup perniagaan dan mendaftar menggunakan nama perniagaan yang lain.	
1/1	

## Appendix U14: Trademarks Registration Form

INTELLECTUAL PROPERTY CORPORATION OF MALAYSIA  
TRADE MARKS REGISTRY  
TRADE MARKS ACT 1976  
TRADE MARKS REGULATION 1997  
APPLICATION FOR REGISTRATION OF TRADE MARKS AGENT  
(Subregulations 12(2))

TM 2

**For Official Use**

Application received on : .....

Fee received on : .....

Amount : .....

\* Cheque / Postal Order / Money Order / Cash / Draft No: .....

(\* please tick whichever is applicable)

I. APPLICANT :

Name: .....

Address: .....

.....

.....

Nationality: .....

.....

Permanent residence or principal place of business:

.....

.....

.....

Telephone No: .....

Fax No : .....



**II. QUALIFICATIONS:**

(Please attach copies of qualifications certified by a Commissioner of Oath)

.....  
.....  
.....  
.....  
.....

**III. EXPERIENCE:**

(Please submit in the form of statutory declaration).

.....  
.....  
.....  
.....  
.....

**IV. DECLARATION:**

I hereby declare that all the information given above is true and correct.

Signature : .....

Date : .....

INTELLECTUAL PROPERTY CORPORATION OF MALAYSIA

TRADE MARKS REGISTRY

TM 5

TRADE MARKS ACT 1976

TRADE MARKS REGULATIONS 1997

APPLICATION FOR REGISTRATION OF A MARK  
[Subregulation 1B(1)]

Applicant's\* or Agent's\* file reference: .....  
\* Delete whichever not applicable

1. Application is hereby made for the registration of a:

trade mark       defensive trade mark       certification trade mark

*Note: Please tick the box appropriate to the kind of mark which registration is desired. In the case of a trade mark, please attach a copy of the oath, sworn statement or statutory declaration evidencing that the applicant is the true owner. In the case of a certification trade mark, please attach a copy of the rules governing its use. In the case of a defensive trade mark, please attach a copy of the statement of case verified by a statutory declaration.*

*[Please enclose five (5) copies of the Form with the application]*

2. Representation of mark:

*Note: If the space provided is insufficient, the representation may be made on a separate sheet and firmly attached to this Form. Please ensure that the representation is clear and comply fully with regulation 34 and the size of the trade mark shall not exceed 10 x 10 cm.*

If the mark is coloured and is to be limited according to the colour, please tick this box:

If the application is for a series of trade marks under section 24, please specify the number of series in this box:

*Note: Any application made for a series of trade marks exceeding two trade marks is subject to an additional fee of RM50.00 per trade mark.*

3. Limitations, etc.:

*(Insert below any conditions, disclaimers or other limitations to which the registration will be subjected to. If the mark contains or consists of a word or words in non-Roman characters or in a language other than English language or the national language, please provide a certified transliteration and translation as*

<p>appropriate.)</p> <p>.....</p> <p>.....</p> <p>.....</p>
<p>4. Class: <input type="checkbox"/></p> <p>5. List of goods or services: (Goods or services falling within more than one international class are subject to separate applications. Please use a separate sheet if necessary.)</p> <p>.....</p> <p>.....</p> <p>.....</p>
<p>6. Full name and address of applicant:</p> <p>Name : .....</p> <p>Address : .....</p> <p>.....</p> <p>.....</p> <p>NRIC No./Company Registration No./Passport No.: .....</p> <p>(as a personal reference number)</p> <p><i>If the applicant is a partnership, please state the full names of all the partners. If the applicant resides abroad, please provide an address for service in Malaysia (Column 7).</i></p>
<p>7. Full name and address of agent (if any):</p> <p>Name : .....</p> <p>Address : .....</p> <p>.....</p> <p>.....</p> <p><i>Note: If this is the address for service, please file Form TM 1 together with this Form.</i></p>

<p>8. Agent's Registration No. (if known): .....</p>
<p>9. Agent's own reference: .....</p>
<p>10. International Convention priority claim: <i>If priority date is claimed under International Convention or a bilateral arrangement, please give details below and attach the relevant documents.</i></p> <p>Convention country in which the trade mark was first filed: .....</p> <p>Date: ..... No. (if any): .....</p>
<p>11. Date of first use of the mark in Malaysia (if any): .....</p>
<p>12. Declaration: <i>We claim to be the bona fide proprietor of the mark whose registration is applied for and, where the mark has not been used in Malaysia, that the application is made in good faith and that I am/we are entitled to be registered as the proprietor of the mark.</i></p> <p><i>An agent signing this Form on behalf of the applicant shall satisfy himself as to the truth of the declaration.</i></p> <p>Signature: .....</p> <p>Name of signatory (in block letter): .....</p> <p>Telephone No.: ..... E-mail: .....</p> <p>Date: .....</p> <p><i>Note: If the applicant is a partnership, please state the full names of all the partners.</i></p>

INTELLECTUAL PROPERTY CORPORATION OF MALAYSIA  
 TRADE MARKS REGISTRY  
 TRADE MARKS ACT 1976  
 TRADE MARKS REGULATION 1997

TM 01

**FORM OF AUTHORISATION AND REQUEST TO ENTER, ALTER OR  
 SUBSTITUTE AN ADDRESS FOR SERVICE**

This form must be filed whenever an agent is appointed  
 or when one agent is substituted for another  
 (Subregulation 10(1), (10C), 10D) and 11(2))

1.	Trade Mark No: <input style="width: 95%;" type="text"/>
2.	Class <input style="width: 95%;" type="text"/>
3.	Full name and address of proprietor : ..... ..... .....
4.	Full name and address of agent (if any): ..... ..... .....
5.	Agent's Registration No (if known) : .....
6.	Agent's own reference : .....
7.	I request that all communication concerning the above mark be sent to the address indicated, which is the address for service.  <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="text-align: center;"> <p><small>Note: Enter (3) or (4) as appropriate in the box.                      An address for service must be in Malaysia.                      The full postal addresses of the parties must                      be given.</small></p> <p>Signature: .....</p> <p>Name of signatory (in block letter) : .....</p> <p>Date : .....</p> </div> <div style="border: 1px solid black; width: 40px; height: 20px; margin-left: auto;"></div> </div>

**Appendix U15: Patent Registration Form**

<p>Patents Form No. 1 PATENTS ACT 1983</p> <p><b>REQUEST FOR GRANT OF PATENT</b> (Regulations 7(1))</p> <p>To: The Registrar of Patents Patents Registration Office Kuala Lumpur, Malaysia</p>	<p style="text-align: center;">For Official Use</p> <p>Application received on : .....</p> <p>Fee received on .....</p> <p>Amount .....</p> <p>*Cheque / Postal Order / Money Order / Draft / Cash No. ....</p> <hr/> <p>Date of mailing .....</p>
<p>Please submit this Form in duplicate together with the prescribed fee</p>	<p>Applicant's file reference .....</p>
<p>THE APPLICANT(S) REQUEST(S) THE GRANT OF A PATENT IN RESPECT OF THE FOLLOWING PARTICULARS :</p>	
<p>I. Title Of Invention : .....</p> <p style="text-align: center;">.....</p>	
<p>II. APPLICANT(S) (the data concerning each applicant must appear in this box or, if the space insufficient, in the space below :</p> <p>Name : .....</p> <p>I.C./Passport No. : .....</p> <p>Address : .....</p> <p style="text-align: center;">.....</p> <p>Address for service in Malaysia : .....</p> <p style="text-align: center;">.....</p> <p>Nationality : .....</p> <p>*Permanent residence or principal place of business : .....</p> <p style="text-align: center;">.....</p> <p style="text-align: center;">.....</p> <p style="text-align: center;">Telephone Number                      Fax Number (if any)                                      (if any)</p> <p style="text-align: center;">.....                                      .....</p>	
<p>Additional Information (if any)</p>	

<b>III. INVENTOR :</b>	
Applicant is the inventor	Yes <input type="checkbox"/> No <input type="checkbox"/>
If the applicant is not the inventor :	
Name of inventor : .....	
Address of inventor : .....	
A statement justifying the applicant's right to the patent accompanies this Form :	
Yes <input type="checkbox"/> No <input type="checkbox"/>	
Additional Information (if any)	
<b>IV. AGENT OR REPRESENTATIVE :</b>	
Applicant has appointed a patent agent in accompanying Form No. 17	Yes <input type="checkbox"/> No <input type="checkbox"/>
Agent's registration No. : .....	
Applicant has appointed ..... to be their representative	
<b>V. DIVISIONAL APPLICATION :</b>	
This application is a divisional application	<input type="checkbox"/>
The benefit of the filing date <input type="checkbox"/>	priority date <input type="checkbox"/>
of the initial application is claimed in as much as the subject-matter of the present application is contained in the initial application identified below :	
Initial Application No. : .....	
Date of Filing of initial application : .....	
Additional Information (if any)	
<b>VI. DISCLOSURE TO BE DISREGARDED FOR PRIOR ART PURPOSES :</b>	
Additional information is contained in supplemental box :	
(a) Disclosure was due to acts of applicant or his predecessor in title	<input type="checkbox"/>
Date of disclosure : .....	
(b) Disclosure was due to abuse of rights of applicant or his predecessor in title	<input type="checkbox"/>
Date of disclosure : .....	
A statement specifying in more detail the facts concerning the disclosure accompanies this Form	Yes <input type="checkbox"/> No <input type="checkbox"/>
Additional Information (if any)	

<p><b>VII. PRIORITY CLAIM (if any) :</b></p> <p>The priority of an earlier application is claimed as follows :</p> <p>Country (if the earlier application is a regional or international application, indicate the office with which it is filed) : .....</p> <p>Filing Date : .....</p> <p>Application No. : .....</p> <p>Symbol of the International Patent Classification :</p> <p>It not yet allocated, please tick <input type="checkbox"/></p> <p>The priority of more than one earlier application is claimed :          Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>The certified copy of the earlier application (s) accompanies this Form :          Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If No, it will be furnished by ..... (date)</p>																										
<p>Additional Information (if any)</p>																										
<p><b>VIII. CHECK LIST :</b></p> <p><b>A. This application contains the following :</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">1. request</td> <td style="width: 20%; text-align: right;">sheets</td> </tr> <tr> <td>2. description .....</td> <td style="text-align: right;">sheets</td> </tr> <tr> <td>3. claim .....</td> <td style="text-align: right;">sheets</td> </tr> <tr> <td>4. abstract .....</td> <td style="text-align: right;">sheets</td> </tr> <tr> <td>5. drawings .....</td> <td style="text-align: right;">sheets</td> </tr> <tr> <td style="text-align: right;">Total .....</td> <td style="text-align: right;">sheets</td> </tr> </table> <p><b>B. This Form, as filed, is accompanied by the items checked below :</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">(a) signed Form No. 17</td> <td style="width: 20%; text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>(b) declaration that inventor does not wish to be named in the patent</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>(c) statement justifying applicant's right to the patent</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>(d) statement that certain disclosure be disregarded</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>(e) priority document (certified copy of earlier application)</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>(f) cash, cheque, money order, bank draft or postal order for the payment of application fee</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td>(g) other documents (specify)</td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> </table>	1. request	sheets	2. description .....	sheets	3. claim .....	sheets	4. abstract .....	sheets	5. drawings .....	sheets	Total .....	sheets	(a) signed Form No. 17	<input type="checkbox"/>	(b) declaration that inventor does not wish to be named in the patent	<input type="checkbox"/>	(c) statement justifying applicant's right to the patent	<input type="checkbox"/>	(d) statement that certain disclosure be disregarded	<input type="checkbox"/>	(e) priority document (certified copy of earlier application)	<input type="checkbox"/>	(f) cash, cheque, money order, bank draft or postal order for the payment of application fee	<input type="checkbox"/>	(g) other documents (specify)	<input type="checkbox"/>
1. request	sheets																									
2. description .....	sheets																									
3. claim .....	sheets																									
4. abstract .....	sheets																									
5. drawings .....	sheets																									
Total .....	sheets																									
(a) signed Form No. 17	<input type="checkbox"/>																									
(b) declaration that inventor does not wish to be named in the patent	<input type="checkbox"/>																									
(c) statement justifying applicant's right to the patent	<input type="checkbox"/>																									
(d) statement that certain disclosure be disregarded	<input type="checkbox"/>																									
(e) priority document (certified copy of earlier application)	<input type="checkbox"/>																									
(f) cash, cheque, money order, bank draft or postal order for the payment of application fee	<input type="checkbox"/>																									
(g) other documents (specify)	<input type="checkbox"/>																									



IX. SIGNATURE .....  
  \*\* (Applicant/Agent)  (Date)


If Agent, indicate Agent's Registration No. ....

For Official Use

1. Date application received : .....
2. Date of receipt of correction, later filed papers or drawings completing the application : .....

- \* Delete whichever does not apply
- \*\* Type name under signature and delete whichever does not apply


**Appendix U16: Employer Registration Application Form for EPF**

	<b>KUMPULAN WANG SIMPANAN PEKERJA</b> <b>PERMOHONAN PENDAFTARAN MAJIKAN</b> <b>EMPLOYER REGISTRATION APPLICATION FORM</b>	KWSP 1 (MAJIKAN) PERCUMA
<b>(A) JENIS PENDAFTARAN MAJIKAN / TYPE OF EMPLOYER REGISTRATION</b>		
<p><b>SILA TANDAKAN SALAH SATU KOTAK SAHAJA / PLEASE TICK ANY ONE OF THE BOXES BELOW</b></p> <p>1. KERAJAAN <small>GOVERNMENT</small> <input type="checkbox"/></p> <p>2. BERDAFTAR DENGAN SURUHANJAYA SYARIKAT MALAYSIA SEBAGAI: <small>REGISTERED WITH COMPANIES COMMISSION OF MALAYSIA AS:</small></p> <p>SYARIKAT <small>COMPANY</small> <input type="checkbox"/></p> <p>PERNAGAAN <small>SOLE PROPRIETORSHIP</small> <input type="checkbox"/></p> <p>PERKONGSIAN LIABILITI TERHAD <small>LIMITED LIABILITY PARTNERSHIP</small> <input type="checkbox"/></p> <p>3. BERDAFTAR SELAIN DENGAN SURUHANJAYA SYARIKAT MALAYSIA <small>REGISTERED NOT UNDER COMPANIES COMMISSION OF MALAYSIA</small> <input type="checkbox"/></p> <p>4. MAJIKAN KEPADA ORANG GAJI DOMESTIK <small>REGISTRATION AS AN EMPLOYER FOR DOMESTIC SERVANTS</small> <input type="checkbox"/></p> <p><small>NOTE: BAGI PENDAFTARAN MAJIKAN KEPADA ORANG GAJI DOMESTIK, SILA LENGKAPKAN RUANG (F), (G) DAN (H) SAHAJA. NOTE: PLEASE COMPLETE SECTION (F), (G) AND (H) ONLY IF REGISTERING AS AN EMPLOYER FOR DOMESTIC SERVANTS</small></p>		
<b>(B) MAKLUMAT MAJIKAN / DETAILS OF EMPLOYER</b>		
<p>NAMA PENUH SYARIKAT / PERNAGAAN / PERSATUAN <small>FULL NAME OF COMPANY / SOLE PROPRIETOR / ASSOCIATION</small></p> <p>NO. SYARIKAT / PERNAGAAN / PERSATUAN <small>COMPANY / SOLE PROPRIETOR / ASSOCIATION NO.</small></p> <p>NO. BERDAGANG <small>TRADING NO.</small></p> <p>NO. PERNAGAAN / PERKONGSIAN LIABILITI TERHAD <small>SOLE PROPRIETORSHIP / LIMITED LIABILITY PARTNERSHIP NO.</small></p> <p>TARIKH PENUBUHAN <small>DATE OF INCORPORATION / REGISTRATION</small></p> <p>TARIKH MULA MENGAMBIL PEKERJA <small>DATE ON WHICH FIRST EMPLOYEE IS EMPLOYED</small></p> <p>ENTITI PERNAGAAN <small>SOLE PROPRIETORSHIP</small> <input type="checkbox"/> KERAJAAN <small>GOVERNMENT</small> <input type="checkbox"/> SYARIKAT SENDIRIAN BERHAD <small>PRIVATE LIMITED COMPANY</small> <input type="checkbox"/> SYARIKAT BERHAD <small>LIMITED COMPANY</small> <input type="checkbox"/></p> <p>PERKONGSIAN <small>PARTNERSHIP</small> <input type="checkbox"/> PEMLIK TUNGGAL <small>SOLE PROPRIETORSHIP</small> <input type="checkbox"/> PERKONGSIAN LIABILITI TERHAD <small>LIMITED LIABILITY PARTNERSHIP</small> <input type="checkbox"/></p> <p>LAIN-LAIN <small>OTHER</small> <input type="checkbox"/></p> <p>JENIS PERNAGAAN <small>NATURE OF BUSINESS</small></p> <p>BILANGAN PEKERJA <small>NUMBER OF EMPLOYEES</small></p>		
<b>UNTUK KEGUNAAN KWSP SAHAJA / FOR EPF USE ONLY</b>		
<p>NO. MAJIKAN <input type="text"/></p> <p>BULAN TANGGULANGAN MENCARUM <input type="text"/></p> <p>KOD STANDARD INDUSTRI <input type="text"/></p> <div style="border: 1px solid black; width: 200px; height: 100px; margin-left: auto; margin-right: auto; text-align: center; vertical-align: middle;">                 COP TARIKH TERIMA             </div> <p><small>Sila hubungi Pusat Pengurusan Perhubungan KWSP 03 - 8922 6000 untuk sebarang pertanyaan berkaitan permohonan ini. Please contact Call Management Centre 03 - 8922 6000 for any query on this application.</small></p>		
		V16/12/2016 <b>1</b>

NAMA PENJAJK (HURUF BESAR) FULL NAME OF APPLICANT (CAPITAL LETTERS)	
<b>(C) MAKLUMAT PERNIAGAAN / DETAILS OF BUSINESS</b>	
ALAMAT PERNIAGAAN BUSINESS ADDRESS	<input type="text"/> <input type="text"/> <input type="text"/>
POSKOD POSTCODE	<input type="text"/>
NEGERI STATE	<input type="text"/>
ALAMAT BERDAFTAR (SEKiranya berbeza dengan perniagaan) REGISTERED ADDRESS (If different from business)	<input type="text"/> <input type="text"/> <input type="text"/>
POSKOD POSTCODE	<input type="text"/>
NEGERI STATE	<input type="text"/>
ALAMAT SURAT MENYURAT MAIL ADDRESS	<input type="text"/> <input type="text"/> <input type="text"/>
POSKOD POSTCODE	<input type="text"/>
NEGERI STATE	<input type="text"/>
E-MAIL EMAIL	<input type="text"/>
NAMA PEGAWAI NAME OF OFFICER	<input type="text"/>
NO. MyKad / POLIS / TENTERA / PASPORT / SUL WARGANEGARA MYKAD / POLICE / MILITARY / PASSPORT / CITIZENSHIP CARD NO.	<input type="text"/>
JAWATAN DESIGNATION	<input type="text"/>
NO. TELEFON 1 TELEPHONE NO. 1	<input type="text"/>
NO. TELEFON 2 TELEPHONE NO. 2	<input type="text"/>
NO. TELEFON BIMBT MOBILE TELEPHONE NO.	<input type="text"/>
NO. FAKSIMILI FACSIMILE	<input type="text"/>
<b>(D) MAKLUMAT PEMILIK / PENGARAH SYARIKAT / RAKAN KONGSI / PEMEGANG JAWATAN UTAMA                  BUSINESS OWNER DETAILS</b>	
NAMA PEMILIK SYARIKAT OWNER'S NAME COMPANY	<input type="text"/> <input type="text"/>
JAWATAN DESIGNATION	<input type="text"/>
NO. MyKad/PASPORT MYKAD/PASSPORT NO.	<input type="text"/>
WARGANEGARA CITIZENSHIP	<input type="text"/>
<b>(E) NAMA DAN ALAMAT TEMPAT PERNIAGAAN LAIN ATAU CAWANGAN                  OTHER BUSINESS OR BRANCH NAME AND PLACE OF BUSINESS</b>	
NAMA NAME	ALAMAT ADDRESS
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
NOTA: Jika ruangan tidak mencukupi, sila gunakan kertas lain dan sertakan lampiran bersama permohonan ini. NOTE: If the above provided are not sufficient, please fill in a separate paper and attach with this form.	
Sila hubungi Pusat Pengurusan Perhubungan KWSP 03 – 8922 8000 untuk sebarang pertanyaan berkaitan permohonan ini. Please contact Call Management Centre 03 – 8922 8000 for any query on this application.	
V16122016 <b>2</b>	

NAMA PENJAJIKAN (HURUF BESAR) _____ <small>FULL NAME OF EMPLOYER (CAPITAL LETTERS)</small>			
<b>(F) MAKLUMAT MAJIKAN ORANG GAJI DOMESTIK / DETAILS OF EMPLOYER OF DOMESTIC SERVANT</b>			
NAMA MAJIKAN <small>EMPLOYER NAME</small>	<input style="width: 100%; height: 20px;" type="text"/> <input style="width: 100%; height: 20px;" type="text"/>		
NO. MyKad/PASPORT <small>MyKad/PASPORT NO.</small>	<input style="width: 100%; height: 20px;" type="text"/>		
ALAMAT KEDAMAI/ PERJAJAAN <small>RESIDENTIAL/BUSINESS ADDRESS</small>	<input style="width: 100%; height: 20px;" type="text"/> <input style="width: 100%; height: 20px;" type="text"/>		
POSKOD <small>POSTCODE</small>	<input style="width: 40px; height: 20px;" type="text"/>	NEGERI <small>STATE</small>	<input style="width: 100%; height: 20px;" type="text"/>
NO. TELEFON RUMAH <small>HOME TELEPHONE NO.</small>	<input style="width: 100%; height: 20px;" type="text"/>		NO. TELEFON PELAJABAT <small>OFFICE TELEPHONE NO.</small>
NO. TELEFON BMBBIT <small>MOBILE TELEPHONE NO.</small>	<input style="width: 100%; height: 20px;" type="text"/>		NO. FAKSIMILI <small>FAX NO.</small>
SAYA SUDAH DIDAFTAR SEBAGAI SEORANG MAJIKAN <small>I AM REGISTERED AS AN EMPLOYER AND MY REGISTERED NUMBER IS</small>		<input style="width: 100%; height: 20px;" type="text"/>	BILANGAN ORANG GAJI DOMESTIK <small>NO. OF DOMESTIC SERVANTS</small>
<input style="width: 100%; height: 20px;" type="text"/>			
<b>(G) MAKLUMAT ORANG GAJI DOMESTIK / DETAILS OF DOMESTIC SERVANT</b>			
NOTA : JIKA RUJUKAN TIDAK MENULUPI, SILA GUNAKAN KERTAS LAIN DAN SERTAKAN BERSAMA PERMOHONAN INI <small>NOTE : IF THE SPACE PROVIDED IS NOT SUFFICIENT, PLEASE FILL IN A SEPARATE PAPER AND ATTACH WITH THIS FORM</small>			
NAMA ORANG GAJI DOMESTIK <small>Name of domestic servant</small>	<input style="width: 100%; height: 20px;" type="text"/> <input style="width: 100%; height: 20px;" type="text"/>		
NO. MyKad/PASPORT <small>MyKad/PASPORT NO.</small>	<input style="width: 100%; height: 20px;" type="text"/>		
TANDATANGAN ORANG GAJI DOMESTIK <small>SIGNATURE OF DOMESTIC SERVANT</small>	<input style="width: 100%; height: 20px;" type="text"/>		TARIKH <small>DATE</small>
<input style="width: 100%; height: 20px;" type="text"/>			
<b>(H) PENGESAHAN MAJIKAN / DECLARATION OF EMPLOYER</b>			
NOTA : RUJUKAN INI PERLU DELENGKAPKAN BAGI SEMUA JENIS PENDAFTARAN MAJIKAN. <small>NOTE : THIS SECTION MUST BE COMPLETED FOR ALL REGISTERED TYPES OF EMPLOYERS</small>			
1. SAYA MENGENAIBKAN BAHAWA SEMUA MAKLUMAT DAN DOKUMEN YANG DIBERIKAN ADALAH SAIH DAN BENAR <small>I THE UNDERSIGNED DO HEREBY DECLARE THAT ALL THE INFORMATION GIVEN IN THE APPLICATION AND SUPPORTING DOCUMENTS ARE CORRECT AND TRUE</small>			
<input style="width: 100%; height: 20px;" type="text"/>			
TANDATANGAN MAJIKAN / WAKIL MAJIKAN <small>SIGNATURE OF EMPLOYER/ REPRESENTATIVE OF EMPLOYER</small>	JAWATAN <small>DESIGNATION</small>	COP RASMI ORGANISASI <small>OFFICIAL STAMP OF ORGANISATION</small>	TARIKH <small>DATE</small>
<input style="width: 100%; height: 20px;" type="text"/>			
Sila hubungi Pusat Pengurusan Perkhidmatan KWSP-03 - 8922 8000 untuk sebarang pertanyaan berkaitan permohonan ini. <small>Please contact Call Management Centre 03 - 8922 8000 for any enquiry on this application.</small>			
			V16122016 <b>3</b>

Appendix U17: SOCSO Registration Form for Employer (Form 1)



**BORANG 1**  
**BORANG PENDAFTARAN MAJIKAN**  
 PERATURAN-PERATURAN (AM) KESELAMATAN SOSIAL PEKERJA 1971  
 (Peraturan 19)

**BORANG 1 - PENDAFTARAN MAJIKAN**

Nombor Pendaftaran (No.SSM/MyCoID, Badan Profesional, Pertubuhan, Persatuan, Koperasi), atau  
 Nombor Pengenal Diri Majikan (yang tidak berdaftar dengan SSM dan agensi lain); atau  
 Nombor PTJ Kerajaan Persendirian atau Kerajaan Negeri

--	--

**A. MAKLUMAT PERUSAHAAN**

**A1. Nama Perusahaan**

--

**A2. Alamat surat menyurat**

Poskod	Negeri	
Peti Surat	No. Bag Berkunci	WDT (Tag Sahaja/Carum)

**A3. Alamat Perusahaan (Tidak perlu diisi jika alamat adalah sama seperti di A2)**

Poskod	Negeri	
Peti Surat	No. Bag Berkunci	WDT (Tag Sahaja/Carum)

**A4. No. Telefon**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**A5. No. Tel. Bimbit**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**A6. No. Faks**

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**A7. E-mail** \_\_\_\_\_

**A8. Jenis Perusahaan**

**A8.1. Entiti Pemilikan**

Sendiran Berhad  Berhad  Keluarpunyaan Tunggal  Perkongsian

Perkongsian Liabiliti Terhad  Berdaftar dengan SSM  Berdaftar dengan SSM

Berdaftar dengan agensi lain  Berdaftar dengan agensi lain

Tidak berdaftar  Tidak berdaftar

**A8.2 Lain-lain** \_\_\_\_\_  
(Kategori Persekitaran atau Negeri, Badan Berdaftar, Pihak Berkuasa Tempatan, Persekitaran/Kedudukan, Pertubuhan/Persatuan, Koperasi)

**A9. Kaedah Bayaran Caruman**  Portal PERKESO  Perbankan Internet  CD  Borang Caruman Bulanan (BA)

**B. PENGESAHAN MAJIKAN/WAKIL MAJIKAN**

Saya dengan ini mengesahkan bahawa maklumat di atas adalah benar sepanjang pengetahuan dan kepercayaan saya.

Tandatangan \_\_\_\_\_

Nama Majikan>Nama Wakil Majikan: \_\_\_\_\_ Tarikh 

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

No. KPPN: \_\_\_\_\_

Jawatan: \_\_\_\_\_


**KEGUNAAN PERKESO**

Kod Majikan	Kod Perusahaan	Tarikh Liabiliti																																																															
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Tandatangan tidak diperlukan sekiranya borang ini dihantar melalui medium elektronik terbalik kepada pengesahan oleh PERKESO

**Appendix U18: SOCSO Registration Form for Employee (Form 2)**

**BORANG 2**  
BORANG PENDAFTARAN PEKERJA  
PERATURAN-PERATURAN (AM) KESELAMATAN SOSIAL PEKERJA 1971  
(Paraturan 10, 12 dan 12A)



**BORANG 2- PENDAFTARAN PEKERJA**

NO KOD MAJIKAN / MyCoID

--	--	--	--	--	--	--	--	--	--	--	--

A. BUTIRAN PEKERJA							
Jenis Kad Pongonalan	No.Kad Pongonalan	Nama Pekerja (seperti dalam Kad Pongonalan)	Jantina (L/P)	Bangsa	Tarikh Mula Kerja	Pekerjaan	Sila tandakan (1) pekerja yang bergaji melebihi RM5,000.00 sebulan
(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)
	(3) Tarikh Lahir				Hari Bulan Tahun		
	Tarikh Lahir				Hari Bulan Tahun		
	Tarikh Lahir				Hari Bulan Tahun		
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	Tarikh Lahir				Hari Bulan Tahun		
	Tarikh Lahir				Hari Bulan Tahun		
	Tarikh Lahir				Hari Bulan Tahun		

**B. PENGESAHAN MAJIKAN / WAKIL MAJIKAN**

Saya mengesahkan bahawa tiada seorang pun pekerja perusahaan ini sebagaimana yang ditakrifkan dalam seksyen 2(5) Akta telah tertinggal daripada senarai di atas.

Tandatangan: \_\_\_\_\_ Tarikh :

Nama Majikan>Nama Wakil Majikan:  
 Nama Perusahaan:  
 No. KPPN: \_\_\_\_\_ Jawatan:  
 No. Telefon Pejabat/No. Telefon Bimbit \_\_\_\_\_ No. Faks: \_\_\_\_\_ E-mel : \_\_\_\_\_

Tandatangan tidak diperlukan sekiranya borang ini dihantar melalui medium elektronik tertakluk kepada pengesahan oleh PERKESO



3659249109

**A. PANDUAN MENGISI BORANG 8A**

1. Caruman gaji bulan. Contoh 06 2012.
2. No. Kod Majikan.
3. No. MyCoID.
4. Jumlah keseluruhan amaun caruman yang perlu dibayar.
5. Jumlah keseluruhan bilangan pekerja.
6. Bilangan lembaran seperti contoh berikut:
  - 1/2 di lembaran 1
  - 2/2 di lembaran 2
7. Cop Cawangan Ejen Pemungut.
8. No Slip Bayaran - Disi oleh Ejen Pemungut berdasarkan nombor slip bayaran yang digunakan untuk membayar caruman.
9. Ruangan:
  - (1): Pekerja baru – Isikan Tarikh Mula Kerja @ Pekerja Berhenti – Isikan Tarikh Berhenti Kerja.

**NOTA:**

  - \*Majikan perlu kemaakini profil pekerja baru dalam Borang 2 menerusi skrin kemaakini majikan/pekerja dalam PORTAL.
  - \*Pekerja yang telah dibayar carumannya sebelum ini dan kini bergaji melebihi RM3000 sebulan hendaklah terus dicarumkan dengan PERKESO. 'Prinsip Sekali Layak Terus Layak' adalah terpakai dan Notis Pilihan tidak perlu dikemukakan bagi pekerja sedemikian.
  - \*Majikan bagi pekerja baru yang bergaji melebihi RM3000 sebulan dan belum pernah mencarum dengan PERKESO perlu mengemukakan Borang 2 dan Notis Pilihan yang lengkap ditandatangani. Pekerja berkenaan adalah layak mencarum dari tarikh Notis Pilihan lengkap diterima oleh PERKESO.
  - (2): Status Pekerja (M-Meninggal Dunia, B-Pekerja Baru, H-Berhenti, S-Cuti Sakit dalam tempoh menerima faedah PERKESO, T-Pekerja yang mengambil cuti tanpa gaji sebulan bagi bulan carum).
  - (3): No Kad Pengenalan @ sekiranya tiada, Isikan Nombor Keselamatan Sosial yang dibekalkan oleh PERKESO.
  - (4): Nama pekerja mengikut kad pengenalan @ Kad Keselamatan Sosial.
  - (5): Amaun caruman
    - Skim 1 (Bencana Pekerjaan dan Pencen liat): Amaun caruman = syer majikan + syer pekerja.
    - Skim 2 (Bencana Pekerjaan): Amaun caruman = syer majikan sahaja.
 Sila Rujuk Jadual Caruman PERKESO semasa membuat potongan gaji pekerja.
10. Jumlah amaun caruman bagi setiap muka surat.
11. Nama, tandatangan, no telefon dan cop majikan diisi pada setiap lembaran.
12. Kaedah Pembayaran: Cek - catatkan nama bank pembayar. Lain-lain – catatkan jenis kaedah bayaran.

**Catatan**

- (1) Bayaran caruman pada setiap keping cek/kiriman wang/deraf bank hendaklah sama dengan jumlah besar di Borang 8A bagi setiap bulan carum.
- (2) Bayaran menggunakan POSTDATED cek adalah TIDAK DIBENARKAN.
- (3) Penerimaan tunai hanya dibenarkan di kaunter bank sahaja.

**B. PERHATIAN**

1. Sila pastikan tulisan/angka/cop majikan/ cop cawangan ejen pemungut tidak menyentuh mana-mana garisan atau kotak yang disediakan. Cop majikan/cop cawangan ejen pemungut hanya dibenarkan di ruangan yang disediakan sahaja.
2. Sila layari laman web <http://www.perkeso.gov.my> untuk maklumat terperinci cara mengisi Borang 8A atau hubungi Pusat Khidmat Pelanggan PERKESO di talian 1-300-226000.
3. Slip Bayaran Bank dan salinan Borang 8A perlu disimpan oleh majikan bagi tujuan rekod.



## Appendix U20: Rate of Contribution for SOCSO

6/1/2017		Rate Of Contributions			
<b>RATE OF CONTRIBUTIONS</b>					
No.	Actual monthly wage of the month	First Category (Employment Injury Scheme and Invalidity Scheme)			Second Category (Employment Injury Scheme)
		Employer's Contribution	Employee's Contribution	Total Contribution	Contribution by Employer only
1.	Wages up to RM30	40 cents	10 cents	50 cents	30 cents
2.	When wages exceed RM30 but not RM50	70 cents	20 cents	90 cents	50 cents
3.	When wages exceed RM50 but not RM70	RM1.10	30 cents	RM1.40	80 cents
4.	When wages exceed RM70 but not RM100	RM1.50	40 cents	RM1.90	RM1.10
5.	When wages exceed RM100 but not RM140	RM2.10	60 cents	RM2.70	RM1.50
6.	When wages exceed RM140 but not RM200	RM2.95	85 cents	RM3.80	RM2.10
7.	When wages exceed RM200 but not RM300	RM4.35	RM1.25	RM5.60	RM3.10
8.	When wages exceed RM300 but not RM400	RM6.15	RM1.75	RM7.90	RM4.40
9.	When wages exceed RM400 but not RM500	RM7.85	RM2.25	RM10.10	RM5.60
10.	When wages exceed RM500 but not RM600	RM9.65	RM2.75	RM12.40	RM6.90
11.	When wages exceed RM600 but not RM700	RM11.35	RM3.25	RM14.60	RM8.10
12.	When wages exceed RM700 but not RM800	RM13.15	RM3.75	RM16.90	RM9.40
13.	When wages exceed RM800 but not RM900	RM14.85	RM4.25	RM19.10	RM10.60
14.	When wages exceed RM900 but not RM1,000	RM16.65	RM4.75	RM21.40	RM11.90
15.	When wages exceed RM1,000 but not RM1,100	RM18.35	RM5.25	RM23.60	RM13.10
16.	When wages exceed RM1,100 but not RM1,200	RM20.15	RM5.75	RM25.90	RM14.40
17.	When wages exceed RM1,200 but not RM1,300	RM21.85	RM6.25	RM28.10	RM15.60
18.	When wages exceed RM1,300 but not RM1,400	RM23.65	RM6.75	RM30.40	RM16.90
19.	When wages exceed RM1,400 but not RM1,500	RM25.35	RM7.25	RM32.60	RM18.10
20.	When wages exceed RM1,500 but not RM1,600	RM27.15	RM7.75	RM34.90	RM19.40
21.	When wages exceed RM1,600 but not RM1,700	RM28.85	RM8.25	RM37.10	RM20.60
22.	When wages exceed RM1,700 but not RM1,800	RM30.65	RM8.75	RM39.40	RM21.90
23.	When wages exceed RM1,800 but not RM1,900	RM32.35	RM9.25	RM41.60	RM23.10
24.	When wages exceed RM1,900 but not	RM34.15	RM9.75	RM43.90	RM24.40



<http://www.perkaso.gov.my/en/social-security-protection/employer-employees-eligibility/rate-of-contributions.html?tmpl=component&print=1>
1/2

6/1/2017		Rate Of Contributions			
	RM2,000				
25.	When wages exceed RM2,000 but not RM2,100	RM35.85	RM10.25	RM46.10	RM25.60
26.	When wages exceed RM2,100 but not RM2,200	RM37.65	RM10.75	RM48.40	RM26.90
27.	When wages exceed RM2,200 but not RM2,300	RM39.35	RM11.25	RM50.60	RM28.10
28.	When wages exceed RM2,300 but not RM2,400	RM41.15	RM11.75	RM52.90	RM29.40
29.	When wages exceed RM2,400 but not RM2,500	RM42.85	RM12.25	RM55.10	RM30.60
30.	When wages exceed RM2,500 but not RM2,600	RM44.65	RM12.75	RM57.40	RM31.90
31.	When wages exceed RM2,600 but not RM2,700	RM46.35	RM13.25	RM59.60	RM33.10
32.	When wages exceed RM2,700 but not RM2,800	RM48.15	RM13.75	RM61.90	RM34.40
33.	When wages exceed RM2,800 but not RM2,900	RM49.85	RM14.25	RM64.10	RM35.60
34.	When wages exceed RM2,900 but not RM3,000	RM51.65	RM14.75	RM66.40	RM36.90
35.	When wages exceed RM3,000 but not RM3,100	RM53.35	RM15.25	RM68.60	RM38.10
36.	When wages exceed RM3,100 but not RM3,200	RM55.15	RM15.75	RM70.90	RM39.40
37.	When wages exceed RM3,200 but not RM3,300	RM56.85	RM16.25	RM73.10	RM40.60
38.	When wages exceed RM3,300 but not RM3,400	RM58.65	RM16.75	RM75.40	RM41.90
39.	When wages exceed RM3,400 but not RM3,500	RM60.35	RM17.25	RM77.60	RM43.10
40.	When wages exceed RM3,500 but not RM3,600	RM62.15	RM17.75	RM79.90	RM44.40
41.	When wages exceed RM3,600 but not RM3,700	RM63.85	RM18.25	RM82.10	RM45.60
42.	When wages exceed RM3,700 but not RM3,800	RM65.65	RM18.75	RM84.40	RM46.90
43.	When wages exceed RM3,800 but not RM3,900	RM67.35	RM19.25	RM86.60	RM48.10
44.	When wages exceed RM3,900 but not RM4,000	RM69.05	RM19.75	RM88.80	RM49.40
45.	When wages exceed RM4,000	RM69.05	RM19.75	RM88.80	RM49.40

<http://www.perkeso.gov.my/en/social-security-protection/employer-employee-eligibility/rate-of-contributions.html?tmpl=component&print=1>

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## Appendix U21: Trademarks Fee

 Code	 Code	Matters of Proceedings	E- Filing (RM)	Manual Filing (RM)
CD0	CD0	Application for certified copy (per copy)	-	10
TM2	TM2	Application for registration of Trade Marks Agent	1,300	1,350
TM3	TM3	Application for renewal of registration of Trade Marks Agent	520	570
TM4	TM4	Request for registrar's preliminary advice as to registrability of a mark	130	140
TM4A	TM4A	Request for search	330	360

## Appendix U22: Patent Fee

MATTER/ PROCEEDING	E- FILING FEE (RM)	MANUAL FEE (RM)
<b>a. Request for grant of patent</b>	260.00	290.00
<b>b. Claims</b>		
• for 1st ten claim	Nil	Nil
• for every additional claim (per claim)	20.00	20.00
<b>Declaration of withdrawal of application</b>	Nil	Nil
<b>Entering national phase</b>	260.00	290.00
• for first ten claims	20.00	20.00
• for every additional claim (per claim)		
<b>Request for reinstatement under section 780A</b>	650.00 per month of delay	690.00 per month of delay
<b>Request for substantive examination</b>	950.00	1,100.00
<b>Request for modified substantive examination</b>	600.00	640.00
<b>Request for deferment of filing of request for examination or provision of information</b>	Nil	Nil
<b>Request for certified copies or extracts</b>	70.00	80.00
<b>Request to amend register</b>	70.00	80.00
<b>Request for reinstatement of lapsed patent</b>	130.00	140.00
<b>Request for licence to exploit patented invention</b>	Nil	Nil

Request to convert application for patent into application for certificate of utility innovation or <i>vice versa</i>	260.00	290.00
Request for approval of expedited examination	200.00	250.00
Request for Expedited examination	2,000.00	2,200.00
Application for recording of assignment or transmission	130.00	140.00
Application for entry in Register that any person may obtain a licence	70.00	80.00
Application for cancellation of entry in Register that any person may obtain a licence	70.00	80.00
Request to amend patent	70.00	80.00
Appointment or change of patent agent	70.00	80.00
Application for registration of patent agent	2,600.00	2,670.00
Application for registration as candidate for examination	130.00	140.00
Application to re-sit examination	130.00	140.00
Application for renewal of registration of patent agent	550.00	590.00
Furnishment of address for service	130.00	140.00
Request for extension of time	260.00	290.00
Statement justifying the applicant's rights to the patent/certificate	70.00	80.00
Request for recording of particulars of licence contract in Register	130.00	140.00
Request for recording expiry or termination of licence contract in Register	100.00	110.00
Application for compulsory licence	100.00	110.00
Request for amendment of decision	100.00	110.00
Request for cancellation of compulsory licence	100.00	110.00
Application for grant of certificate of utility innovation	130.00	140.00
Application to extend term of certificate for utility innovation	130.00	140.00
Request to amend application for grant of patent	70.00	80.00

ITEM	MATTER/PROCEEDING	E-FILING FEES (RM)	MANUAL FEES (RM)
1.	<b>Copy of patent</b>	40.00	40.00
2.	<b>Copy of search report</b>	30.00	30.00
3.	<b>Examination of register</b>	15.00 per hour	15.00 per hour
4.	<b>Certified copies or extract from Register</b>	15.00 per page	15.00 per page
5.	<b>Copy extract from Register</b>	3.00 per page	3.00 per page
6.	<b>Fee for public inspection of information relating to patent application</b>	30.00 per hour	30.00 per hour
7.	<b>Certified copies or extract of any information :-</b>		
	(a) for first five pages	100.00 per page	100.00 per page
	(b) for every additional page	3.00 per page	3.00 per page
8.	<b>Annual fee for patent:</b>		
	a) for second year after grant of patent	260	290
	b) for third year after grant of patent	330	360
	c) for fourth year after grant of patent	390	420
	d) for fifth year after grant of patent	460	490
	e) for sixth year after grant of patent	520	560
	f) for seventh year after grant of patent	600	640
	g) for eighth year after grant of patent	650	690
	h) for ninth year after grant of patent	720	760
	i) for tenth year after grant of patent	780	820
	j) for eleventh year after grant of patent	850	890
	k) for twelfth year after grant of patent	900	940
	l) for thirteenth year after grant of patent	1,050.00	1,100.00
	m) for fourteenth year after grant of patent	1,200.00	1,250.00
	n) for fifteenth year after grant of patent	1,300.00	1,350.00
	o) for sixteenth year after grant of patent	1,600.00	1,660.00
	p) for seventeenth year after grant of patent	1,850.00	1,900.00
	q) for eighteenth year after grant of patent	2,100.00	2,200.00
	r) for nineteenth year after grant of patent	2,400.00	2,500.00
	s) for twentieth year after grant of patent	2,600.00	2,700.00
9.	<b>Surcharge for reinstatement</b>	100 % of fee for year concerned	100 % of fee for year concerned
10.	<b>Surrender of compulsory licence</b>	80.00	90.00
11.	<b>Surrender of patent</b>	80.00	90.00
12.	<b>Annual fee for certificate for utility innovation :</b>		
	(a) for third year after grant of certificate	160	170
	(b) for fourth year after grant of certificate	210	240
	(c) for fifth year after grant of certificate	210	240
	(d) for sixth year after grant of certificate	260	290
	(e) for seventh year after grant of certificate	260	290
	(f) for eighth year after grant of certificate	320	350

	(g) for ninth year after grant of certificate	320	350
	(h) for tenth year after grant of certificate	370	400
	(i) for eleventh year after grant of certificate	520	560
	(j) for twelfth year after grant of certificate	780	820
	(k) for thirteenth year after grant of certificate	910	950
	(l) for fourteenth year after grant of certificate	1,050.00	1,100.00
	(m) for fifteenth year after grant of certificate	1,300.00	1,350.00
	(n) for sixteenth year after grant of certificate	1,450.00	1,500.00
	(o) for seventeenth year after grant of certificate	1,600.00	1,650.00
	(p) for eighteenth year after grant of certificate	1,700.00	1,750.00
	(q) for nineteenth year after grant of certificate	1,850.00	1,900.00
	(r) for twentieth year after grant of certificate	1,950.00	2,000.00
<b>13.</b>	<b>Holding of hearing</b>	130.00	140.00
<b>14.</b>	<b>Certificate of grant of a patent</b>	Nil	Nil
<b>15.</b>	<b>Certificate for a utility innovation</b>	Nil	Nil
<b>15A.</b>	<b>Examination fee</b>	130.00 per subject	140.00 per subject
<b>16.</b>	<b>Appeal against examination results</b>	260.00 per subject	290.00 per subject
<b>17.</b>	<b>Extension of time for every month or part of a month)</b>	70.00	80.00
<b>18.</b>	<b>Surcharge for late payment of annual fee</b>	100 % of fee for year concerned	100 % of fee for year concerned
<b>19.</b>	<b>Public search through computer</b>	30.00	30.00
<b>20.</b>	<b>Computer print-out (Bibliography data)</b>	10.00	10.00
<b>21.</b>	<b>Permitted information (upon request)</b>		
	(a) for less than 10 pages	130.00	140.00
	(b) for the subsequent pages	7.00	7.00
<b>22.</b>	<b>Fee for preparing international application</b>	3.00 per page	3.00 per page

### Appendix U23: Estimated Sales and Production Cost

Sales Estimation, Production Rate, Beginning Inventory and Ending Inventory for 2018-2022																
Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Qty	Total (RM)	
2018	Beginning Inventory	0	40	80	90	80	120	60	50	140	110	95	135	0	0	
	Purchased of raw material	1,800		2,050		2,000		2,100		1,800		5,950		15,700	408,200	
	Beginning Material	0	1,000	100	1,050	50	1,050	150	1,300	200	1,100	200	3,250	0	0	
	Production Planning	900	900	1,200	1,000	1,000	1,000	1,000	1,200	1,000	1,000	2,900	3,200	16,300		
	Actual Production	800	900	1,100	1,000	1,000	900	950	1,100	900	900	2,900	3,200	15,650	406,900	
	Ending Material	1,000	100	1,050	50	1,050	150	1,300	200	1,100	200	3,250	50	50	1,300	
	Buffer Stock (Safety)	10	10	10	10	10	10	10	10	10	10	10	10	10	120	3,120
	Sales	750	850	1,080	1,000	950	950	950	1,000	920	905	2,850	3,250	15,455	927,300	
	Ending Inventory	40	80	90	80	120	60	50	140	110	95	135	75	75	1,950	
Total Ending inventory at year end (Finished goods + non-finish goods)														125	3,250	
2019	Beginning Inventory	75	65	90	80	100	50	40	80	60	100	110	150	75	1,950	
	Purchased of Raw Material	2,400		3,300		2,500		2,500		2,400		7,150		20,250	526,500	
	Beginning Material	50	1,350	115	1,615	130	1,370	70	1,270	30	1,280	160	3,860	50	1,300	
	Production Planning	1,150	1,250	1,900	1,500	1,300	1,300	1,300	1,250	1,200	1,200	3,500	3,800	20,650		
	Actual Production	1,100	1,235	1,800	1,485	1,260	1,300	1,300	1,240	1,150	1,120	3,450	3,800	20,240	526,240	
	Ending Material	1,350	115	1,615	130	1,370	70	1,270	30	1,280	160	3,860	60	60	1,560	
	Buffer Stock (Safety)	10	10	10	10	10	10	10	10	10	10	10	10	10	120	3,120
	Sales	1,100	1,200	1,800	1,455	1,300	1,300	1,250	1,250	1,100	1,100	3,400	3,850	20,105	1,206,300	
	Ending Inventory	65	90	80	100	50	40	80	60	100	110	150	90	90	2,340	
Total Ending inventory at year end (Finished goods + non-finish goods)														150	3,900	
2020	Beginning Inventory	90	50	80	64	74	70	60	50	40	81	131	171	90	2,340	
	Purchased of Raw Material	3,300		5,860		3,440		2,620		2,800		12,240		30,260	786,760	
	Beginning Material	60	1,540	100	2,760	160	1,894	194	1,464	114	1,654	129	6,519	60	1,560	
	Production Planning	1,850	1,500	3,300	2,650	1,800	1,800	1,400	1,400	1,300	1,600	5,900	6,460	30,960		
	Actual Production	1,820	1,440	3,200	2,600	1,706	1,700	1,350	1,350	1,260	1,525	5,850	6,450	30,251	786,526	
	Ending Material	1,540	100	2,760	160	1,894	194	1,464	114	1,654	129	6,519	69	69	1,794	
	Buffer Stock (Safety)	10	10	10	10	10	10	10	10	10	10	10	10	10	120	3,120
	Sales	1,850	1,400	3,206	2,580	1,700	1,700	1,350	1,350	1,209	1,465	5,800	6,550	30,160	1,809,600	
	Ending Inventory	50	80	64	74	70	60	50	40	81	131	171	61	61	1,586	
Total Ending inventory at year end (Finished goods + non-finish goods)														130	3,380	



Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Qty	Total (RM)	
2021	Beginning Inventory	61	51	50	65	85	70	45	55	50	110	150	171	61	1,586	
	Purchased of Raw Material	4,240		6,650		4,055		3,500		3,880		13,980		36,305	943,930	
	Beginning Material	69	1,909	150	2,975	145	2,150	110	1,840	85	2,365	115	7,264	69	1,794	
	Production Planning	2,500	1,800	3,880	2,900	2,100	2,100	1,800	1,800	1,600	2,300	6,850	7,230	36,860		
	Actual Production	2,400	1,759	3,825	2,830	2,050	2,040	1,770	1,755	1,600	2,250	6,831	7,200	36,310	944,060	
	Ending Material	1,909	150	2,975	145	2,150	110	1,840	85	2,365	115	7,264	64	64	1,664	
	Buffer Stock (Safety)	10	10	10	10	10	10	10	10	10	10	10	10	10	120	3,120
	Sales	2,400	1,750	3,800	2,800	2,055	2,055	1,750	1,750	1,530	2,200	6,800	7,300	36,190	2,171,400	
	Ending Inventory	51	50	65	85	70	45	55	50	110	150	171	61	61	1,586	
Total Ending inventory at year end (Finished goods + non-finish goods)														125	3,250	

Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Qty	Total (RM)	
2022	Beginning Inventory	61	51	91	41	56	66	62	52	42	104	164	180	61	1,586	
	Purchased of Raw Material	5,240		8,050		5,400		4,160		4,620		16,060		43,530	1,131,780	
	Beginning Material	64	2,454	104	3,594	169	2,849	143	2,203	103	2,773	203	8,637	64	1,664	
	Production Planning	2,900	2,400	4,600	3,450	2,780	2,780	2,150	2,150	2,070	2,650	7,650	8,600	44,180		
	Actual Production	2,850	2,350	4,560	3,425	2,720	2,706	2,100	2,100	1,950	2,570	7,626	8,580	43,537	1,131,962	
	Ending Material	2,454	104	3,594	169	2,849	143	2,203	103	2,773	203	8,637	57	57	1,482	
	Buffer Stock (Safety)	10	10	10	10	10	10	10	10	10	10	10	10	10	120	3,120
	Sales	2,850	2,300	4,600	3,400	2,700	2,700	2,100	2,100	1,878	2,500	7,600	8,700	43,428	2,605,680	
	Ending Inventory	51	91	41	56	66	62	52	42	104	164	180	50	50	1,300	
Total Ending inventory at year end (Finished goods + non-finish goods)														107	2,782	

Source: Developed for the research

### Appendix U24: Estimated Labour Cost

Labor Cost for 2018-2022															
Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	
2018	No. of worker needed for assembly (part time)	1	2	2	2	2	2	2	2	2	2	4	4	27	
	No. of worker for molding (permanent)	2	2	2	2	2	2	2	2	2	2	2	2	2	
	No. of worker for quality control (permanent)	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Total no. of workers involve in production	4	5	5	5	5	5	5	5	5	5	7	7	30	
	Basic working day	24	24	24	24	24	24	24	24	24	24	24	24	24	288
	Public Holidays (Day)		2			1	2	1	1	1		2			10
	Total working day	24	22	24	24	23	22	23	23	23	23	24	22	24	278
	Total working hour 8hrs/day	192	176	192	192	184	176	184	184	184	184	192	176	192	
	Salary per month of part time worker	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
	Total labours cost (part time)	1,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	4,000	4,000	27,000

Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	
2019	No. of worker needed for assembly (part time)	2	2	3	2	2	2	2	2	2	2	5	5	31	
	No. of worker for molding (permanent)	2	2	2	2	2	2	2	2	2	2	2	2	2	
	No. of worker for quality control (permanent)	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Total no. of workers involve in production	5	5	6	5	5	5	5	5	5	5	8	8	34	
	Basic working day	24	24	24	24	24	24	24	24	24	24	24	24	24	288
	Public Holidays (Day)		2			1	2	1	1	1	1	1	1		10
	Total working day	24	22	24	24	23	22	23	23	23	23	23	23	24	278
	Total working hour 8hrs/day	192	176	192	192	184	176	184	184	184	184	184	184	192	
	Salary per month of part time worker	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
	Total labours cost (part time)	2,000	2,000	3,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	5,000	5,000	31,000

Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	
2020	No. of worker needed for assembly (part time)	3	2	4	4	3	3	2	2	2	2	8	9	44	
	No. of worker for molding (permanent)	2	2	2	2	2	2	2	2	2	2	2	2	2	
	No. of worker for quality control (permanent)	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Total no. of workers involve in production	6	5	7	7	6	6	5	5	5	5	11	12	47	
	Basic working day	24	24	24	24	24	24	24	24	24	24	24	24	24	288
	Public Holidays (Day)	2				3		1	1	1		2			10
	Total working day	22	24	24	24	21	24	23	23	23	23	24	22	24	278
	Total working hour 8hrs/day	176	192	192	192	168	192	184	184	184	184	192	176	192	
	Salary per month of part time worker	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
	Total labours cost (part time)	3,000	2,000	4,000	4,000	3,000	3,000	2,000	2,000	2,000	2,000	2,000	8,000	9,000	44,000

Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	
2021	No. of worker needed for assembly (part time)	3	3	5	4	3	3	3	3	2	3	9	9	50	
	No. of worker for molding (permanent)	2	2	2	2	2	2	2	2	2	2	2	2	2	
	No. of worker for quality control (permanent)	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Total no. of workers involve in production	6	6	8	7	6	6	6	6	5	6	12	12	53	
	Basic working day	24	24	24	24	24	24	24	24	24	24	24	24	24	288
	Public Holidays (Day)		2			3		1	1	1		2			10
	Total working day	24	22	24	24	21	24	23	23	23	24	22	24	24	278
	Total working hour	192	176	192	192	168	192	184	184	184	192	176	192		
	Salary per month of part time worker	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		
	Total labours cost (part time)	3,000	3,000	5,000	4,000	3,000	3,000	3,000	3,000	2,000	3,000	9,000	9,000	50,000	

Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	
2022	No. of worker needed for assembly (part time)	4	3	6	5	4	4	3	3	3	4	10	11	60	
	No. of worker for molding (permanent)	2	2	2	2	2	2	2	2	2	2	2	2	2	
	No. of worker for quality control (permanent)	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Total no. of workers involve in production	7	6	9	8	7	7	6	6	6	7	13	14	63	
	Basic working day	24	24	24	24	24	24	24	24	24	24	24	24	24	288
	Public Holidays (Day)		2			3	1		1	1	1	1			10
	Total working day	24	22	24	24	21	23	24	23	23	23	23	23	24	278
	8hrs/day	192	176	192	192	168	184	192	184	184	184	184	184	192	
	Salary per month of part time worker	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		
	Total labours cost (part time)	4,000	3,000	6,000	5,000	4,000	4,000	3,000	3,000	3,000	4,000	10,000	11,000	60,000	

Source: Developed for the research

\*expected 1 worker can assembly 800 finish product 1 month

### Appendix U25: Estimated Production Tools Cost

Production Tools Cost for 2018-2022															
Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Qty	Total (RM)
2018	Thermosetting Resin (per kg)	8	9	11	10	10	9	10	11	9	9	29	32	157	1,256
	Mould Release (per kg)	8	9	11	10	10	9	10	11	9	9	29	32	157	1,256
	Hand Tools (per set-Scissors, Cutters and Knives)	4	2									2	2	10	400
	Cotton Glove	8	8	8	8	8	8	8	8	8	8	12	12	104	624
	Pallet	10		10		10		10		10		10		60	600
	Carton Box	71		88		79		85		75		254		652	652
	Stretch Film (roll)	7		9		8		9		8		25		66	330
	Packaging Plastic	1,700		2,100		1,900		2,100		1,800		6,100		15,700	785
	Carton Sealing Tape	4		4		4		4		4		13		33	66
Total Cost															5,969

Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Qty	Total (RM)
2019	Thermosetting Resin (per kg)	11	12	18	15	13	13	13	12	12	11	34	38	202	1,616
	Mould Release (per kg)	11	12	18	15	13	13	13	12	12	11	34	38	202	1,616
	Hand Tools (per set-Scissors, Cutters and Knives)						4					4	4	12	480
	Cotton Glove	10	8	10	8	8	8	8	8	8	8	14	14	112	672
	Pallet	10		10		10		10		10		10		60	600
	Carton Box	97		137		107		106		94		302		843	843
	Stretch Film (roll)	10		14		11		11		9		30		84	420
	Packaging Plastic	2,330		3,280		2,560		2,540		2,270		7,250		20,230	1,012
	Carton Sealing Tape	4		7		4		5		5		15		42	84
Total Cost															7,343

Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Qty	Total (RM)
2020	Thermosetting Resin (per kg)	19	14	32	26	17	17	14	13	13	15	59	64	303	2,424
	Mould Release (per kg)	19	14	32	26	17	17	14	13	13	15	59	64	303	2,424
	Hand Tools (per set-Scissors, Cutters and Knives)	5										3	3	11	440
	Cotton Glove	12	8	12	12	10	10	8	8	8	8	20	22	138	828
	Pallet	10		10		10		10		10		10		60	600
	Carton Box	136		242		141		113		117		513		1,262	1,262
	Stretch Film (roll)	14		24		14		11		12		51		126	630
	Packaging Plastic	3,260		5,800		3,400		2,700		2,800		12,300		30,260	1,513
	Carton Sealing Tape	7		12		7		6		6		26		64	128
Total Cost															10,249

Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Qty	Total (RM)
2021	Thermosetting Resin (per kg)	24	18	38	28	21	20	18	17	16	23	68	72	363	2,904
	Mould Release (per kg)	24	18	38	28	21	20	18	17	16	23	68	72	363	2,904
	Hand Tools (per set-Scissors, Cutters and Knives)	5		2								3	3	13	520
	Cotton Glove	12	10	14	12	10	10	10	10	8	10	22	22	150	900
	Pallet	10		10		10		10		10		10		60	600
	Carton Box	174		277		170		147		161		585		1514	1,514
	Stretch Film (roll)	17		28		17		15		16		59		152	760
	Packaging Plastic	4,160		6,660		4,090		3,530		3,850		14,030		36,320	1,816
	Carton Sealing Tape	9		14		9		7		8		29		76	152
Total Cost															12,070

Year	Items	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Qty	Total (RM)
2022	Thermosetting Resin (per kg)	29	23	46	34	28	27	21	21	19	26	76	86	436	3,488
	Mould Release (per kg)	29	23	46	34	28	27	21	21	19	26	76	86	436	3,488
	Hand Tools (per set-Scissors, Cutters and Knives)	3		4								5	5	17	680
	Cotton Glove	14	10	16	14	12	12	10	10	10	12	24	26	170	1,020
	Pallet	10		10		10		10		10		10		60	600
	Carton Box	218		333		226		175		188		675		1815	1,815
	Stretch Film (roll)	22		33		26		18		19		68		186	930
	Packaging Plastic	5,200		7,990		5,420		4,200		4,520		16,210		43,540	2,177
	Carton Sealing Tape	11		17		11		9		9		34		91	182
Total Cost															14,380

Source: Developed for the research

\*Assuming:

1kg of thermosetting resin can use for 100 units products.

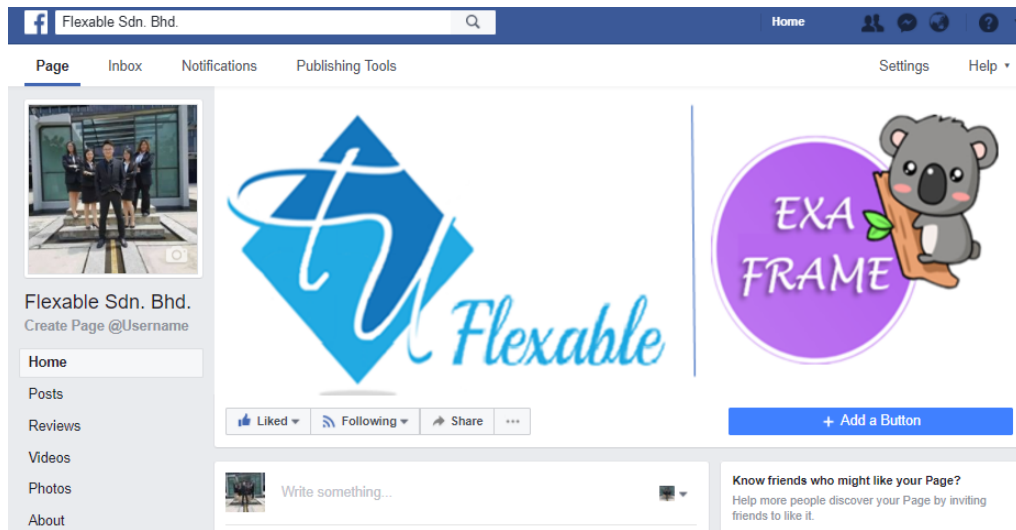
1kg of mould release can use for 100 units products.

1 carton box can pack 24 units products.

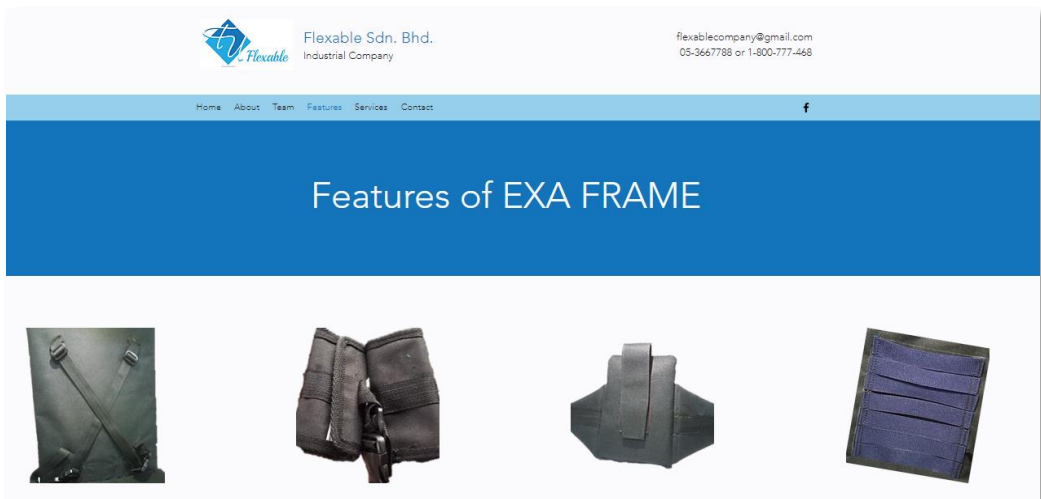
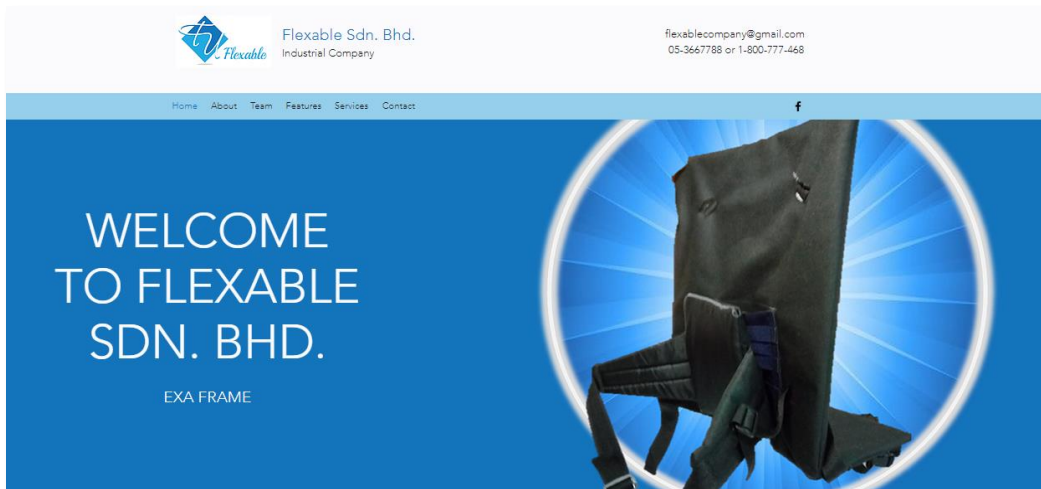
1 roll of stretch film can use for 10 carton boxes.

1 roll of carton sealing tape can use for 20 carton boxes.

## Appendix U26: Flexible Sdn. Bhd. Facebook Page



## Appendix U27: Flexible Sdn. Bhd. Company Website



Appendix U28: Poster of EXA FRAME



**UNIVERSITI TUNKU ABDUL RAHMAN  
FACULTY OF BUSINESS AND FINANCE**

*FINAL YEAR PROJECT*

## EXA FRAME

**RM 79**

**Sternum Strap**



- Adjustable Width
- Movable

**"X" Layer**



- Fix Backpack's Position
- Anti Shaking Feature

**GPS**



- Locate User's Position

**Length Adjustment**



- Adjustable Torso Length

**Waist Strap**



- Distribute Backpack's Weight
- Support User's Waist

**PROBLEM**

**School Bag Overweight**



FLEXIBLE SDN. BHD.  
 (Incorporated in Malaysia)  
 (No. 467796) (The 46th company of public list) (http://flexible.sdnbhd.com.my/)  
 LOH SHANG CHEE | LIM LIU JIN | LIM SZE KEE | TAN YING HING | WONG TONG THING



**Appendix U29: Company Business Card**

Front:



Back:



### Appendix U30: Company Uniform



Front



Back

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**Appendix U31: Resume of Management Team****Resume of Chief Executive Officer****A. Personal Particulars**

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Name : Loh Zhang Chee  
Age : 23  
Date : 6/8/1994  
Nationality : Malaysian  
Gender : Male  
Race : Chinese  
Religion : Buddhist  
Marital Status : Single

**B. Contact Info**

---

Address : E2596, Lorong Sri Teruntum 83, Taman Zurina Jalan Wong Ah Jang,  
25100 Kuantan, Pahang.  
Mobile No : +6016-9612280  
Email Address: zhangchee1994@hotmail.com

**C. Education Qualifications**

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**I. Secondary School**

Institution : Sekolah Menengah Kebangsaan Tanah Putih  
Duration : 2007-2011  
Qualification : Sijil Pelajaran Malaysia (SPM) equivalent to O-level

**II. Pre-University**

Institution : Sekolah Menengah Kebangsaan Tanah Putih  
Duration : 2012-2013  
Qualification : Sijil Tinggi Pelajaran Malaysia (STPM) equivalent to A-level

**III. Bachelor Degree**

Institution : University Tunku Abdul Rahman  
Course : Bachelor of Business Administration (Honours)  
Entrepreneurship

Duration : 2014-2017  
CGPA : 2.987

#### **D. Extra Co-curriculars Activities**

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2007-2011 Monitor of Class (2008-2009)  
President of Taekwondo (2009-2011)  
Champion for two years of Public Speaking Competition (2009-2011)

2012-2013 President of Taekwondo (2012-2013)  
Secretary of Ping Pong Society (2012-2013)

2015-2017 Member of Young Entrepreneurs Society (2015-2017)  
Complete talk on How to Manage a Company Reflect to the Public (2016)  
Complete talk on The Effective Leader (2017)

#### **E. Past Working Experiences**

---

2014 Sales Representative (9 months)  
*Workplace: Niki*

2016 Operation Admin (3 months Industry Training)  
*Workplace: Westlake International School*

#### **F. Personal Strength**

---

- Leadership, approachable, hardworking and responsible
- Able to work in team efficiently
- Able to communicate well with other
- Critical thinker and good observer

#### **G. Languages Proficiency (1= Worst, 5= Best)**

---

Spoken : Mandarin (4), English (4), Bahasa Malaysia (4), Cantonese (4)  
Writing : Mandarin (4), English (4), Bahasa Malaysia (4)

#### **H. Reference**

---

Name : Ms. Sai Mei Ling  
Company : University Tunku Abdul Rahman  
Position : Lecturer  
Contact : 014-9022094  
Email : saiml@utar.edu.my

---

## Resume of Human Resource Manager

### A. Personal Particulars

---

Name : Lim Sze Kee  
Age : 23  
Date : 15/7/1994  
Nationality : Malaysian  
Gender : Female  
Race : Chinese  
Religion : Buddhist  
Marital Status : Single



### B. Contact Info

---

Address : 247, Jalan Ipoh Kg Chui Chak, 36700 Langkap, Perak, Malaysia  
Mobile No : +6016-5628313  
Email Address: xiaoan047@hotmail.com

### C. Education Qualifications

---

#### I. Secondary School

Institution : SMK Dato' Sagor  
Duration : 2007-2011  
Qualification : Sijil Pelajaran Malaysia (SPM) equivalent to O-level

#### II. Pre-University

Institution : SMK Horley Methodist  
Duration : 2012-2013  
Qualification : Sijil Tinggi Pelajaran Malaysia (STPM) equivalent to A-level

#### III. Bachelor Degree

Institution : University Tunku Abdul Rahman  
Course : Bachelor of Business Administration (Honours)  
Entrepreneurship  
Duration : 2014-2017  
CGPA : 2.699

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#### **D. Extra Co-curriculars Activities**

---

- 2007-2011     Secretary Golf Club (2010-2011)  
 Vice president of Skim Pinjaman Buku Teks (SPBT) Club (2011)  
 Record Operator of St. John Ambulance Society (2009-2011)  
 Secretary sport home (Laksamana) (2011)
- 2012-2013     Treasurer of Librarian society (Exco) (2012-2013)  
 Secretary of Taekwondo Club (2012-2013)  
 Auditor of Math Club (2012-2013)  
 Member of Volleyball Club (2012-2013)
- 2015-2017     Member of Young Entrepreneurs Society (2015-2017)  
 Member of Entrepreneurship Society (2015-2017)  
 Complete talk on Effective Time Management (2017)

#### **E. Past Working Experiences**

---

- 2011-2012     Part Time Job Commis II (3 months)  
*Work place: Genting Highland, VIP Kitchen*
- 2014             Sales Asistant (6 months)  
*Work place: Genting Highland, Padini Concept Store*
- 2016             Admin (3 months Industrial Training)  
*Work place: Nyok Lan Garments Sdn Bhd.*

#### **F. Personal Strength**

---

- Leadership, friendly, passion, hardworking and responsible
- Highly motivated, understanding and adaptability
- Able to work in team efficiently
- Able to communicate well with other

#### **G. Languages Proficiency (1= Worst, 5= Best)**

---

- Spoken         : Mandarin (5), English (4), Bahasa Malaysia (4), Cantonese (4)  
 Writing         : Mandarin (5), English (4), Bahasa Malaysia (4)

#### **H. Reference**

---

- Name            : Ms. Sai Mei Ling  
 Company        : University Tunku Abdul Rahman  
 Position        : Lecturer  
 Contact         : 014-9022094  
 Email            : saiml@utar.edu.my
-

## Resume of Marketing and Public Relation Manager

### **A. Personal Particulars**

---

Name : Tan Ying Ying  
Age : 23  
Date : 26/4/1994  
Nationality : Malaysian  
Gender : Female  
Race : Chinese  
Religion : Buddhist  
Marital Status : Single



### **B. Contact Info**

---

Address : 16, Jalan PE 7, Taman Paya Emas, 76450, Melaka.  
Mobile No : +6011-35075520  
Email Address: tanyingying@gmail.com

### **C. Education Qualifications**

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#### **I. Secondary School**

Institution : SMK Tun Haji Abdul Malek  
Duration : 2007-2011  
Qualification : Sijil Pelajaran Malaysia (SPM) equivalent to O-level

#### **II. Pre-University**

Institution : SMK Tun Tuah  
Duration : 2012-2013  
Qualification : Sijil Tinggi Pelajaran Malaysia (STPM) equivalent to A-level

#### **III. Bachelor Degree**

Institution : University Tunku Abdul Rahman  
Course : Bachelor of Business Administration (Honours)  
Entrepreneurship  
Duration : 2014-2017  
CGPA : 3.014

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#### **D. Extra Co-curriculars Activities**

---

- 2007-2011     Secretary of Persatuan Bahasa Cina (2010-2011)  
 Treasurer of Basketball Club (2010-2011)  
 School Perfect (2010-2011)
- 2012-2013     Treasurer of Scout Society (2012-2013)  
 Secretary of Ping Pong Club (2012-2013)  
 Monitor of class (2012-2013)
- 2015-2017     Member of Young Entrepreneurs Society (2015-2017)  
 Member of Entrepreneurship Society (2015-2017)  
 Complete talk on Thinking Out of the Box (2016)  
 Complete talk on Making a Difference for Success (2016)

#### **E. Past Working Experiences**

---

- 2012             Tutor (6 months)  
*Workplace: Super Tuition Centre*
- 2014             Sales Representative (9 months)  
*Workplace: Pensonic Group*
- 2016             Marketing Admin (3 months Industry Training)  
*Workplace: Westlake International School*

#### **F. Personal Strength**

---

- Friendly, approachable, hardworking and responsible
- Able to work in team efficiently
- Able to communicate well with other
- Have self-discipline and good learner

#### **G. Languages Proficiency (1= Worst, 5= Best)**

---

Spoken            : Mandarin (4), English (4), Bahasa Malaysia (5), Hokkien (4)  
 Writing            : Mandarin (4), English (4), Bahasa Malaysia (5)

#### **H. Reference**

---

Name              : Ms. Sai Mei Ling  
 Company          : University Tunku Abdul Rahman  
 Position          : Lecturer  
 Contact            : 014-9022094  
 Email              : saiml@utar.edu.my

---



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## Resume of Accounting and Finance Manager

### A. Personal Particulars

---

Name : Lim Liew Jiun  
Age : 23  
Date : 6/7/1994  
Nationality : Malaysian  
Gender : Female  
Race : Chinese  
Religion : Buddhist  
Marital Status : Single



### B. Contact Info

---

Address : 302, Taman Derga Jaya, Jln Datuk Kumbar, 05300 Alor Setar, Kedah.  
Mobile No : +6017-5238032  
Email Address: jiun\_94@live.com

### C. Education Qualifications

---

#### I. Secondary School

Institution : Sekolah Menengah Sin Min (Persendirian)  
Duration : 2007-2011  
Qualification : Sijil Pelajaran Malaysia (SPM) equivalent to O-level

#### II. Pre-University

Institution : Sekolah Menengah Sin Min (Persendirian)  
Duration : 2012-2013  
Qualification : Sijil Tinggi Pelajaran Malaysia (STPM) equivalent to A-level

#### III. Bachelor Degree

Institution : University Tunku Abdul Rahman  
Course : Bachelor of Business Administration (Honours)  
Entrepreneurship  
Duration : 2014-2017  
CGPA : 3.333

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### **D. Extra Co-curriculars Activities**

---

- 2007-2011     Treasurer of St. John Ambulance (2010-2011)  
 Treasurer of Scout (2010-2011)  
 Participated in Australian Mathematics Competition (2009)  
 Participated in Australian Mathematics Competition (2010)
- 2012-2013     Chairman of Library Services Group (2012-2013)  
 Secretary of Counseling Society (2012-2013)  
 Treasurer of Leo Club (2012-2013)  
 Secretary of Ping Pong Society (2012-2013)
- 2015-2017     Member of Young Entrepreneurs Society (2015-2017)  
 Complete talk on Industrial Advisor Talks (2016)  
 Complete talk on Power! Managing Your Debts Effectively (2016)

### **E. Past Working Experiences**

---

- 2012             Tutor (6 months)  
*Workplace: Talent Education Centre*
- 2014             Clerk (9 months)  
*Workplace: Lye Electronic Service Centre*
- 2016             Life Planning Advisor (3 months Industrial Training)  
*Workplace: i-Gen XYZ*

### **F. Personal Strength**

---

- Leadership, motivate, hardworking and responsible
- Able to work in team efficiently
- Adaptability and willing to learn something new

### **G. Languages Proficiency (1= Worst, 5= Best)**

---

Spoken            : Mandarin (5), English (4), Bahasa Malaysia (4)  
 Writing            : Mandarin (5), English (4), Bahasa Malaysia (4)

### **H. Reference**

---

Name              : Ms. Sai Mei Ling  
 Company          : University Tunku Abdul Rahman  
 Position          : Lecturer  
 Contact            : 014-9022094  
 Email              : saiml@utar.edu.my

---

## Resume of Operation Manager

### A. Personal Particulars

---

Name : Wong Fong Theng  
Age : 22  
Date : 5/7/1995  
Nationality : Malaysian  
Gender : Female  
Race : Chinese  
Religion : Buddhist  
Marital Status : Single



### B. Contact Info

---

Address : 51, Kampung Baru, Kg Raja, 39010, Cameron Highlands,  
Pahang.  
Mobile No : +6019-4246093  
Email Address: wongfongtheng@gmai.com

### C. Education Qualifications

---

#### I. Secondary School

Institution : SMK Kampung Raja  
Duration : 2008-2012  
Qualification : Sijil Pelajaran Malaysia (SPM) equivalent to O-level

#### II. Pre-University

Institution : Asian Institute of Medical, Science & Technology  
(AIMST)  
Duration : 2013-2014  
Qualification : Foundation in Business

#### III. Bachelor Degree

Institution : University Tunku Abdul Rahman  
Course : Bachelor of Business Administration (Honours)  
Entrepreneurship  
Duration : 2015-2017  
CGPA : 2.699

---

#### **D. Extra Co-curriculars Activities**

---

- 2008-2012     Secretary of Basketball Club (2010)  
 Secretary of Ping Pong Club (2011-2012)  
 President of Kelab Rukun Negara (2012)  
 Participated in Malaysian National Chemistry Quiz 2012 (K3M)  
 (2011)
- 2015-2017     Member of Entrepreneurs Society (2015-2017)  
 Sponsorship Manager of Healthy Lifestyle Campaign (2016)  
 Assistant Certificate cum Souvenir Manager of Blood Donation  
 Campaign (2016)  
 Complete workshop on International Cultural (2016)

#### **E. Past Working Experiences**

---

- 2013             Sales Representative (6 months)  
*Workplace: Brands Outlet*
- 2014             Sales Representative (3 months)  
*Workplace: Sushi Mentai*

#### **F. Personal Strength**

---

- Enthusiastic, hardworking and responsible
- Able to work in team efficiently
- Good in time management
- Good interpersonal and communication skills
- Eagerness to learn something new

#### **G. Languages Proficiency (1= Worst, 5= Best)**

---

- Spoken            : Mandarin (4), English (5), Bahasa Malaysia (4), Cantonese (3)  
 Writing            : Mandarin (4), English (5), Bahasa Malaysia (4)

#### **H. Reference**

---

- Name              : Ms. Sai Mei Ling  
 Company          : University Tunku Abdul Rahman  
 Position          : Lecturer  
 Contact            : 014-9022094  
 Email              : saiml@utar.edu.my

Appendix U32: Online News



(Malaysian Ministry of Education: Have try to launch the e-book before but the cost is too high to implement.)