

Final Project Milestone 1

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International Market

Amid the COVID-19 pandemic, there has been a revival in cycling habits given the safety reasons to commute as well as to maintain ones fitness regimens. In 2020, the market size for bicycle worldwide accounted at USD 54.44 billion and, during 2021 to 2027, projected to increase at a Compound Annual Growth Rate (CAGR) of 4.8% (NASDAQ OMX, 2021). This CAGR percentage was equivalent with the global market size for motor vehicles which projected to reach USD 20,321 million in 2026 (Report Linker, 2020).

Bicycle is widely used around the world for various activities: from leisure, road trip, sport, and some more, which classifies the market segmentation for themselves. Despite there is no exact data of how many bicycles have been produced so far, yet it is estimated that there are currently around 1 billion bikes worldwide, in which there are 47,670 bicycles are being sold every day (Balton, 2021). This is a fantastic number. However, there is seemingly an increase of demand to produce bicycles to be more environmentally friendly following the global shift of consumer preferences for green products. The driving force comes from the dilemmatic reality that, in many cases, the bike's main components "steel" ends up as a source of pollutants and harms the environment. It is recorded that there are roughly 1.8 trillion tons of steel being produced annually in which for every three minutes that amount is adequate to build an Eifel Tower (World Steel Association, 2019). Obviously, this is a pressing issue and businesses need to ethically consider the ability to produce bike's components to be more eco-friendly yet not disrupt the production flow.

Bamboo Frames, LLC., or also known as BF, exists to accommodate such need for biodegradable bicycle frames, well-designed, durable, yet with competitive price which will suit various segments. Using giant bamboos as the replacement of steel-made frames in a common bike, the company will operate in partnership with local suppliers who are strictly

guided to ethically sourcing bamboos and maintaining the natural ecosystem of bamboo forests. By employing a retailer strategy, Bamboo Frames (BF) will work closely to build a long-term contract with 300 thousand local craftsmen and vendors across Indonesia, or what the company called as “community suppliers”, to produce the ready-to-assemble bamboo frames. BF will continuously communicate and train them on meeting its standardized “diamond-shape frame”, while the company will as well maximize the supply chain structure and management inside the warehouse. Given the frame component is assembled outside, BF manufacturing space plus offices and designated showroom will be placed on one huge building adopted the industrial warehouse models. The warehouse will be located in East Jakarta, Indonesia close to the trans provincial highway that connects Java Island. Meanwhile, Bamboo Frames headquarters, dedicated to serving Asia - Oceania markets, will be situated in Central Jakarta.

Considering the growing economy and demographical landscape in Asia, Bamboo Frames aims to reach more Asian segments. The strategy is to enter the marketplaces (E-Commerce) which have been growing rapidly in the emerging market countries, yet with much lower cost compared to setting up physical bike stores. Simultaneously, BF will also set up an auxiliary either in Taiwan or Japan which are best known as the largest high-end brake and gear markets. Here in Taiwan and Japan, Bamboo Frames plans to launch its hybrid bikes, namely the electric bike with its bamboo frame, aka Bamboo E-bike. As the company grows, BF will seek an expansion to the European and American markets. In America, BF’s main target will be the US, Brazil, Canada, and Chile. BF will also build an auxiliary in Chile since the country is a source of *Chusquea gigantea* (giant) bamboo and, therefore, has a potential to establish a partnership with local sources, as well as the existing bicycle companies, for instance: by offering and supplying the ready-to-assemble bamboo frames needs. Lastly, the expansion to India will be a launch point to South Asia and the MENA

markets, while BF will also look for opportunities to settle on Africa's markets and connect with their local suppliers.

Governing Bodies

Running a business in Indonesia requires adhering to the laws and national standardization. Business operations and products made in, or imported to, Indonesia shall meet the Indonesian National Standard (SNI) conducted by the National Standardization Agency of Indonesia (Adipurnomo, 2020). To obtain the SNI license, Bamboo Frames products will be examined to meet the safety benchmark such as: not include sharp ends/bumps, the frame and fork pass the fatigue and vibrating test, equipped with front and rear brake, include manual in Bahasa Indonesia, and etcetera. There is also a minimum standard for bicycle factories, namely:

- Bicycle manufacturing/assembly industry permit from an authorized agency
- Machinery and/or equipment for the manufacture of frames and headlights
- Rust and oil cleaning equipment and anti-rust coatings
- Machinery and/or equipment for painting including ovens

Bicycles with an approved SNI are considered important not only to ensure the product quality, but also to provide satisfaction and ensure the security to customers. Hence, it will also give an assurance to company regarding the acceptance of markets in Indonesia and beyond.

Moreover, the regulation issued by the Ministry of Trade No. 68 year 2020 regarding to the shipping and/or import policy for footwear, electronic, bicycle and tricycle is another essential law to comply with, especially the data verification and technical tracking of those products which require the following minimum information:

- Loading port (location of origin)
- Type of goods information
- A mandatory Serial Number of Products SNI Certificate
- Item registration number
- Notification Letter or Approval Permission Letter
- Certificate of Analysis
- Manual and guarantee letter in Bahasa Indonesia
- Shipping time
- Port destinations

Bamboo Frames will act in compliance with both SNI and the Indonesian trade regulations in order to meet the standard in the country. As the company obeys the laws and meets the requirement, it will as well smooth the supply chain flow of Bamboo Frames, hence, supporting the mass production of the products. In this case, the company will immediately settle a flat Corporate Income Tax (CIT) rate of 20% to net taxable income and VAT rate of 10% for domestic delivery. Meanwhile, on the export of Taxable Goods and Services is subject to a special VAT rate of 0% (KEMENDAG, 2020).

In addition, adhering to the law of using bamboo as a commodity or industry production is also fundamental to understand both for BF and its community suppliers, most notably when BF opts to be self-sustained with bamboo resources. For example, there is an imposition of the Reforestation Fund around USD 12.00 to USD 14.50 per m³ (depending on the cultivation areas). It is, therefore, in the future, Bamboo Frames will run an analysis on bamboo dues permit as well as Reforestation Fund, and later compare the sums based on the provincial level.

For expansion legalities in other countries, Chile will be firstly prioritized after setting up the subsidiary affairs in Japan or Taiwan auxiliaries. While Japan subsidiary is subject to 20.42% withholding tax, we will compare thoroughly on Taiwan subsidiary laws in which require a withholding tax of 21%. Chile does impose a higher tax of 35% compared to its Asian subsidiary counterparts.

Challenges and Opportunities

Bicycle industry is huge and demand for the products is also remarkably high. Because of these reasons managing the supply chain of bicycle products is also complex and, at the same time, the competition in the market is intense.

The biggest challenges for bicycle makers are often associated with the constraints on the availability of stocks in the warehouse. While the frame made of bamboo and tyre productions are in solid support from Indonesian vendors, BF research team found that the factory restraints are mostly caused by the lack of supplies on components such as chains, gears, and brakes which are mostly imported from giant supplier in Japan or Taiwan. This issue is especially increasing during the pandemic and resulted in the temporarily closed of many factories in the highly impacted nations (Forbes, 2021). Researching and establishing a partnership both with local component makers and those from the fellow Asian emerging countries are the step that BF preparing for. Thus, instead of relying solely on Japanese and Taiwanese suppliers; BF will empower the domestic vendors by first encouraging them to enhance their item qualities, obtaining the SNI license (providing that they have not gotten it yet), and possibly supporting them for mass production. BF will as well take the advantage of ASEAN free trade area to integrate with Vietnamese, Cambodia, or The Filipino vendors and enjoy the 0% import tariff rate from those countries.

Some other issues that BF may encounter are related to market competition and fluctuations in sales. Since there have been many established bike companies and retailers on the global market, Bamboo Frames aims to develop a systematical marketing strategy and expects to employ omnichannel sales, featuring innovative deliveries as to develop long-term relationships with the end customers. BF should also be aware of seasons where sales could experience a peak, and vice versa. As for the case in Indonesia and several Asian countries, there is a seasonal holiday homecoming (*mudik*) in cities especially during the end of Ramadan as well as on Christmas and New Year where most students, workers, migrants, and families take a trip to their hometown for weeks. Being aware of this situation is essential as slow sales may occur in that post period. Nonetheless, Bamboo Frames targets all its stores to be set up near prime areas such as public parks, tourism and leisure hotspots, as well as close to educational institutions. Hence, even on long holidays BF still has a chance to amplify its branding and convert sales by, for example, employing on-the-spot marketing such as opening stands where public have a chance to experience the bamboo bike. This strategy will be also used on getting “the biodegradable and eco-friendly” message across. A similar strategy will be utilized on the season where sales can potentially be bolstered, such as when the new semester on schools and universities start. In this momentum, BF will seek collaboration to join school/university events and introduce its products. Additionally, offering back-to-school discounts or vouchers are the approach that BF will deploy.

For the international market penetration, the challenges obviously are more complex which can include legalization processes, financial constraints, market competition, and meeting customer preferences and habits. BF will plan the market expansion systematically and employ specialists to assist the development steps along the way. The bamboo bike retailer brand is also the core focus that BF aims to amplify. Hence, the company will not solely focus on selling units, but also provide in stores or display rooms some spare parts,

ready-to-assemble bamboo frames, and accessories (including bamboo tumblers, eco-friendly tote bag, sport outfits).

Sustainability

Sustainability is one of the fundamental reasons for Bamboo Frames' existence. At glance, supporting environmentally friendly products and healthy lifestyles are perhaps the most apparent sustainability values that the public can acknowledge from the company. However, BF's sustainability is to engage in much wider dimensions. The company's sustainable vision is to revitalize communities and be socio-environmentally responsible. Through its principles, BF is committed to conducting business with full integrity, developing human capital, preventing children from labor exploitation, and protecting environment.

The law pertaining to bamboo forest protection is regulated by the Ministry of the Republic of Indonesia which for business purposes are emphasized on the optimization of environmental and socioeconomic benefits. While the US Lacey Act applies in the United States, the European Union Timber Regulation (EUTR) is ruled the exploitation of resources from forests (IWAY Council, 2019). It is, therefore, BF reserves the right to audit the process of resourcing the bamboo products that sell or being provided by suppliers. For example, BF will carefully examine the origin of the bamboo products, their legal status, and the current conditions on their ecosystems. Ethical sourcing is the ground principle to integrity.

Community sources are also vital for the BF supply chain. BF plans to train the villagers to learn the ground techniques of assembling the diamond-shaped frames and be a part of BF's long-term quality suppliers. BF will support the community empowerment through community training and familiarizing the standard applies in BF including its harvesting standard procedures, packaging, and establishing connection with BF partner

collectors, which are also under BF supervision and guidelines. The empowerment will focus on people like farmers, craftsmen, and the youths.

Bamboo Frames CSR program will also revolve around children protection.

According to UNICEF (2020), the world is currently hosting around 160 million underage individuals who are subject to child labor. This is a massive scale of human rights violation. As a part of the empowerment program, BF will educate community suppliers regarding the laws that govern the underage labor protection and will not tolerate its practices at any reason, especially if such cases conducted by suppliers. BF will grant a scholarship to children from low-income families to ensure the children obtain their fundamental rights and as BF commitment to keep the development sustainability.

Lastly, BF's global program also includes conserving the bamboo forests and their ecosystems. Farmers are encouraged to practice the silvicultural principles on bamboo flora, since, based on FAO, this method has been provenly successful in increasing the number of bamboo's culms, height, and diameter (Fernandes et al., 2003). Moreover, the silvicultural system also helps to preserve water circulation in the plant ecosystem and prevents soil erosion.

Supply Chain Management

The key to Bamboo Frames supply chain management is governed by the combination of relationship management, technology implementation, and skilled talents. BF's vision is to grow as a leading bamboo bike retailer; thus, a high-volume supply chain is expected. In order to obtain the best prices and quality, BF dedicated teams aim to establish a long-term relationship with suppliers. BF will utilize ICT and social media communications to stay connected with vendors and suppliers. BF will also regularly examine the quality of bamboo materials as well as supervise the employee conditions. This business principle will

ensure that bamboo bicycles are of their highest quality, yet at affordable prices. The consistent processes and values governed by the company will provide opportunities to BF “eco-labels” for marketing purposes.

For inventory, BF uses the minimum and maximum unit proprietary system and RFID technology. Every day or two, the inventory will be restocked based on the product availability in the store sections. Hence, the supply processes will minimize the over or out of stock issues. Simultaneously, the web-based system will also be employed to help customers understand the stock availability of their desired products. For in-store shopping, customers could experience the demo of the products in the dedicated area. Like information on BF website, customers can learn more about their bamboo bike sources, the healthy and environmental impact of cycling, and the tips for taking care of their bikes through the QR code on the bamboo frames of the bicycle. BF will also divert the customer on a link that explains about the chance of customers to participate in bamboo planting programs and, hence, save the earth.

Shipping the bike products will integrate with electronic logistics and the RFID system. The partner stores and vendors are also encouraged to apply the same principle; thus, tracking will be in a real-time update. Bamboo Frames and its subsidiaries are simultaneously operating within the same standardization and principles. This operation structure is expected to be cost-effective.

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