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Seng Loong Kok \* and Supaprawat Siripipatthanakul

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Article

## The Challenges and Opportunities of Geely: A Marketing Case Study

Seng Loong Kok 1,\* and Supaprawat Siripipatthanakul 2

- Manipal GlobalNxt University, Malaysia; SK16943@campus.globalnxt.edu.my; ORCID ID: orcid.org/0009-0006-0997-7960
- Manipal GlobalNxt University, Malaysia; supaprawat.siripipatthanakul@campus.globalnxt.edu.my; ORCID ID: orcid.org/0000-0001-6671-2682
- \* Correspondence: sk16943@campus.globalnxt.edu.my

Abstract: With the increased liberation of trade and fierce competition in the automotive industry, Proton needs to embark on a strategic reform to survive and remain relevant in the challenging market. This case study aims to explain the effectiveness of the Post Geely acquisition's ten years master plan to enhance Proton's self-reliance and global competitiveness. This case suggests that while the company's ten-year Master Plan is holistic and shows positive results in the early years, there is a need for a new business strategy, given the challenges imposed by climate change's impact on the automotive industry moving forward. The potentials of the Electric Vehicles (EVs) market and the Internet of Things (IoT) to develop the necessary long-term competitive advantage. A market strategy integrating the 4Ps and 4Cs framework suggests a two-dimensional convergence of the market mix, incorporating the organization's market strategy with a more consumer expectations-centric and user experience. Strategic integration of Geely's technological assets in developing Proton's technical know-how can address Proton's challenges and opportunities ahead.

Keywords: automotive; electric vehicle; market strategy; competitive advantage; marketing strategy

Geographical setting: Malaysia, South East Asia

#### INTRODUCTION

Over its 40 years, Proton has experienced successes, challenges, and failures. The company went from market share leader in the 1980s and 1990s to severe financial losses with declining market shares since the mid-2000s. This case study explains the effectiveness of the Post Geely acquisition's ten-year master plan to enhance Proton's self-reliance and global competitiveness. This case study suggests the need to review the business strategy given the challenges of climate change's impact on the automotive industry. To develop the necessary long-term competitive advantage, the company must evaluate the potential impact of the Electric Vehicles (EVs) market and the Internet of Things (IoT).

Proton is the first Malaysian national car company started in 1983. Over its 36 years, the company has experienced successes, challenges, and failures. The company went from market share leader in the 1980s and 1990s to severe financial losses with declining market shares since the mid-2000s. It also noted a change of ownership via the acquisition by DRB-HICOM in 2012 with an attempt to improve its performance with little success. In 2017, DRB-HICOM disposed of 49.9% of the Proton shareholding to China's Zhejiang Geely Holding Group Co., Ltd. It marked the first foreign ownership since the joint venture with Mitsubishi Motor Corporation, which exited the experience in the 2000s.

Several studies have examined the reasons for Proton's failure. The general studies suggest that the cost efficiency of Proton is one of the critical reasons that adversely affected its financial performance (Salang, 2018) (Abdullah, Lall, & Tatsuo, 2008). Other studies suggest its failure to penetrate export markets, leading to a lack of economies of scale, technological capabilities and limitations to meet international standards, a lack of skilled workforce and weak global marketing

2

capabilities (Wad & Govindaraju, 2011). Some of these studies highlighted that Proton has entered into various technological cooperation with some of the international players such as Mitsubishi, Honda, Suzuki, Citroen and Renault to address its technological shortcoming in the past. Nevertheless, it notes that these technical agreements seem more beneficial to these partners as an entry to the host market and limit their ability to market them overseas (Rasiah. 2003). It also argued that most of these technological collaborations have restrictions over the use of the technology and, on most occasions, yielded less than satisfactory market success.

Proton must embark on a strategy reform to survive and remain relevant in the competitive marketplace. It is due to the increasing trade liberalization and intense competition within the automotive industry (Ahmed & Humphreys, 2008).

#### Background of the Company: The Proton Overview

Several literature and case studies on Proton have been published since the company's inception in 1983. Proton's aspiration as Malaysia's first national car producer as well as the first of its kind in the ASEAN region, marked a critical milestone in Malaysia's industrial history with a grand vision to emerge as a global player, which is in line with the Vision 2020 agenda (Figure 1). In general, the company's history can be illustrated along five eras concerning a 4Ps framework (Figure 2). As one of the iconic projects in Malaysia's industrialization history, many resources have been invested in the project since the creation of Proton, ranging from imposing new economic/ industrial policies to substantial financial investments in both public and private sectors (Jayasankaran & Jomo,1993). Despite significant resources commitment to Proton over the last four decades, the performance generally can be summarised as a highly policy-protected company (Wad & Govindaraju, 2011), (Fujita, 1998), (Kuchiki, 2007), (Tan, 2007), lack of technological know-how and product design innovation (Noor, & Lingam, 2014), (Mooi, & Khean, 2007) and lack of operational competitiveness/efficiency (Jomo, Rasiah, Alavi, & Gopal, 2005), (Khalifah & Abdul Talib, 2008). In general, Proton's marketing mix strategy mainly remained more or less the same since its inception 40 years ago.

#### **CORPORATE MISSION**

- To become a successful Malaysian automotive manufacturer globally by being customer oriented and producing competitively priced and innovative products.
- Guided by the 5 core commitments

#### TO THE CUSTOMERS

We strive to deliver total customer satisfaction through the provision of quality automobiles and related products and services more efficiently and
effectively than our competitors.

#### TO THE SHAREHOLDERS

We strive to generate good earnings with steady growth through the efficient management of resources

#### TO THE EMPLOYEES

• We are committed to promote a conducive working environment while focusing on human resource development and long-term employment.

#### TO THE BUSINESS ASSOCIATES

We strive to develop and maintain mutually-beneficial, value-added relationship of the highest degree.

#### TO THE NATION

We shall be a responsible corporate citizen and shall be the impetus towards the realization of Vision 2020

Figure 1. Proton's Corporate Mission Statement. Source: Proton Website.

	1980s	1990s	2000s	2010s (DRB-HICOM Era)	2010s (Geely Era)	
Product	Passenger Vehicle Segment – Primarily on Compact Sedan Market Commercial Vehicle Segment – Taxi Vehicles, Government Official Vehicles	Passenger Vehicle Segment – Compact Sedan, Compact Sport, Compact, Executive Sedan Commercial Vehicle Segment – Taxi Vehicles, Government Official Vehicles	Passenger Vehicle Segment – Compact Sedan, Compact Sport, Compact Pickup, Executive Sedan, Compact MPV Commercial Vehicle Segment – Taxi Vehicles, Government Official Vehicles	Passenger Vehicle Segment — Compact Sedan, Compact Sport, Compact Pickup, Executive Sedan, Compact MPV Commercial Vehicle Segment — Taxi Vehicles, Government Official Vehicles	Passenger Vehicle Segment – Compact Sedan, Compact Sport, Compact Pickup, Executive Sedan, Compact MPV, Compact SUV Commercial Vehicle Segment – Taxi Vehicles, Government Official Vehicles	
Price	Competitive Pricing Strategy : Value for Money, Price Leadership against its competitors; Limited variants	Competitive Pricing Strategy: Value for Money, Price Leadership against its competitors; More variants, Manual vs Automatic Transmission	Competitive Pricing Strategy: Value for Money, Price Leadership against its competitors; Variant Pricing, Premium Pricing on Special Edition	Competitive Pricing Strategy: Value for Money, Price Leadership against its competitors; Variant Pricing, Premium Pricing on Special Edition	Competitive Pricing Strategy : Value for Money, Price Leadership against its competitors; Variant Pricing, Premium Pricing on Special Edition, Extended Warranty and Maintenance Package	
Place	3 tiers sales channels: 1) Showroom 2) 3S center 3) 4S center PROTON & EON Sales Network Regional Spare-parts warehouse 3 <sup>rd</sup> party spare-parts dealers network Authorized Service Partners	3 tiers sales channels: 1) Showroom 2) 3S center 3) 4S center PROTON & EON Sales Network Regional Spare-parts warehouse 3 <sup>rd</sup> party spare-parts dealers network Authorized Service Partners	3 tiers sales channels: 1) Showroom 2) 3S center 3) 4S center PROTON & EON Sales Network Regional Spare-parts warehouse 3 <sup>rg</sup> party spare-parts dealers network Authorized Service Partners SMS Notification	3 tiers sales channels : 1) Showroom 2) 3S center 3) 4S center Regional Spare-parts warehouse 3rd party spare-parts dealers network Authorized Service Partners SMS Notification Online Service Booking	3 tiers sales channels: 1) Showroom 2) 35 center 3) 4S center (more towards 35/45) Regional Spare-parts warehouse 3 and party spare-parts dealers network Authorized Service Partners SMS Notification Online Service Booking	
Promotion	Trained Sales Representatives/ Advisers for product introduction, Advertisement on various medias, event sponsorship for brand awareness, product launching event, seasonal promotion campaign	Trained Sales Representatives/ Advisers for product introduction, Advertisement on various medias, event sponsorship for brand awareness, tied up with financial institutions, product launching event, Internet website, se	Trained Sales Representatives/ Advisers for product introduction, Advertisement on various medias, event sponsorship for brand awareness, tied up with financial institutions, product launching event, Internet website, seasonal promotion campaign, brand loyalty program	Trained Sales Representatives/ Advisers for product introduction, Advertisement on various medias, event sponsorship for brand awareness, ited up with financial institutions, product launching event, Internet website & so	Trained Sales Representatives/ Advisers for product introduction, Advertisement on various medias, event sponsorship for brand awareness, itsel up with financial institutions, product launching event, Internet website & social medias (interactive mode), seasonal promotion campaign, brand loyalty program, trade-in discount program	

Figure 2. The Eras of Proton's History: From A 4Ps Perspective. Source: Author generated (2023).

Since the aftermath of the 1997/98 Asian Financial Crisis, the 21st century has continued to pose a series of challenges to Proton. By the mid-2010s, Proton's performance continues to degrade both financially and in terms of market shares due to a lack of competitiveness in domestic and international markets, despite several measures and attempts by both public and private initiatives taken to restructure the company over the decade. In the fiscal year 2016/17, Proton posted a net loss of RM 975 million, while its market share slipped to 14% in 2016 from 20% in 2014. Turnaround efforts were hampered by weak demand and stiff industry competition.

#### THE GEELY ERA

In 2016, the Malaysian Government intervened by extending a soft loan amount of RM1.5 Billion to Proton, with the mandatory condition for the company to identify a global strategic partner within a year. In 2017, DRB-HICOM and Zhejiang Geely Automobile Holdings agreed with the latter, acquiring a 49.9% stake in Proton. As a result of the acquisition, Geely injected RM 170.3 million in cash and helped Proton develop its first-ever sports utility vehicle based on its Boyue model with immediate access to a platform for a new car model with minimum lead time from R&D to production and launch. As part of the acquisition, Proton secured the intellectual properties to the design, development, production, sale, marketing & distribution of the Geely Boyue, Geely

Binyue and Geely Jiaji for Brunei, Indonesia, Malaysia, Singapore and Thailand. In addition to that, Proton also disposed of its UK subsidiary, namely Lotus, for a consideration of GBP 100 Million to Geely and Etika Automotive. In the same year, Dr Li Chunrong, a leading automotive specialist, was appointed as the Chief Executive Officer of Proton.

#### THE IOYEARS PLAN: TURNAROUND & MARKET LEADERSHIP

- Turning the company around "as soon as practicable"
- Retaking local market leadership with 30% market share and becoming one of the top-three carmakers in South-East Asia with 10% of the ASEAN market share with 25%-30% of its annual sales driven by exports.
- Proton's focus will be directed to productivity, quality and cost competitiveness, as well as enhancing brand value
  - To cut cost across the board by 30%
  - To improve car quality using a stringent system aligned to the international standard of Volvo cars
  - To increase annual production gradually to 400,000 cars by 2027 from under 100,000 units in 2017.
  - Infusion of technologies and new energy vehicles.
  - In four years, 80% of Proton's components and services will be sourced locally subject to strong emphasis on quality, cost and reliability.
  - In manufacturing strategy, production expansion will be moved to Tanjung Malim rather than Shah Alam for cost and space considerations.
  - To upgrade the capability of its talent and staff.
  - As for its marketing strategy, Proton will upgrade and increase its sales centres with 3S/4S capabilities.

**Figure 3. The Proton's 10 Years Plan Overview.** Source: Malaysia Investment Development Authority (MIDA; 2018).

Since the entry of Geely, Proton revealed the company's ten years masterplan (Exhibit 3.0) to regain the number 1 spot as the largest market share in Malaysia and become the third biggest car manufacturer in ASEAN in terms of sales volume. The core focus of the Plan is to address the long due issues within the company, i.e. productivity and efficiency.

As a result, Proton has experienced a series of reforms, from streamlining the supply chain with an aggressive cost reduction strategy, launching the new Sports utility vehicle (SUV) segment model X70 (Figure 4), improving and updating the Proton Person and Iriz models, to upgrading of Sales & Service Centers to 3S/4S nationwide. A new service and maintenance package was introduced to enhance the customer experience.

- Priced at RM99,800 RM123,800 range depends on specifications, the model is among the most expensive models Proton currently offers
- A Complete Build-Up (CBU) model, the model is fully imported with a plan to local assemble in 2020. Potential further price reduction expected
- With an exception to Proton Perdana, the model is also the biggest powertrain with a 1,799cc turbocharged.

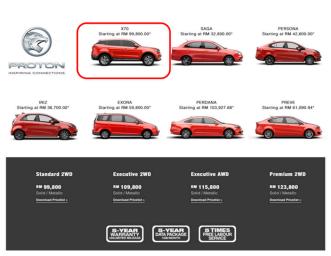


Figure 4. The Proton's X70 SUV Model. Source: Proton Website, December (2019).

These aggressive measures resulted in Proton's performance turning profitable for the first time in nine years with the success of the X70 model launch. They regained the second position as the nation's market share, with a 16.7% share in 2019, above Honda and Toyota. Proton saved RM250 million in costs in 2018, has also cut its warehouses to four from sixteen and sold 1,000 of its 1,500 company cars.

In 2018, Proton announced the launch of the Proton first SUV which is based on Geely Boyue, with touches of local design elements introduced for the Malaysian market. The first batch of the locally named Proton X70 will be imported from China, with localization plans in conjunction with the Tanjong Malim plant expansion plan.

The 2nd model of the product lineup, the X50 compact SUV Model, was targeted to be released in 2020. Based on the latest development, the company is expected to break even in 2019 and turn profitable by 2020.

#### The Proton 2.0: The Post GEELY (10 Years Plan) Analysis - The Success Stories So Far

When reviewing the progress of the post-Geely era, it is undeniable that the 10 Years Plan measures have shown commendable results after three years into implementation. Sales have exceeded the 100,000 units mark for the first time since 2015 (Exhibit 5.0). However, suppose these accomplishments are measured against its 2012 position. In that case, there is still a big gap and premature to conclude the effectiveness of the 10 Years Plan for Proton's survival in the long run or, worse, a mere "temporary fix" than a strategic plan.

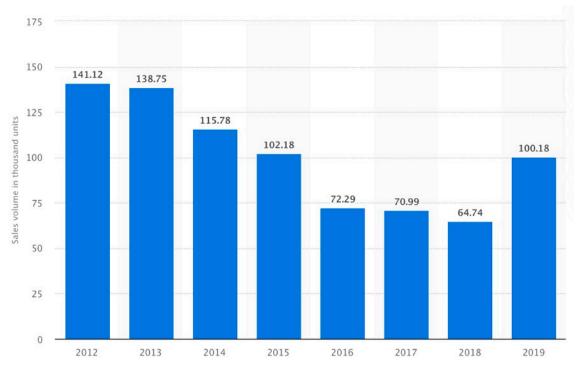


Figure 5. Proton Sales Performance (Unit) 2012-2019. Source: Statista (2020).

Since the emergence of Geely as Proton's strategic shareholder, it is undeniable that Proton's dynamics have changed so, as the business environment.

Figure 6. summarises Proton's SWOT position, considering the company's internal and external conditions post-Geely era. In summary, it is noted that while the Proton 10-year plan improved the company's market share and profitability, the SWOT analysis also revealed several important aspects that the ten years plan needs to enhance to address the opportunities and threats ahead.

#### **PROTON SWOT OVERVIEW: POST GEELY ERA**

#### **STRENGTHS**

- Successful cost reduction plan
- Access to GEELY-VOLVO Intellectual Properties
- Improved Domestic Market Share Position
- Local Production Capability & Room for Expansion
- Favourable National Automotive Policy (NAP) Protection against foreign competitions
- Strong Management Leadership to drive the organisation change plan

#### WEAKNESSES

- Long term Poor Brand Perception Reliability Issue and Poor Service Experience
- Lack of Technical Know-how to develop Electrical Vehicle (EV), Automotive IOT & compliance to stringent EURO 6 standards & beyond
- Financial constraint to support the investment requirement and research and development activities

#### **OPPORTUNITES**

- Removal of Fuel Subsidies Policy the Consumer Trend towards fuel-efficient car segment
- The Growing Hybrid/EVs Market Segment the future of automotive
- Strategic Platform to expand to ASEAN region successful SUV segment
- IoT-5G Connectivity Cellular V2X (C-V2X) the Disruptive factor as Game Changer

#### **THREATS**

- Proton Market Follower/Adapter Approach fierce competition from renowned automakers – Hybrid/EV Market
- Emergence of 3<sup>rd</sup> National Car Company Evs
- Reform of NAP intensified price competitions
- Stringent Emission Standard CO2 emission compliance
- National Transport Policy Public Transport Centric

Figure 6. Proton's SWOT Analysis. Source: Author generated (2023).

#### LITERATURE REVIEW

#### ASEAN MARKET EXPANSION: THE NEEDED CRITICAL MASS FOR PROTON

Firms' primary objective is to maximize their shareholder return. The firm develops products and expands markets to increase its revenue and profitability to achieve this objective. The cost leadership strategy aims to establish a competitive advantage by enhancing its operational efficiency with economies of scale. In the case of Proton, a regional market expansion will potentially create the critical mass needed to lower overall costs.

The Association of Southeast Asian Nations (ASEAN) region represents a market with a combined GDP over US\$ 2.4 trillion, which collectively put the region as the 6th largest economy globally. With a population of approximately 630 million, ASEAN is the world's 3rd most populous market, behind only China and India. In 2015, the ASEAN Economic Community (AEC) WAS established to foster regional economic integration for a more liberated market, with intra-regional tariffs virtually eliminated and formal restrictions gradually removed, reducing cross-border trade costs. According to IHS Markit consultancy, Toyota leads ASEAN car sales with a 30% market share, Honda with 13% and Mitsubishi with 10%. Proton is in 11th place with about 3%, mainly from Malaysia.

The revival of Proton brought mutual gains to both Proton and Geely, which sees performance turnaround for Proton and Geely now gaining a solid footprint in the SouthEast Asia market, both brand and operational advantage. Given the strategic local of Malaysia in the centre of the ASEAN region, it provides Geely with the needed geographical advantage to expand across Southeast Asia and beyond.

In 2019, Geely revealed its Plan to expand its market presence via Proton's brand across the ASEAN region. It initially focused on Thailand, Indonesia, Singapore and Brunei, given that these right-hand drive markets require fewer car modifications which present an ease of market entry. At the same time, Proton also aims to drive into the Middle East and increase sales to Egypt. Proton indicates its Plan to grow 40% of its sales from foreign markets by 2027, identifying Thailand and Indonesia as the key markets and launching a new model each year.

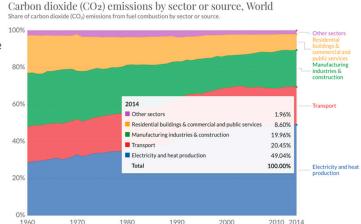
#### **CLIMATE CHANGE - OPPORTUNITY OR THREAT?**

Since the turn of the century, the climate change impact (Exhibit 7.0) has put significant pressure on the world business environment and changed how businesses are conducted. Recognizing the need for actions to combat climate change and to create a sustainable future, the nations of the world reached an accord by endorsing the Paris Agreement 2016 of the United Nations Framework Convention on Climate Change – the 2 degrees Celsius & 20/20/20 policy, which to:

- Keep the increase in global average temperature to below two °C above pre-industrial levels,
- 20% reduction of carbon dioxide (CO2) emissions,
- 20% increase in renewable energy's market share,
- 20% increase in energy efficiency.

The impact of the Paris Agreement on the automotive industry is significant. Regulatory and industrial practice reforms are implemented at an unprecedented scale and speed.

- Greenhouse Effect (GHE) is one of the main factors to Global Warning
- Carbon-Dioxide (CO<sub>2</sub>) emission is one of the main contributors of Human Induced Global Warming
- Transportation since 1960s account for one fifth (1/5th) of the total CO<sub>2</sub> emission.
- Recognizing its impact to the global climate change, increased governmental regulations and policies to reduce CO<sub>2</sub> emission and innovative technologies to automotive industry.



**Figure 7. Climate Change Impact on the Automotive Industry.** Source: United Nations Food and Agriculture Organization (FAO; 2014).

The European Union will cut carbon dioxide emissions by new vehicles by 30% between 2021 and 2030. In the early trend, diesel engine vehicles were favoured due to their better fuel efficiency than petrol engines with a lower average CO2 emission. While lower CO2 emission, it was discovered with issues of toxic emissions, namely nitrogen oxides ( $NO_x$ ), poisonous nitrogen dioxide ( $NO_z$ ), greenhouse gas nitrous oxide ( $NO_z$ ) and nitric oxide ( $NO_z$ ). As a result of raising the Euro Emission Standard regulation, Efficient Fuel Engines of smaller capacity with Turbo technology were becoming the solution for lower emissions and push toward electrification of vehicles.

Hybrid and Electric vehicles (EVs) were introduced gradually to mainstream product offerings by automakers such as BMW, Toyota, Volvo, Porsche and others (Appendix 1.0). Porsche has set to electrify over half its product offering by 2025, while Volkswagen is to reduce the average emissions of its new vehicles by 30% by 2025, & to be carbon neutral by 2050.

#### THE Electric Vehicles Initiative (EVI)

In 2009, the Clean Energy Ministerial (CEM) established the Electric Vehicles Initiative (EVI), a multi-governmental policy forum to accelerate the deployment of electric vehicles worldwide. The EVI improves the understanding of the policy challenges of electric mobility and serves as a platform for knowledge-sharing, particularly on the critical transformations occurring in the transport sector (IEA, Global EV Outlook, 2019).

In 2017, the EV30@30 Campaign was launched at the 8th CEM meeting to accelerate the deployment of electric vehicles further. It sets a collective aspirational goal for all EVI members of a 30% market share for electric cars in all vehicles (except two-wheelers) by 2030. The EV30@30 saw the endorsement of Eleven countries, namely, Canada, China, Finland, France, India, Japan, Mexico,

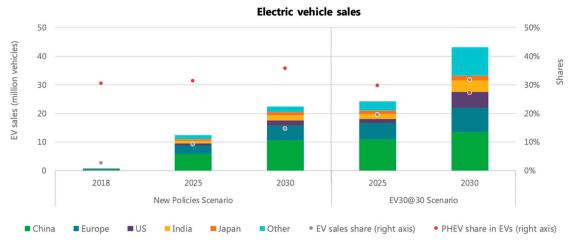
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Netherlands, Norway, Sweden and the United Kingdom. The campaign includes five implementing actions to help achieve the goal following the priorities and programmes of each EVI country. These include:

- Supporting the deployment of chargers and tracking progress.
- Galvanizing public and private sector commitments for EV uptake in company and supplier fleets.
- Scaling up policy research and information exchanges.
- Supporting governments needing policy and technical assistance through training and capacity building.
- Establishing the Global EV Pilot City Programme to achieve 100 EV-Friendly Cities over five years.

At the 9th CEM Meeting 2018, the Global EV Pilot City Programme, one of the implementing actions of the EV30@30 Campaign, was launched to work together to promote electric mobility by building a network of at least 100 cities over an initial period of five years. Thirty-nine towns are participating in the Global EV Pilot City Programme as of 2019.

With the increasing commitment from nations towards EVs via the introduction of various new policies and the EVI's EV30@30 movement, the EV segment is projected to take between 15%-30% of mainstream automotive market share by 2030 based on New Policies and EV30@30 scenarios (Figure 8).



**Figure 8. Electric Vehicle Sales Trends Projection 2018-2030.** Source: IEA analysis developed with the IEA Mobility Model (2019).

Technology advances have been accelerated rapidly, delivering substantial cost reduction with critical enabling development such as battery technologies and expansion of production capacity in manufacturing plants. The economics of scales derived has improved commercial affordability substantially. The redesign of vehicle manufacturing platforms using simpler and innovative design architecture shared research and development, and applying big data to right-size batteries have made EV production more commercially viable. The result of Charging platforms also has increased rapidly with better technological advancement for shorter charge time and governmental support on the increase in the numbers of charging stations

#### **METHODOLOGY**

A narrative synthesis was included in this extensive evaluation of the relevant literature. The outcomes of synthesis are recapped and clarified through the use of academic writing in the process known as narrative synthesis. The qualitative research method may be broken down into four steps: the research design stage, the data gathering step, the data analysis step, and the report writing step. A qualitative method known as content analysis makes use of verbal, visual, or written data to provide a systematic and objective description of a given phenomenon. As a result, content analysis makes it easier to arrive at reliable findings. In addition, it is a flexible method of data analysis that

may be applied to systematic qualitative reviews. To locate knowledge and theory, those doing systematic qualitative reviews must change or adapt content analysis methods to be compatible with highly organized and contextualized information. In conclusion, this inquiry (2023) used qualitative content analysis (Limna et al., 2022; Jaipong et al., 2022; Jaipong et al., 2023; Viphanphong et al., 2023; Sitthipon et al., 2023).

The keywords for secondary data supporting the literature review are as follows automotive, electric vehicle, market strategy, competitive advantage, and marketing strategy

#### THE IMPACT OF POLICY CHANGE ON THE 10 YEARS PLAN

While Proton is in the process of a "soul searching" mode and focuses on the internal fundamentals in the hope of a speedy recovery, the external factors of the industry which is highly influenced by governmental policies and pressure from climate change. As Porter's diamond model explained, these forces are expected to impose further pressure on Proton's regularisation effort to return to its golden age.

#### The National Transport Policy (NTP)

In 2019, the Malaysian Government introduced the National Transport Plan (NTP) with the following objectives:

Based on the NTP, a strong emphasis has been on promoting public transportation and environmental pollution control. The impact of digitization enables shared mobility services to become familiar with the proliferation of car-sharing and e-hailing platforms. As a result, the NTP will affect the usage of the entire transport network, including public and private transportation, impacting usage patterns, numbers and types of vehicle ownership. The carbon emission in the transport sector is mainly from land transport, constituting 90% & 67% is from cars. Regulatory control & standards will expect to be more stringent & will have an impact on the conventional & EV segments.

The NTP, while potentially having an impact on the demands for private vehicle ownership, however, at the same time, present an opportunity for public transport, especially in the e-hailing segment. Proton Saga was traditionally the model of choice for taxi services. The NTP may position the iconic model as the preferred vehicle choice for this segment.

#### The New Fuel Subsidies Policy: Target Subsidies Program (TSP)

In Malaysia's Budget 2020, TSP was introduced to replace the current fuel subsidies mechanism, which targets only those who own a private vehicle are eligible. Those with more than two cars and two motorcycles will not qualify for the subsidy. The vehicle(s) must match the following criteria:

- Cars with an engine capacity of 1,600cc and below
- Cars with an engine capacity over 1,600cc but ten years and older
- Motorcycles with an engine capacity of 150cc and below
- Motorcycles with an engine capacity over 150cc but seven years and older

This policy will potentially impact the preference over TSP model segments of cars moving forward. Car models eligible for fuel subsidies will tend to be favourably compared to those not. The product plan must consider these impacts and review its targets and development plan. Based on the current product offering, two models, namely the X70, one of the best-selling models, and Perdana, fall outside the TSP threshold, which accounts for approximately 30% of Proton's total sales in FY2019 to date. Compared with its domestic competitors, PERODUA has all its product offerings within the TSP threshold.

#### THE CONVERGENCE OF CONNECTED MOBILITY (C-V2X) AND 5G CONNECTIVITY

The concept of connectivity and mobility is not new. The idea of wireless communication can be traced back to 1866, when Mahlon Loomis, an American dentist, successfully demonstrated "wireless telegraphy", marking the first known instance of wireless aerial communication. Approximately 30

9

years later, Italian inventor Guglielmo Marconi proved the feasibility of radio communication with the first radio signal in Italy in 1895.

By 1899 he flashed the first wireless signal across the English Channel and two years later received the letter "S", telegraphed from England to Newfoundland, the first successful transatlantic radiotelegraph message in 1902. However, it was not until 1979, when the first-generation commercial cellular network (1G) was launched in Japan, marked the beginning of the wireless revolution, which eventually evolved into the world's first digital commercial cellular network (2G) in 1993 (about the time the commercial internet was launched) and shaped the digital world that we know today (Figure 9).

	<b>2</b> G	3c <sub>y</sub>	<b>4</b> 6	5g~	
Year Introduced	1993	2001	2009	2018	
Backbone Technology	GSM	WCDMA LTE, WIMAX		MINO, mm Waves	
Internet Service Band	Narrowband	Broadband	Ultra Broadband	Wireless World Wide Web	
Network Average Speed	64 Kbps	8 Mbps	50 Mbps	10 Gbps	
Key Characteristic	Multimedia features (SMS, MMS), internet access and SIM introduced	High security, international roaming	High speed handoffs, global mobility	Extremely high speeds, low latency	
Applications	Voice calls, short messages	Video conferencing, mobile TV, GPS	High speed applications, mobile TV, wearable devices	High resolution video streaming, remote contro of vehicles, robots and medical procedures	

Figure 9. Key Differentiation of Cellular Communication Technologies. Source: Author generated (2023).

According to Ericsson's November 2019 Report, 5G is estimated to have 2.6 billion subscriptions covering up to 65 per cent of the world's population and generating 45 per cent of the world's total mobile data traffic, making it the fastest-developing mobile communication technology to have ever been rolled out on a global scale by the end of 2025. These figures suggested the optimism of the 5G's market potential, considering the figures does not include the Internet of Things (IoT) or connected cars. 5G is therefore not just an issue for the telecommunications sector, but other branches of industry as well. The 5G integration with the automotive presents great potential that will reshape the industry's future, such as the connected cars applications and the ambitious autonomous driving.

Cellular Vehicle-to-Everything (C-V2X) has gained significant momentum as a viable solution for future automotive connectivity, safety needs, and autonomous-driving initiatives (Appendix 2.0). With both regulations around the world committing to the direction of V2X implementation such as the National Highway Traffic Safety Administration (NHTSA) plans to propose the compulsory introduction of vehicle-to-everything technology in 2020 for all US vehicles, as well as automotive players increasing investment into automotive Internet of Things (IoT) and V2X development, the automotive industry is expected to be among the top four sectors in terms of the 5G-enabled opportunity for service providers in 2030.



Figure 10. The changing trend of the automotive Industry 2009-2018. Source: Deloitte's Global Automotive Consumer Study, 2019.

While Proton is in the progress of a "soul searching" mode and focuses on the internal fundamentals in the hope of a speedy recovery, the external factors of the industry, which is now significantly influenced by governmental policies and pressure from climate change, these forces as explained by Porter's diamond model imposed further pressure and challenges on Proton's quest to return to its golden age.

In 2019 Deloitte's Global Automotive Consumer Study (Exhibit 10.0), the trend of the industry continued to shift over the last ten years towards EVs compared to conventional internal combustion engines (ICE). Thus, it is essential for Proton to continuously evaluate its long-term market strategy to remain resilient and competitive for its survival in this highly competitive industry. As such, this study highlights the unaddressed key issues observed in the 10-Year Plan that is vital given the scenario stated:

#### 1) Absence of A Clear Roadmap for Proton's Technological Development

The Proton 10 Years Plan was announced as part of a corporate communication strategy to reaffirm its new directive and its commitment to provide a better product and service to restore customers' and stakeholders' confidence. The Plan is consistent with the notion that effective communication of corporate identity and directives will suggest a better understanding to its stakeholders, potentially developing a competitive advantage against its competitors (Balmer & Gray,1999).

From the 10 Years Plan, the company intends to emphasize the fundamental principles of 1) Cost Reduction, 2) Quality/Service Improvement, 3) Productivity Enhancement, and 4) Market Share Expansion with the hope of improving its brand value by accomplishing the above goals. The Plan implied its likeliness to remain focused on the ICE path. While the Plan provided a brief statement of incorporating new energy technologies and talent development, its technology directions and any plans to address the future automotive trend remain unclear. The inclusion of the technology roadmap will potentially enhance Proton's stakeholders' confidence as to the certainty of the company's future.

#### 2) The Lack of Action Plans to Address the Climate Change Impact

The disruptive technology of EVs in the automotive industry has developed rapidly since the early 2000s. It has gained tremendous traction since the 2010s due to the global commitment towards combatting Climate Change. Pressure for "greener" transportation and CO2 emission reduction has accelerated the technological advancement of both ICEs and EVs related developments such as better battery performance and fuel-efficient ICEs. Major automotive firms have recently made dramatic changes to their operations in pursuit of sustainability and bold commitments to reduce carbon emissions while simultaneously expanding their offering of EVs as their mainstream offering (Austin, Rosinski, Sauer & Le Duc, 2003). The seriousness of the emission reduction impact reached its height

in 2015 due to the notorious Volkswagen emissions scandal, which cost the company over €30 Billion in class action claims.

However, the migration of ICEs towards EVs comes with a catch where the underlying technologies are two distinctive disciplines. Since the introduction of automobiles, nearly all vehicles have been driven by the same combination of an internal combustion engine mated to a mechanical transmission. Further, electric cars are based on a fundamentally different technology, consisting of a battery system and electric motors. This technological migration requires a significant operational revamp.

At the point of this study, Proton has no disclosure over the compliance of its product offering towards any CO2 emission standards in the product specification (Exhibit 11.0). In summary, there is a lack of clarity on Proton's commitment towards addressing climate change and CO2 emission.

	PERODUA	PROTON	HONDA	TOYOTA	NISSAN	Mazoa	Mercedes-Benz		(M ISUZU	MITSUBISHI MOTORS
Hybrid/EV Models	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
European Em ission Standard 6 Com pliance	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Product Models within STP Threshold	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No

Figure 11. Comparison of Top 10 Auto-Makers in the Malaysia Market. Source: Author generated (2023).

#### 3) The Need for a Market Strategy to Address the Emerging EVs & Automotive IoT Market

Since the 2000s, Proton has been proposing and working on the idea of producing its hybrid and EVs for over a decade and announced that it would be collaborating with Bosch for hybrid cars as early as 2010. Since then, the project did not materialize and reached the commercialization stage for unknown reasons. According to Infosys Limited 2018 report, EVs will be the disruptive force of the automotive ecosystem, reshaping the automotive industry we know (Appendix 3.0). The continuous investments from auto-makers and technological innovation to bring down the costs of EVs components will foster rapid growth in the EVs demands. Competition in the EVs segment is anticipated to be fierce, rapid adaption and projected to account for more than one-quarter of the global car market within the next five years.

According to the analysis based on the McKinsey Connected Car Customer Experience (C3X) framework (Appendix 4.0), which describes five levels of user experience in connected cars, ranging from the most basic to the highly complex integration, the research shows that by 2030, nearly half of the new vehicles sold worldwide could be at level three or higher. Although the adoption rate of EVs remains at the infant stage, the year-to-year growth rate has been encouraging and gaining significant traction since 2014 at an average of 60 per cent per annum, illustrated in Exhibit 12.0 (McKinsey & Company, 2019).

While as a market follower with an adapter, the approach does have its advantage in terms of lower development costs as the technology is now becoming more mature. The stability of the technology is compared to the earlier version. Proton's late start in both EVs and Automotive IoT race will anticipate challenges to compete effectively given its lack of access to these technological capabilities due to resource constraints. Its competitors are primarily in the development of second or third-generation EVs & Automotive IoT.

### The global market for electric vehicles has grown at about 60 percent per year, reaching 2.1 million in 2018.

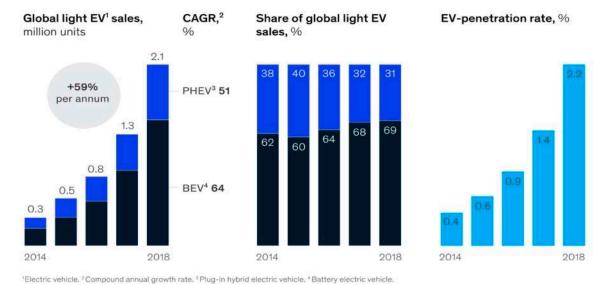


Figure 12. EVs Market Statistic 2014 to 2018. Source: Mckinsey and Company (2018).

#### "Running to Stand Still" - The Proton Market Rule of Engagement Ahead

The level of market competition in the automotive industry, both domestically and abroad, will continue to be competitive. One automaker's perceived competitive advantage period is anticipated to shorten incredibly in the EVs and Automotive IoT arena. Market Adapter auto-makers are expected to be more technologically integrated than before. A shift of paradigm from the conventional development cycle, which typically takes five to seven years, as experienced in the past, is shortened tremendously as the industry is moving towards the digitization phase of the industry.

While the Post Geely performance of Proton shows a positive sign of a turnaround, its focus remains internal-centric, i.e., improving operational productivity and efficiency. Since 2017, the new leadership has successfully brought operational level improvement. It upgrades 3S centres to enhance overall customer experience, supply chain streamlining that improves cost and consolidation of manufacturing facilities to improve operational efficiency. On product development, introducing the X70 Sport Utility Vehicle, a rebadge product line from Geely's Boyue model helps improve Proton's market share and sales figures. However, it is still far from recovery compared to FY2012 at 141,120 units and its domestic rival, PERODUA. The technological synergy which is expected from Geely-Volvo's technological innovation and success has yet to be seen. With the disposal of Lotus in 2017, Proton's lack of technical know-how and innovation to address both the opportunities and threats at present and future remain the main challenge that needs to be handled urgently to ensure its long-term sustainability.

The EVs market share growth potential, and the emergence of automotive IoT, coupled with the foreseeable regulatory and policies change, these forces will inevitably emerge as major disruptive factors in the automotive market's future, as Porter's Competitive Model suggests. The strategic relationship of Geely-Volvo (the latter is well-known for its market leadership in EVs technologies development) presents an opportunity for Proton to establish a competitive advantage in Malaysia's EVs market. It is opposed to PERODUA, its immediate rival, facing similar technological disadvantages in the market segment. Indeed, with the ability of Proton to foster the necessary technical know-how and product-market integration. The EVs and the Automotive IoT segment will potentially provide Proton with the long-waited cutting-edge advantage to regain the market share position as the leader in the domestic market and regional market penetration.

#### **RECOMMENDATIONS & IMPLEMENTATION:**

Geely has struggled, overcome obstacles, and achieved some kind of success. The corporation transitioned from producing low-quality cars to producing new products with advanced technology, such as electric cars. With an advanced idea for digital marketing transformation, Geely will implement highly automated advanced manufacturing technologies, including artificial intelligence and robots. The purpose of this case study is to investigate whether or not the plan developed by Post Geely to improve Geely's ability to compete successfully on a global scale was successful. Given the difficulties that are caused by climate change having an effect on the automobile industry, this case study shows that there is a need for a review of the business strategy that is now in place. In order to build the essential long-term competitive advantage, the company needs to conduct an analysis of the possible impact that the Internet of Things (IoT) industry and the market for electric vehicles (EVs) could have with 5G technology (Lim, 2022).

Traditionally, Proton tends to focus more on its ability to offer products using a cost-leadership strategy, which it believes the low price will translate to a high market share. As observed with the Proton X70 model, price leadership (at least among its product offerings) does not necessarily emerge as the top consideration for a buyer's decision. A differentiation strategy emphasizing product features primarily on safety and user experience differentiation tends to weigh more in the buyer's decision-making process (Banker, Mashruwala & Tripathy, 2014).

The increased competition and complexity of consumer behavior are driven by the fact that customers are better informed (the digitization of information) and more comparisons of choices. It is becoming more crucial for a firm to align its market strategy towards the solutions that best-served the consumers' needs (Kolk & Pinkse, 2004). This study suggests a holistic marketing mix strategy, converging the 4Ps and 4Cs framework.

#### Strategic Technology-Product Development Plan

Both the challenges and opportunities faced by the company are crucial and immediate, which rely heavily on the ability to respond with technological capabilities within a short period. Proton's current financial conditions, which are highly geared, and the possibility of cash-flow constraints might potentially limit the ability of Proton to acquire the necessary technological know-how for the intended purposes suggested in Appendix 5.0.

Fortunately, via Geely's strategic partnership, Proton could access technological and financial resources subject to the terms and conditions that benefit all parties. Such agreement can only be accomplished with the commitment of the cross-entities management, namely, Geely, Volvo, Lotus and Proton, especially over the technological capabilities for Proton's future ICE Powertrain and EVs development.

Although the proposition might appear logical and viable to Proton, it does come with certain complications: The conflicting relationships: Subsidiary versus Associate Company – Both Volvo (99%) and Lotus (51%) are subsidiaries of Geely, while Geely owns 49.9% of Proton. Any technological transfer is most likely carried out on an arm's length basis, i.e. a price to be paid. Therefore, developing the technology roadmap is needed to address the lack of technological knowhow to overcome the challenges, capture the opportunities, and identify the potential conflict of interest on intellectual properties, production rights, and market rights to prevent future disputes. Another aspect to consider is determining the suitable mode of collaboration, such as Partnership, Technology Licensing to arrive at a mutually beneficial arrangement between the entities.

The potential future collaboration of standard platform research and development approach is from cooperative or joint development to optimize the Research & Development costs (comparable to the Porsche-Audi-Volkswagen model) for mutual benefits. Besides, both Volvo and Lotus were acquired by Geely due to their financial difficulties, and the joint development proposition might be attractive to all parties. Volvo's target to be a fully EV or Hybrid car producer by 2040 will have much to offer on Proton's EVs development.

14

#### Possibility of an EVs Charging Infrastructure Investment

Based on IEA projections, global electric car sales will reach 23 million, and the stock will exceed 130 million vehicles by 2030, accounting for 30% automotive market share for EVs. Electricity demand to serve EVs is projected to reach almost 640 terawatt-hours (TWh) by 2030. One of the main challenges for EV proliferation is an "egg and chicken" scenario, i.e. the lack of EV chargers stations. Based on the ChargEV report, an EV charging service provider in Malaysia, the current number of public EV charger stations in the country remains low and under-served. ChargEV currently provides its charging service via an annual subscription fee of RM240 per annum, allowing its member access to the 278 stations nationwide.

An EV charging infrastructure investment will be a strategic plan to complement Proton's EVs models and a spin-off for a recurring income business model. The EVs Charging Infrastructure can potentially capture rival EVs customers. There is also a need to develop a strategic collaboration with Utility Providers, Petrol Kiosks, car-park operators and retail malls. Incorporating the charging costs as part of the cost of ownership over the warranty period might be a good proposition for its EVs market strategy and future recurring income stream.

Market entry strategy which favours a "brown-field" acquisition strategy (i.e. the possibility of acquiring Charge EV) over a "green field" setup given the advantages: 1) the fast entry to the market, 2) avoiding competition and 3) the existing base of EVs Charging Stations, technical and operational experience. A strategic proliferation plan to cover 85% of the urban network over the next five years where high EV users are expected. The estimated target is to expand 10,000 charging stations nationwide in major metropolitan areas to achieve the 85% coverage goal. The cost to set up a charging station is estimated at RM6,000 – 8,000 per station, equivalent to RM 60,000,000 – 80,000,000.

#### **Conclusion:**

With the backdrop of business, dynamics shift in the automotive industry, Proton needs to accelerate the innovation for technological and marketing changes in preparation for the intensified competition due to national automotive policy reform. Proton's business strategy must incorporate a strategic planning approach and acquire the necessary technical know-how. It also expands the value chain beyond car production to downstream Infrastructure. Geely's strategic partnership no doubt provides Proton with the edge needed, which can be further capitalized to enhance its domestic and international market competitiveness. The emerging EV growth presents both the opportunity and challenges to Proton, which can be a potential game changer for Proton to develop a sustainable competitive advantage for its future product offering.

#### **Discussion Questions:**

- 1. Proton's primary cost reduction strategy is switching to supplier sourcing. To What is the extent of this impact on Proton Pricing Strategy?
- 2. One of Proton's key weaknesses is the lack of research and development. Given the EV trend, is it better for Proton to in-house develop these capabilities? What are the potential alternatives that Proton can consider to address its weaknesses?
- 3. Proton's strategic partner, Geely, is known for advocating for Electric Vehicle Initiative. What are the possible mode of collaboration and the potential challenges of these collaborations?
- 4. What are the potential options for Proton to overcome the financial constraints?
- 5. The public transport vehicle segment used to be a key market for Proton. With the emergence of the e-Hailling trend, what are the opportunities and challenges to Proton?
- 6. The COVID-19 pandemic has changed the global market dynamics significantly. How does this impact Proton's ten years plan and marketing strategy?

15

Appendix 1.0 – Equipment and Announcement

Original equipment manufacturer	Announcement					
BMW	15-25% of the BMW Group's sales in 2025 and 25 new EV models by 2025.					
BJEV-BAIC	0.5 million electric car sales in 2020 and 1.3 million electric car sales in 2025.					
BYD	0.6 million electric car sales in 2020.					
Chonquing Changan	21 new BEV models and 12 new PHEV models by 2025, 1.7 million sales by 2025 (100% of group's sales).					
Dongfeng Motor CO	6 new EV models by 2020 and 30% electric sales share in 2022.					
FCA	28 new EV models by 2022.					
Ford	40 new EV models by 2022.					
Geely	1 million sales and 90% of sales in 2020.					
GM	20 new EV models by 2023.					
Honda	15% electric vehicle sale share in 2030 (part of two-thirds of electrified vehicles by 2030, globally and by 2025 in Europe).					
Hyundai-Kia	12 new EV models by 2020.					
Mahindra & Mahindra	0.036 million electric car sales in 2020.					
Mazda	One new EV model in 2020 and 5% of Mazda sales to be fully electric by 2030.					
Mercedes-Benz	0.1 million sales in 2020, 10 new EV models by 2022 and 25% of the group's sales in 2025.					
Other Chinese OEMs	7 million sales in 2020.					
PSA	0.9 million sales in 2022.					
Renault-Nissan- Mitsubishi	12 new EV models by 2022. Renault plans 20% of the group's sales in 2022 to be fully electric. Infiniti plans to have all models electric by 2021.					
Maruti Suzuki	A new EV models in 2020, <b>35 000 electric car sales in 2021</b> up to <b>1.5 million in 2030.</b>					
Tesla	Around 0.5 million sales in 2019 and a new EV model in 2030.					
Toyota	<b>More than</b> ten new models <b>by the early 2020s</b> and 1 million BEV and FCEV sales <b>around</b> 2030.					
Volkswagen	0.4 million electric car sales in 2020, up to <b>3 million electric car sales in 2025</b> , 25% of the group's sales in 2025, 80 new EV models by 2025 and <b>22 million cumulative sales by 2030</b> .					
Volvo	50% of group's sales to be fully electric by 2025.					

Source: IEA, Global EV Outlook (2019).

Appendix 2.0 – Illustration of V2X applications Ecosystem



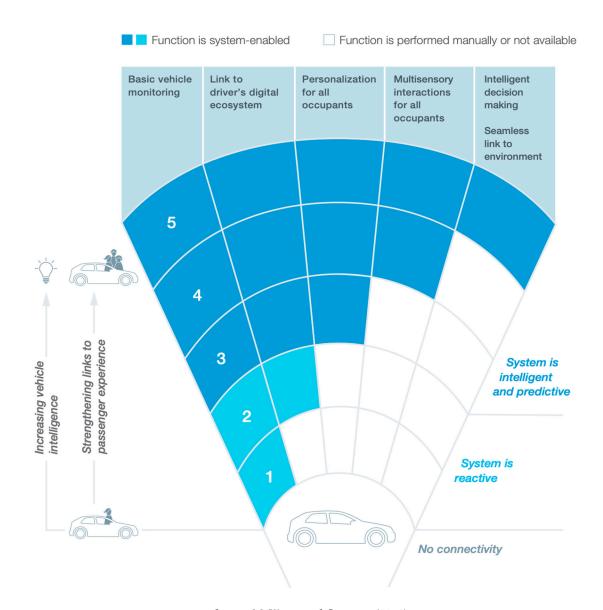
Source: Qualcomm, C-V2X framework (2017).

Appendix 3.0 – EVs Trend in Automotive Industry Next 5 to 10 Years

The Electric Vehicle Initiative seeks to facilitate the global deployment of at least 20 million passenger car EVs, including plug-in hybrid and fuel cell electric vehicles, by 2020. EVs - both hybrid and pure electric cars - will make up more than one-quarter of the global **Electric vehicles** car market within just 10 years, their numbers growing from around 1 million today to around 25 million in 2025. will disrupt the Plug-in electric vehicle sales are forecasted to reach 400,073 in annual sales in the US automobile market and 107,146 in Canada by 2020. industry in the The PricewaterhouseCoopers Autofacts team estimates sales of pure electric, plug-in mild and full hybrids will grow 433% to 2.2 million units by 2021, driven by a number of next 5 to 10 years factors, including regulatory pressure. Navigant Research has forecasted that the annual plug-in electric vehicles sales will exceed 860,000 in 2024

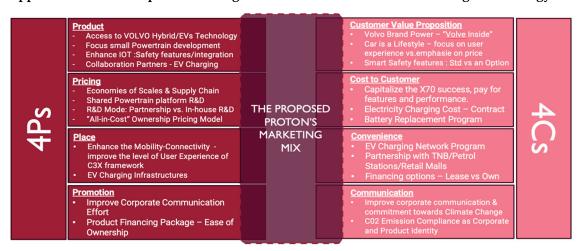
Source: Infosys Limited (2018).

Appendix 4.0 – The McKinsey Connected Car Customer Experience (C3X) framework



Source: McKinsey and Company (2018).

Appendix 5.0 - The Proposed Convergence Model of the Proton's Marketing Mix Strategy



Source: Author generated, 4Ps versus 4Cs approach mode (2023).

19

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