

Automotive Consumerism in Malaysia with Regard to Car Maintenance

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REVIEW

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Abstract – This paper aims to review relevant legal framework, statistics, news reports and findings from the ‘automotive ecosystem’ study by MIROS relating to car maintenance issues in Malaysia. The automotive consumerism data mainly comes from the Road Transport Department (RTD), Ministry of Domestic Trade, Co-operatives and Consumerism (MDTCC) and National Consumer Complaints Centre (NCCC), in addition to news articles via web search. In summary, there are several laws and legislations involving various authorities which can be utilised to safeguard automotive consumers ranging from before car registration, during car ownership up to de-registration of the car. Based on the statistics and news reports, car maintenance complaints mostly involved motor vehicle workshop and parts, accessories as well as vehicles. With respect to motor vehicle workshop, quality of repair received the highest number of complaints in NCCC report in 2015 (51.1%), while sales service and manufacturing defects were the main issues in the parts, accessories and vehicles category (22.5% and 21.4% respectively). In regard to car users’ behaviour in Klang Valley (500 respondents) and Kuching (300 respondents), a majority of them chose to bring their cars for maintenance either to authorised service centre or general car workshops, instead of performing the maintenance themselves or alternating between the available options. Most car users’ agreed on the importance of scheduled maintenance according to manufacturer recommendation and performing maintenance at general car workshops. However, they are unsure of the quality, in addition to maintenance and retrofitting behaviour.

Keywords: Automotive consumerism, car maintenance

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1.0 INTRODUCTION

In 2015, the National Consumer Complaints Centre (NCCC) Malaysia reportedly received complaints related to the automobile sector amounting to MYR 81 million in potential losses;

encompassing issues from faulty vehicles to misleading ads (NCCC, 2015). At the same time, the mass media and social network have constantly provided evidence and discussion pertaining to the same issue – the disturbing state of automotive consumerism in the country. As a result, Shabana Naseer, a representative of NCCC as well as Federation of Malaysian Consumers Associations (FOMCA), had called for more protection in Malaysia to ensure that vehicle ownership experience “do not become a financial liability” or “pose harm to the users” (Naseer, 2017).

The issue of maintenance is one of the apparent nuisances among car owners. The truth is, not everyone has ample knowledge or perhaps the willingness to learn about the technicality of car maintenance. It may also be a daunting fact for some users to know that a single car has about 30,000 parts – counting every part down to the smallest screws (Toyota Motor Corporation, n.d.). With such a huge number of items and complicated arrangements, the potential of a car to fail or experience reduced performance is fairly high due to many factors.

At a macro level, the entire car maintenance ecosystem is a huge market for related businesses. Sales of new car in Malaysia reach about half a million units per year; with 10 million units of existing cars already in the ecosystem (Mohd Jawi et al., 2012). Evidently, this is a huge population of cars that need to be maintained in order to ensure their roadworthiness level. The users have several options when it comes to car maintenance, namely going to official service centres (SCs), general car workshops, opt to self-maintain or mix among the three choices. As a matter of fact, most users are highly reliant on maintenance service and parts offered by SCs and car workshops. Nevertheless, previous studies have highlighted that these car users were likely to experience several disadvantages, namely inability to assess car condition and behaviour, falling victim to unscrupulous technicians, unable to decide what’s best for certain problems, and failure to appreciate quality and professional maintenance work (Mohd Jawi et al., 2012).

1.1 Aftermarket Supplies at a Glance

Apart from the issue of maintenance work at the SCs or car workshops, automotive components, systems and separate technical units are the most crucial items related to car maintenance. According to European Union’s (EU) document, or specifically Directive 2007/46/EC (European Union, 2007), ‘system’ means “*an assembly of devices combined to perform one or more specific functions in a vehicle and which is subject to the requirements of any of the regulatory acts*”. Meanwhile, ‘component’ means “*a device subject to the requirements of a regulatory act and intended to be part of a vehicle, which may be type-approved independently of a vehicle where the regulatory act makes express provisions for so doing*”. ‘Separate technical unit’ means “*a device subject to the requirements of a regulatory act and intended to be part of a vehicle, which may be type-approved separately, but only in relation to one or more specified types of vehicle where the regulatory act makes express provisions for so doing*”.

These aftermarket items can be further divided into new and used supplies. Mohd Jawi et al. (2012) suggested there are four sub-categories of new automotive parts supplies (including subsystems and systems; see Figure 1) which are: (1) approved parts; (2) official parts; (3) substandard parts; and (4) fake parts. The approved parts comply with regulations or standards gazetted by the authority (according to any/several standards). The official parts, on the other hand, are approved by the car makers as official product but not necessarily approved per locally recognised regulations or standards, or also being referred to as ‘manufacturer

standard'. The substandard and fake parts are produced outside the so-called 'official chain' by the Replacement Equipment Manufacturers (REMs) (Mat Jusop et al., 2015). As a general rule, approved and official parts are proven in terms of safety and are environmental friendly, though this is not the case for substandard and fake parts.

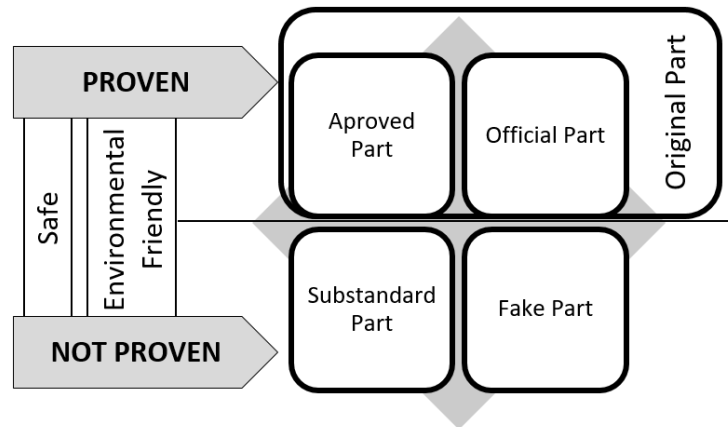


Figure 1: Sub-categories of new automotive parts supplies

In Europe, approved and official parts are also referred to as original parts. According to Directive 2007/46/EC (European Union, 2007), 'original parts or equipment' means "*parts or equipment which are manufactured according to the specifications and production standards provided by the vehicle manufacturer for the production of parts or equipment for the assembly of the vehicle in question*". This includes parts or equipment manufactured on the same production line as the parts or equipment for assembly of cars. It is presumed, unless proven otherwise, that parts constitute original parts if the part manufacturer certifies that they match the quality of the components used for the assembly of the vehicle in question and have been manufactured according to the vehicle manufacturer's specifications and production standards.

Further, the used supplies can be divided into local or imported supply. Local supplies include parts obtained from the cars in the system such as from trade-in activities, cars that are no longer roadworthy, cars involved in crashes especially in 'total loss' cases, confiscated cars due to legal action and also from car theft. Imported used supplies are usually sourced from what is called the 'half-cut' – referring to cars being cut into halves for salvage purposes. For example, users may ask for certain parts from the half-unit – front-end which consists of engine, radiator, transmission unit; rear-end consisting of fuel tank, fuel pump, part of the exhaust system – or may buy the whole half-unit (Mohd Jawi et al., 2012).

1.2 Motivation and Objectives

The authors believe that there is a dearth of references, particularly scholarly articles, on the subject of car maintenance in the country. The better statement would be that everyone acknowledges there is an unstable situation in the maintenance ecosystem but the framework to overcome such a situation has never been explored comprehensively. Thus, this review is produced to gather available references with regard to car maintenance among Malaysian users. Specifically, the review aims to meet the following objectives, namely (1) to gather information on the legal framework relating to automotive consumerism; (2) to gather relevant statistics and news reports on users' grievances with regard to their car maintenance experiences; and

(3) to review the findings from MIROS' 'Automotive Ecosystem' study relating to car maintenance issues.

2.0 METHODOLOGY

In order to better explain Automotive Consumerism in Malaysia, the authors have divided the subject into three stages ranging from Before Registration (BR) to Vehicle Ownership (VO) and finally De-registration (DR). BR leans towards the mandatory compliance by vehicle manufacturers or traders with regard to Vehicle Type Approval (VTA) before the product can enter the market. VO, on the other hand, is the period when users are supposed to bear the travelling costs and also maintenance commitment so that their cars remain reliable and roadworthy. Finally, DR is the time when cars are officially removed from the register as an outcome of being not roadworthy or in the state of Beyond Economic Repair (BER).

Based on the above objectives, the authors have gathered relevant documents such as peer-reviewed articles, statutes and grey literatures. References relating to De-registration (DR) were left out since the subject under review only encompass Before Registration (BR) and Vehicle Ownership (VO) stages. The automotive consumerism data were based on NCCC and the Ministry of Domestic Trade, Co-operatives and Consumerism (KPDNKK) reports. In addition, web search for news articles were directed by the following keywords, which included: faulty new vehicle (*kenderaan baru bermasalah*); fake vehicle spare part (*alat ganti kenderaan tiruan*); vehicle workshop fraud (*penipuan bengkel kenderaan*); vehicle breakdown (*kereta rosak*); spare part fraud (*penipuan alat ganti*); and fake engine oil (*minyak enjin palsu*). This review also recapped the data from a continuous study by MIROS since 2009 known as the 'Automotive Ecosystem in Malaysia'. The most recent data was a survey on practices and behaviours on various aspects of automotive consumerism in two different cities namely Klang Valley in West Malaysia (WM) and Kuching in East Malaysia (EM).

3.0 RESULTS AND DISCUSSION

Findings of this review are divided into three sections according to the objectives specified in Section 1.2.

3.1 Legal Framework on Automotive Consumerism

As mentioned earlier, automotive consumerism can be divided into three stages, which are Before Registration (BR), Vehicle Ownership (VO) and De-registration (DR). Every single stage involves different authorities and several laws. According to Sabri (2014), consumer protection legislations include: (1) *Consumer Protection Act 1999*; (2) *Hire Purchase Act 1967*; (3) *Price Control and Anti Profiteering Act 2011*; (4) *Control of Supplies Act 1961*; (5) *Trade Descriptions Act 1972*; (6) *Weights and Measures Act 1972*; (7) *Direct Sales and Anti-Pyramid Scheme Act 1993*; (8) *Sale of Goods Act 1957*; (9) *Contracts Act 1950*; (10) *Food Act 1993*; (11) *Communication and Multimedia Act 1998*; (12) *Consumer Protection (Safety Standards for Toys) Regulations 2010*; (13) *Consumer Protection (Certification of Approval and Conformity Mark of Safety Standards) Regulations 2010*; (14) *Malaysian Code of Advertising Practice 1990*; and (15) *Personal Data Protection Act 2010*. However, for the sake of brevity and to focus on automotive consumerism particularly car maintenance, this review only covers the legislations that directly provide protection regarding automotive consumerism during BR and VO stages, as shown in Figure 2.



Figure 2: Laws related to automotive consumerism by stages

3.1.1 Before Registration (BR) stage

It is important to ensure all vehicles are roadworthy and has good quality to ensure minimal aftermarket issues. During BR, in order to guarantee the safety and quality of vehicle that is to be registered in Malaysia – including its components, systems and separate technical unit – the government through Road Transport Department (RTD) Malaysia or better known as *Jabatan Pengangkutan Jalan (JPJ)* and the Department of Environment (DOE) have imposed mandatory compliance towards Vehicle Type Approval & Homologation (VTA) under the Road Transport Act 1987 and the Environmental Quality Act 1974 (Mohd Jawi et al., 2016).

Based on Vehicle Type Approval Guidelines Amendment 2015 (Road Transport Department, 2015), vehicle manufacturers are required to declare all the systems, components and separate technical unit including their alternative units to be assembled, installed or manufactured in their vehicles together with document of adherence to gazetted regulations and standards (Road Transport Department, 2015). These documents will later be used for the Conformity of Production (COP) purposes or whenever issues arise during the VO stage. Moreover, referring to the Rules 9(A) of Rules of Motor Vehicle (Construction and Use) 1959 – regarding approval for construction of motor vehicle – every motor vehicle must comply with the requirement on details, types, design, suitability of use and build in accordance to plan and drawings approved by the Director-General of RTD. Moreover, Rules 9(A) also stated that every motor vehicle must comply with the specification of gazetted United Nations Regulations (UNR) on vehicle safety as listed on Schedule 3, Rules of Motor Vehicle (Construction and Use) 1959. Until March 2017, a total of 100 UNRs have been gazetted under the Road Transport Rules as per **Appendix I**.

In addition, all the requirements under the Road Transport Act and Environmental Quality Act can be used together with the Sales of Good Act and Hire Purchase Act to safeguard consumers in Malaysia from purchasing and registering un-safe and non-environmental friendly or sub-standard vehicles. According to RTD statistics, a total of 456 new vehicle models have gone through VTA exercise in 2016 and only 15 new models have failed. The breakdown of new models that passed VTA based on vehicle categories were 222 (50.3%) passenger vehicles, 80 (18.1%) motorcycles, 114 (25.9%) goods vehicles/trailers and 25 (5.7%) off-road vehicles (see Figure 3).

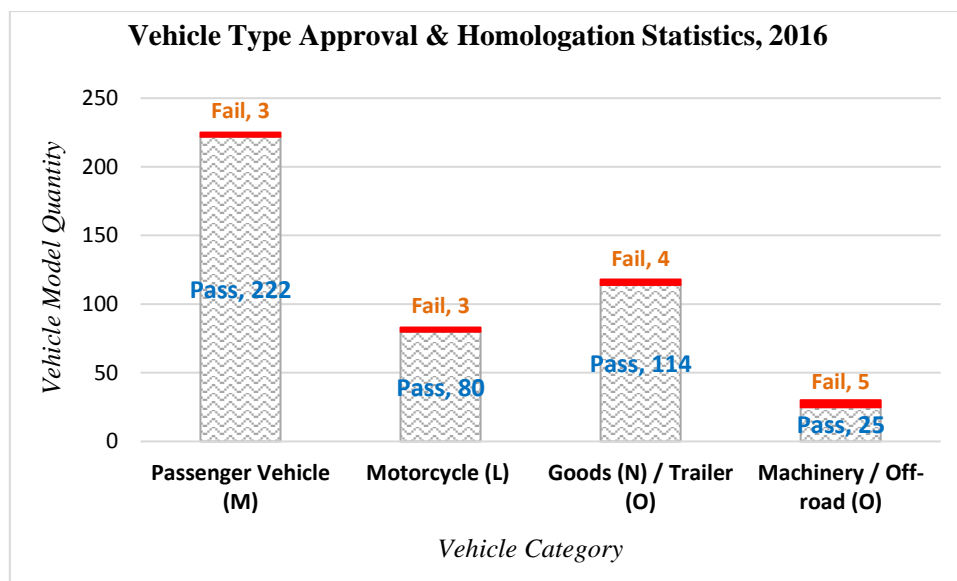


Figure 3: VTA statistics in 2016 based on vehicle categories

Other than the mandatory VTA exercise, the Ministry of Transport Malaysia (MOT) through the Malaysian Institute of Road Safety Research (MIROS) has been consistently promoting the voluntary-based New Car Assessment Program for Southeast Asia (ASEAN NCAP) in order to elevate vehicle safety standards, raise consumer awareness and encourage a market for safer vehicles in Malaysia (Mohd Jawi et al., 2016).

3.1.2 Vehicle Ownership (VO) stage

Section 66(1) of the Road Transport Act 1987 authorises RTD to instruct vehicle manufacturers for ‘recall’ exercise for vehicles registered and used by the consumers. Any type approved vehicle that has manufacturing defect such as inconsistent performance, safety related defects and environmental issues will be put on recall exercise. According to RTD statistics for 2016, a total of 748,122 units of type approved vehicles have been recalled due to various issues.

The Environmental Quality Act and Rule of Motor Vehicle (Construction & Use) 1959 also mentioned the specifications and standards regarding construction and use of motor vehicle that must be followed by road users. This particular clause demands vehicle users to ensure their vehicle is roadworthy. On the other hand, to fulfil the legal framework related to consumer protections, the Ministry of Domestic Trade, Co-operatives and Consumerism (MDTCC) or better known locally in its Malay acronym as *KPDNKK* plays the specific role by enforcing the following acts, namely Consumer Protection Act 1999; Sales of Good Act 1957; and Trade Description Act 2011. Each of these acts will be used for different purposes and issues. Table 1 explains the roles of the abovementioned legislations on car maintenance and protecting consumer rights based on acquiring parts and accessories (inclusive of parts, systems and separate technical units), maintenance work (by SCs, workshops or self-maintenance) and relating to vehicle as a unit.

Table 1: Roles of legislations related to consumer protection

| Legislation | Parts & Accessories | Maintenance Work | Vehicle as a Unit |
|--|--|--|--|
| Trade Description Act 2011 | Protection against fake or counterfeit aftermarket parts & accessories as defined under Section 7, Trade Description Act 2011 (Act 730) regarding false trade description. | Protection against exploitation, manipulation, fraud, intimidation or any kind of bad services received by consumer related to maintenance work. | |
| Consumer Protection Act 1999 | Protection involving approved, official, sub-standard or fake part either from vehicle manufacturer and its representative, OEMs, REMs, motor vehicle workshop or motor vehicle parts and accessories shop. (e.g. defective parts, accessories faulty) | | Protect the consumer if the vehicle does not perform or as shown by advertisement, sample car or test drive car. In addition, protection provided if the actual vehicle is not according to vehicle submitted for type approval process under Road Transport Act 1987 and/or Environmental Quality Act 1974. |
| Sales of Good Act 1957 | | | |
| Road Transport Act 1987 | Recall parts & accessories on type approved vehicle that are originally installed or assembled by vehicle manufacturer or its representative which is defective, faulty or incompliance to type approval legislation. | | Recall type approved vehicle which is defective and may cause safety or environmental issues. |
| Trade Description Order | Controlling trade of pneumatic tyres, motorcycle helmets and brake pads, and other automotive parts and equipment through mandatory standards or regulation compliance markings such as ‘MS’ logo*, ‘E’ marking** and/or ‘DOT’ symbol***. | | |
| Customs (Prohibition of Imports) Order 2017 | Controlling imports of some automotive components, system and separate technical unit according to manners as described in Appendix II . | | Controlling imports of a vehicle so that it complies with all the manners inclusive of manners related to safety and environmental. |

* **MS** – Markings on components or equipment that are certified comply to Malaysian Standard (MS) by standards organization or certification agency or testing agency which is recognized by the Department of Standard Malaysia

** **E-marking** – Markings on components or equipment that are certified comply to United Nations Regulation (UNR) under World Forum for Harmonization of Vehicle Regulations (WP29)

*** **DOT** – Markings to indicate the compliance towards Federal Motor Vehicle Safety Standards (FMVSS) by National Highway Traffic Safety Administration of United States of America

The Tribunal for Consumer Claims Malaysia (TCCM) also plays an important role in upholding consumer rights and to ensure the authenticity of the acquired items. Established in 1999 under the Consumer Protection Act 1999, TCCM acts as an alternative platform for consumers to lodge and claim their losses with regards to items purchased or services acquired from traders or service providers, in which the total amount claimed shall not exceed MYR 25,000 (MDTCC, n.d.). TCCM is able to assist consumers in minor cases without bringing them to civil courts where the procedures are more complicated, the costs are higher and more time consuming. According to statistics produced by MDTCC, in 2013, 6,233 complaints were lodged by the consumers to TCCM and roughly 12% of them involved automotive maintenance (MDTCC, 2016). An interesting fact is that most of the complainants had successfully won their cases and claimed losses (Sinar Harian, 2016).

3.2 Automotive Consumerism Data from Related Sources

This section discusses the information gathered from news reports, statistics of complaints regarding motor vehicle workshops and statistics with regard to complaints on parts, accessories and vehicles. The findings are important to understand the magnitude of the problem based on available data – with the assumption that the issue might be bigger than what has been presented due to underreporting and lack of awareness about consumer rights.

3.2.1 Analysis of news reports

Based on the analysis of news reports, poor service quality, fake spare parts, mechanic misconducts and high repair costs were among the most frequent issues raised (see Figure 4). Aside from costing consumers a lot of money, they are also faced with the problem of poor quality and dubious parts for years to come. It was found that apart from experiencing bad service quality, car users have also fallen victim to workshops which charged exorbitant prices (Sinar Harian, 2012). On some occasions, their vehicle was not properly repaired with the problem recurring (Utusan Malaysia, 2011). As a result, consumers have to repeatedly visit the workshops to fix the same problem while having the “no-car” moment (few days if not weeks) that will affect their daily routine (e.g. fetching kids to school), career (e.g. commuting problem) or economic situation (e.g. loss of opportunities especially those who are self-employed or running small businesses).

Another major issue faced by the automotive consumers is the authenticity of the spare parts sold by workshops. Based on the online news search, there was no report on SCs or authorised workshops supplying substandard or fake spare parts. Thus, this issue was more prevalent among general car workshops by virtue of high demands and cheaper price tags. For example, a news report by *myMetro* dated 23 February 2017 (Bungga, 2017), highlighted the case where several workshops duped their customers by selling fake spare parts and claimed them to be authentic, at the price equalling the authentic parts. It is, nevertheless, a fact that some consumers opted to use fake spare parts such as oil filter, gasket, engine oil and so on, especially when it comes to routine maintenance without considering the safety, quality and environmental concerns.

It can also be seen that people in the car maintenance business are faced with the ‘problem of trust deficit’, or lacking trustworthiness. Auto mechanics are supposed to be responsible and trusted individuals who help others to service and ensure vehicle performance. However, from the information gathered, some of them especially from the general car workshops tend to deceive consumers by telling them the wrong problems, or make up problems in order to incur

extra costs on the service (Simpol, 2010). Consumers also claimed some mechanics had forced them to replace certain spare parts said to be broken and unusable (even though it was actually not), and these mechanics would slap exorbitant prices (Abdul Razak, 2011). Several complaints on misconducts or not treating consumers with good manners and acting rude have also been lodged (Sinar Harian, 2017).

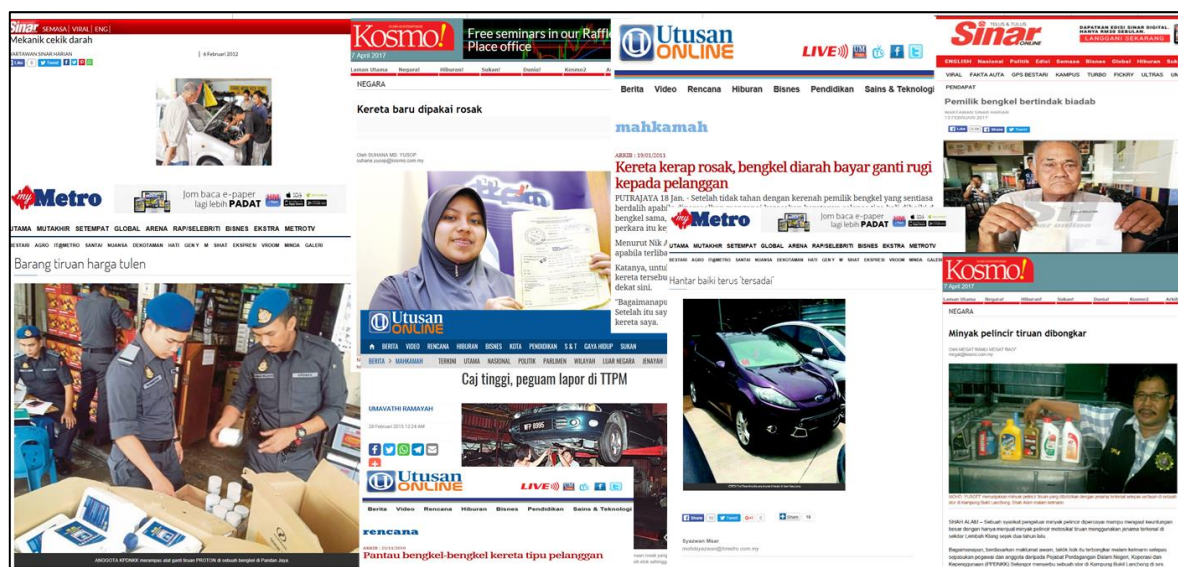


Figure 4: Malaysia's online news relating to automotive consumerism issues

3.2.2 Statistics of complaint regarding to motor vehicle workshop

Based on statistics produced by MDTCC, complaints regarding motor vehicle workshop were among the top ten on the list every month in 2016 (MDTCC, 2016). Furthermore, the number increased progressively, for example, 754 complaints in October 2016, 857 complaints in November 2016 and 947 complaints in December 2016 (MDTCC, 2016). NCCC records, on the other hand, showed an increase of 324 complaints to a total of 3,816 cases in 2015 compared to the previous year with regard to the automobile sector (NCCC, 2015).

NCCC also reported that 2,244 complaints were related to automobiles especially regarding newly purchased cars, with another 1,572 related to automobile workshops (see Figure 5). Of all the complaints received by NCCC from various sectors, the biggest potential loss in ringgit for consumers was in the automobile sector which amounted to MYR 81 million (NCCC, 2015). Further, repair services topped the list out of 1,572 cases related to motor vehicle workshops with 51.1% of the overall number of complaints. Complainants were unhappy with the fact that the vehicles they sent for repair were not fixed properly and took unexpectedly longer time for repair (NCCC, 2015).

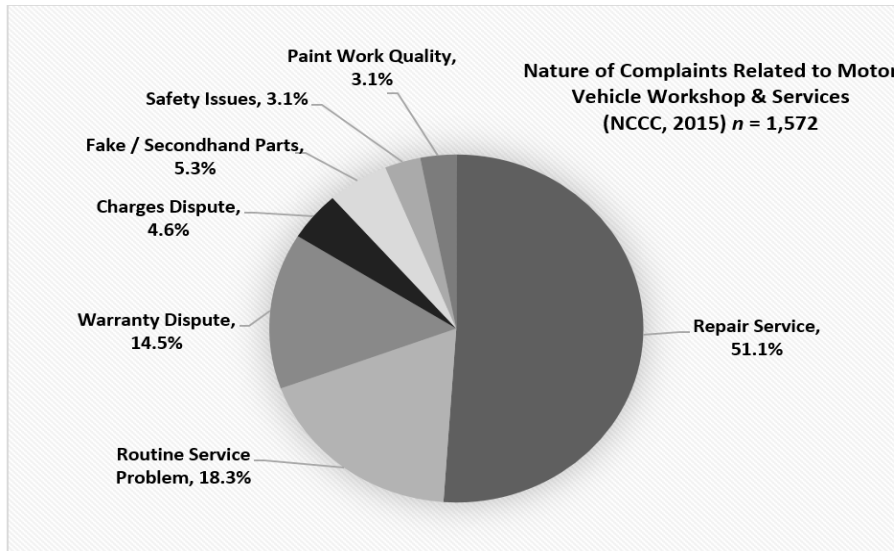


Figure 5: Nature of complaints received by NCCC related to motor vehicle workshop and services

3.2.3 Statistics of complaint regarding parts, accessories and vehicles

Statistics from MDTCC showed there were only 13 cases of fake vehicle spare parts reported in 2016, with loot value of around MYR 35,703 (MDTCC, 2016). With such a small number of cases and loot amount, it can be questioned whether counterfeit or fake spare part is a major issue in car maintenance, or it is due to underreporting. NCCC also reported that it received 2,244 complaints in 2015 with the following breakdown as regards parts, accessories and vehicles: 21.4% complaints were on new car faulty; 11.8% complaints on accessories faulty; 9.1% complaints on defective parts; and 1.6% complaints on ‘airbag not deployed’ (see Figure 6) (NCCC, 2015). Ironically, complaints regarding fake parts attributed only 0.5%.

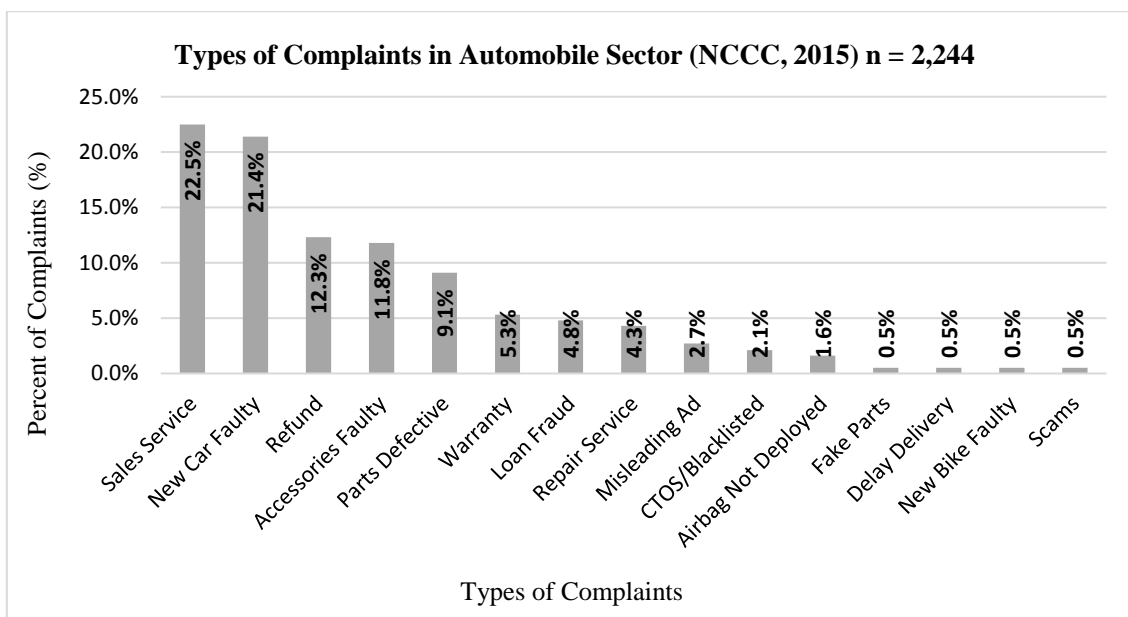


Figure 6: Types of complaints received by NCCC in automobile sector

3.3 Review on Findings of Automotive Ecosystem Study

From a long list of items in the recent survey of ‘Automotive Ecosystem in Malaysia’ involving two different cities, the authors chose to highlight two important results related to this review. Figure 7 explains the findings on where the consumers brought their cars for maintenance work. This finding was based on all cars declared by the respondents – a total of 596 cars from 500 respondents in Klang Valley and 379 cars from 300 respondents in Kuching – in which some of them owned more than one car. It can be seen that the majority of them chose either SCs or general car workshops. A very low percentage of the sampled users perform the maintenance themselves. A similar situation was seen for those who randomly alternate between the available options.

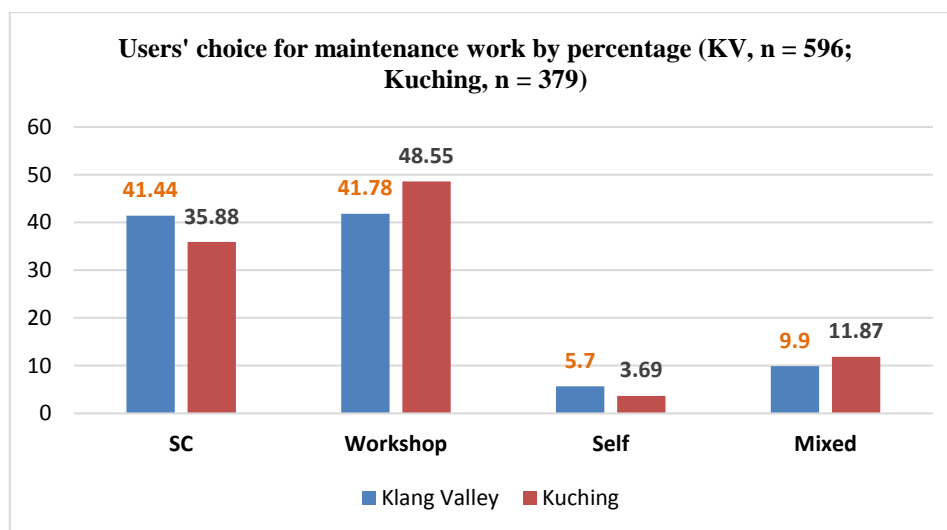


Figure 7: Users’ choice for maintenance work

Moreover, Table 2 compares the respondents’ opinions on car maintenance from the users in both cities, particularly on three different perspectives: (1) scheduled maintenance; (2) performing maintenance at general car workshops; and (3) quality and maintenance or retrofitting behaviours. Results show there was some kind of mutual agreement between the majority of the respondents. It is worth to note that items number 4, 9 and 11 had a combined mean value at the middle, while item number 10 on modifying/retrofitting had the largest disparity by mean difference of 0.9.

Table 2: Car users’ opinions on car maintenance

| Statements (Scale: 1-Very disagree; 2-Disagree; 3-Not sure; 4-Agree; 5-Very agree) | Mean @ Klang Valley (N = 499) | Mean @ Kuching (N = 300) |
|---|----------------------------------|-----------------------------|
| Scheduled maintenance | | |
| 1. The suggested scheduled maintenance by manufacturer must be obeyed in order to maintain car’s performance. | 4.27 | 4.26 |
| 2. The suggested scheduled maintenance by manufacturer meets my expectation to maintain car’s performance. | 4.20 | 4.22 |
| Performing maintenance at general car workshops | | |
| 3. Car owners in this country have many other options other than the authorised service centre (SC). | 4.00 | 3.96 |
| 4. Preventive maintenance work can be done at general car workshops without thinking about the manufacturer warranty. | 3.64 | 3.44 |

| Statements (Scale: 1-Very disagree; 2-Disagree; 3-Not sure; 4-Agree; 5-Very agree) | Mean @ Klang Valley (N = 499) | Mean @ Kuching (N = 300) |
|---|---|------------------------------------|
| 5. Car owners are normally will turn to the general car workshops once the manufacturer warranty ends. | 4.03 | 3.87 |
| 6. Car owners are always attracted to the general car workshops due to their low price/cost. | 4.02 | 3.95 |
| 7. Car owners in this country did not have adequate knowledge so that they always fall victim to cheating at general car workshops. | 4.14 | 3.91 |
| 8. Car owners in this country are oppressed since they always fall victim to cheating at general car workshops. | 4.10 | 3.87 |
| <i>Quality and maintenance/retrofitting behaviour</i> | | |
| 9. Cost will be the main consideration among car owners as compared to the quality of the products. | 3.22 | 3.69 |
| 10. Most car owners will modify/retrofit their cars for better looks. | 3.35 | 4.25 |
| 11. Most car owners will modify/retrofit their cars for better performance. | 3.49 | 3.87 |
| 12. Modification/retrofitting without deep knowledge is a dangerous act. | 4.09 | 3.95 |

4.0 CONCLUSION

This paper has presented a review of the automotive consumerism subject, specifically on car maintenance issues. It can be concluded that:

(i) Laws and legislations (under various ministries) related to consumer protection on car maintenance are considerably adequate to address consumers' rights. They cover all the bases from vehicle manufacturing (including approval) to ownership and de-registration stages (however de-registration is excluded from the scope of this review). For issue and complaints, at least three platforms are available for consumers to have their voices heard, namely the NCCC, MDTCC and also TCCM. Perhaps the consumers can play a bigger and more active role in providing feedbacks and comments on what is happening on the ground as regards automobile consumerism, e.g. through consumer associations, to highlight their dissatisfactions (or compliments) and also in an effort to reduce frauds, inferior services, etc.

(ii) Complaints and dissatisfaction of service quality, overcharged fees and fake parts were frequently reported in the mass media. Statements on dubious and ill-mannered mechanics and service personnel were also common. Unless these grievances are officially reported, the effort to quantify them would be very challenging and beyond the scope of this paper. In brief, with respect to workshop service and quality, the quality of repair attracted the highest number of complaints, while sales service and manufacturing defects were the main issues in parts, accessories and vehicles category. It is also interesting to note that the number of complaints on fake parts was low and was not as serious as perceived by the public. It is recommended that a more comprehensive work in gathering and compiling consumers' complaints is conducted for a more solid and meaningful analysis of the situation.

(iii) In general, there is a similarity in consumers' perception of car maintenance issue in both West and East Malaysia (WM/EM). Most of them agreed on the importance of scheduled maintenance and performing maintenance service at general car workshops. However, consumers were unsure on the statements regarding the quality and maintenance/retrofitting behaviours.

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Appendix I. List of Gazetted United Nations Regulations (UNR) in Malaysia

| Gazette Date | Total UNR | Date into Force | List of UNR (2017 Implemented Series) | Enforcement Authority |
|--------------|-----------|-----------------|--|--------------------------------|
| 1 Jan 1997 | 3 | 1 Jan 1997 | R15 - Emission of gaseous pollutants; R24 - Diesel Smoke; R49 - Diesel Emission | Dept. of Environment (DOE) |
| | | 1 Jan 2008 | R66.02 - Strength of Superstructure (Large Passenger Vehicle) | |
| 19 Nov 2007 | 12 | 1 Jan 2010 | R16.06 - Safety-belts; R30.02 - New Pneumatic Tyres (Passenger Vehicle); R54.00 - New Pneumatic Tyres (Commercial Vehicles); R108.00 - Rethreaded Pneumatic Tyres (Motor Vehicle); R109.00 - Rethreaded Pneumatic Tyres (Commercial Vehicle) | Road Transport Dept. (RTD/JPJ) |
| | | 1 Jan 2012 | R36.03 - Construction of Public Service Vehicles; R48.06 - Installation of Lights (HID); R52.01 - Construction of Small Capacity Public Service Vehicle R80.02 - Seats (Large Passenger Vehicle); R98.01 - Gas-Discharge Headlamps; R99.00 - Gas Discharge Light Source; | |
| 7 Apr 2010 | 4 | 1 Jul 2010 | R97.01 - Vehicle Alarm System; R116.00 - Protection Against Unauthorized Use (Technical Prescription) | Road Transport Dept. (RTD/JPJ) |
| | | 1 Jan 2012 | R18.03 -Protection Against Unauthorized Use (M, N); R62.00 -Protection Against Unauthorized Use (L) | |
| | | | R3.02 -Retro-reflecting devices; R6.01 -Direction indicators; R7.02 -Position, stop and end-outline lamps; R13.11 -Heavy vehicle braking; R13-H.00 -Braking of passenger cars; R14.06 -Safety-belt anchorages; R17.07 -Seats; R25.04 -Head Restraints; R28.00 -Audible warning devices; R39.00 -Speedometer; R43.00 -Safety Glass; R46.02 -Rear-view mirror; R50.00 -Lights (Motor Cycle); R53.01 -Installation of Lights (Motor Cycle); R58.02 -Rear Under-run Protection; R69.01 -Rear Marking Plates for Slow Moving Vehicle; R70.01 -Rear Marking Plates for Heavy and Long Vehicle; R73.01 -Lateral Protection (Goods Vehicle); R75.00 -Tyre (Motor Cycle); R78.03 -Braking (L Category); R79.01 -Steering Equipment; R81.00 -Rear-view Mirrors (Motor Cycle); R90.02 -Replacement Brake Lining Assemblies; R93.00 -Front Under-run Protection; R94.02 -Protection of the occupants in the Event of a Frontal Collision; R95.03 -Protection of the occupants in the Event of a Lateral Collision; R100.00 -Construction of Battery Electric Vehicle; R104.00 -Retro-reflective Markings for Heavy and Long Vehicles; R112.01 -Headlamps (Asymmetrical); R113.00 -Headlamps (Symmetrical) | Road Transport Dept. (RTD/JPJ) |
| 15 Dec 2011 | 34 | 1 Jan 2012 | R40 -Exhaust Emission (Motor Cycle); R41 -Noise (Motor Cycle); R51 -Noise; R83 -Gaseous Pollutants | Dept. of Environment (DOE) |
| 4 Apr 2012 | 1 | 1 Sep 2012 | R22.05 -Protective Helmet & Visor for driver & passenger of motorcycle and moped | Road Transport Dept. (RTD/JPJ) |

| Gazette Date | Total UNR | Date into Force | List of UNR (2017 Implemented Series) | Enforcement Authority |
|---------------------|------------------|------------------------|---|--------------------------------|
| 15 Mac 2013 | 24 | 1 Jan 2015 | R4.00 -Illumination of rear registration plates; R10.04 -Electromagnetic compatibility; R11.03 -Door latches and hinges; R19.04 -Front fog lamps; R21.01 -Interior fittings; R23.00 -Reversing lamps; R26.03 -External projections; R34.02 -Prevention of fire risks; R37.03 -Filament Lamps; R38.00 -Rear Fog Lamps; R44.04 -Child Restraint Systems; R45.01 -Headlamp cleaners; R48.03 -Installation of Lights (Other Lights); R55.01 -Mechanical Coupling; R60.00 -Driver Operated Control (Motorcycle); R61.00 -External Projection; R64.02 -Temporary Spare Tyres; R77.00 -Parking Lamps; R89.00 -Speed Limitation Device; R91.00 -Side-marker Lamps; R101.01 -Emission of Carbon Dioxide and Fuel Consumption (Passenger Car); R117.02 -Tyres with regard to rolling sound emission, wet grip and rolling resistance; R119.01 -Cornering Lamp; R121.00 -Hand Controls, Tell-tales and indications | Road Transport Dept. (RTD/JPJ) |
| 20 Jan 2016 | 23 | 1 Jul 2017 | R9.07 -Noise of three-wheeled vehicles; R12.04 -Steering mechanism; R27.04 -Advance warning triangles; R29.03 -Cabs of commercial vehicles; R47.00 -Exhaust Emission (Moped); R56.00 -Headlamps (Moped); R57.02 -Headlamps (Motor Cycle); R63.01 -Noise (Moped); R65.00 -Special warning lamps; R72.01 -Halogen Headlamps (HS1 for motorcycles); R74.01 -Installation of Light (Moped); R76.01 -Headlamps (Moped); R82.01 -Halogen Headlamps (HS2 for Moped); R85.00 -Measurement of Engine Power; R87.00 -Daytime Running Light; R105.05 -Vehicles for the carriage of dangerous goods; R107.06 -General construction of buses and coaches; R115.00 -LPG and CNG Retrofit System; R123.01 -Adaptive front-lighting systems (AFS); R125.01 -Forward field of vision of drivers; R126.00 -Partitioning systems; R128.00 -Light Emitting Diode (LED) light sources; R129.00 -Enhanced Child Restraint Systems (ECRS) | Road Transport Dept. (RTD/JPJ) |

Appendix II. Manner of Imports for Automotive Component, System or Separate Technical Unit according to Customs (Prohibition of Imports) Order 2017

| No. | Component/System/Separate Technical Unit | Summary Manner of Imports |
|-----|--|---|
| 1. | New pneumatic snow tyres and new rethreaded snow tyres for all type of vehicle (excluding tyres with marking M & S or M + S) | Absolutely prohibited for import. |
| 2. | Used brakes and servo-brakes including used brake pad, and brake lining, for motor vehicles | Prohibited to be imported into Malaysia except under an import license by Ministry of International Trade & Import (MITI) and shall not apply to the specified free zones. |
| 3. | All kind of reusable batteries (accumulators) for motor vehicles | |
| 4. | Used pneumatic tyres and used rethreaded pneumatic tyres, of rubber | Import must be accompanied by a letter of approval issued by or on behalf of SIRIM Berhad. |
| 5. | Safety seat belts | Import must be accompanied by certificate of compliance and the product bearing certification mark either UNECE Regulations (E-mark) of WP29 or Malaysian Standard (MS mark) or any foreign standard specified in Motor Vehicles (Safety Seatbelts) Rules 1978. |
| 6. | New pneumatic tyres and new rethreaded pneumatic tyres, of rubber for certain motor vehicles | Import must be accompanied by certificate of compliance and the product bearing certification mark either UNECE Regulations (E-mark) of WP29 or Malaysian Standard (MS mark) or FMVSS (DOT mark). |
| 7. | Motorcyclist's safety helmets (except as worn by motorcyclists or motorcycle pillion riders) | Import must be accompanied by certificate of compliance and the product bearing certification mark either UNECE Regulations (E-mark) of WP29 or Malaysian Standard (MS mark). |
| 8. | Gas discharge headlamp including gas discharge bulb for the use of all types of motor vehicle | Import must be accompanied by certificate of compliance and the product bearing certification mark of UNECE Regulations (E-mark) of WP29. |
| 9. | New brake lining or brake pad | Import must be accompanied by certificate of compliance and the product bearing certification mark either UNECE Regulations (E-mark) of WP29 or Malaysian Standard (MS mark). |
| 10. | Vehicle alarm system and immobilizer for motor vehicle | Import must be accompanied by certificate of compliance and the product bearing certification mark either UNECE Regulations (E-mark) of WP29 or Malaysian Standard (MS mark). |
| 11. | New seat for passenger vehicle including taxi and bus | Import must be accompanied by certificate of compliance and the product bearing certification mark of UNECE Regulations (E-mark) of WP29. |
| 12. | Speed monitoring device for passenger vehicle consists of more than 9 seats including driver seat | Import must be accompanied by certificate of compliance and the product bearing certification mark of UNECE Regulations (E-mark) of WP29. |