



Sustainability and automobiles:

An online investigation into meanings associated to electric vehicles in automobile forums.

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Dissertation submitted in partial fulfilment of requirements for the MSc in Management with a specialisation in Strategic Marketing, at the Universidade Católica Portuguesa, 08.01.2020.

Title:

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Abstract:

The new decade brings increasing concerns over climate change. Road transport is one of the largest contributors to emissions of greenhouse gases and apprehension is growing as to how the industry can reduce its carbon footprint. One solution is vehicles powered by electric motors. Electric cars, although becoming more popular are still regarded by many motorists as inadequate to meet their needs, while research has been conducted on the perceptions of electric cars there is less research on how they could be marketed to consumers. In the 2030 Ireland will ban new sales of petrol/diesel cars. This thesis aims to study an Irish online community of motorists to understand their views and motivations about electric cars and how these can help improve communication and facilitate adoption. Netnography was considered the most appropriate method of research. Results show that performance is the main consideration of the community, while four sub-themes linked to performance are also observed being sustainability, sentiment, price and self-image. Findings show that although sustainability is a concern for buyers performance attributes are more important in the buying consideration and that many consumers would not be willing to pay a premium for going green. Research suggests that the main focus should be on amplifying the performance qualities of the electric car rather than just emphasising the sustainable attributes. While a substantial section of consumers are unwilling to pay a premium for an electric car which is perceived as performing poorly.

Resumo:

A nova década traz preocupações crescentes com as alterações climáticas. O transporte rodoviário é um dos maiores contribuidores de emissões de gases de efeito estufa e a apreensão sobre como a indústria poderá reduzir a sua pegada de carbono cresceu. Uma solução são os veículos movidos por motores elétricos. Os carros elétricos, embora mais populares, ainda são considerados por muitos motoristas como inadequados às suas necessidades. A pesquisa que tem sido conduzida foca-se na perceção dos carros elétricos, e não em como comercializá-los aos consumidores. Em 2030, a Irlanda vai proibir novas vendas de carros a gasolina/diesel. Esta tese visa estudar uma comunidade irlandesa online de automobilistas para entender suas opiniões e motivações sobre carros elétricos e como estas podem ajudar a melhorar a comunicação e adoção. A netnografia foi considerada o método de pesquisa mais apropriado. Os resultados mostram que o desempenho é a principal consideração da comunidade, enquanto quatro subtemas ligados ao desempenho também são observados sendo sustentabilidade, emoções, preço e autoimagem. Os resultados mostram que, embora a sustentabilidade seja uma preocupação, o desempenho é mais importante no processo de compra e que muitos consumidores não estariam dispostos a pagar um prémio por se tornarem verdes. A pesquisa sugere que o foco deve estar na amplificação das qualidades de desempenho do carro elétrico, em vez de apenas destacar os atributos sustentáveis. Uma parte significativa dos consumidores não está disposta a pagar um prémio por um carro elétrico, uma vez que este é percebido como tendo um mau desempenho.

Keywords:

Sustainability, Green Marketing, New Product Adoption, Netnography, Digital Insights, Electric cars.

Acknowledgements:

Firstly I wish to thank my parents without their love, support and encouragement through some low points none of this would have happened. I would also like to thank the many new friends I have made in Lisbon for the fun times we shared in and outside of school.

Special thanks also to Pedro Oliviera whose brilliant supervision helped shape the vision into a reality.

Last, but not least, I thank God.

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Sustainability and Automobiles.

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Introduction

Problem definition and relevance.

Environmental concerns have gradually been coming under increasing consideration by mainstream media, along with education about environmental issues and the use of policies designed to encourage green behaviours (Karmarkar & Bollinger, 2015). It has been argued by (Menon & Menon, 1997) that it is partly as a result of our consumption patterns, that society and business are confronted with a confluence of factors-including environmental degradation, pollution and climate change; increasing social inequity and poverty.

One sector set to be hit hardest by increasing concern over carbon footprint is the automobile industry, with some EU countries even banning traditional Petrol/Diesel engines by 2030 BBC (2019). Road transport is now one of the largest contributors to emissions of greenhouse gases. While it is also noted that change on the consumer side to actively reduce emissions has been disappointing (Whitmarsh & Kohler, 2010). Although consumers report favourable attitudes towards pro-environmental behaviours they seldom display sustainable actions (White, Habib, & Hardisty, 2019). Research has found that this behaviour can become even more pronounced amongst male identifying members of society (Brough, Gal, Isaac, Ma, & B., 2016). The special bond men have with their cars has been investigated by Diekstra and Kroon (1997) coining the term “the brotherhood motive”(P12) to describe the cars potential to impress and its links to power and dominance held in esteem by many men. This macho image of what a car should be may seem at odds with the more environmentally conscience image of an electric vehicle.

There has been substantial research done on the perceptions of electric vehicles amongst academia. (Egbue & Long, 2012; Larson, Viafara, Parsons & Elias, 2014; Schuitema, Anable, Skippon & Kinnear, 2013). While regarding the possible strategies of marketing electric vehicles although some research has been done on the topic notably (Garling & Thøgersen, 2001) most marketing views on electric vehicles comes from a green marketing or a new

product adoption point of view, rather than specifically addressing particularities regarding marketing electric vehicles (Barbarossa, Beckmann, De Pelsmacker, Moons & Gwozdz, 2015; Larson, Viafara, Parsons & Elias, 2014). At the same time the academic literature surrounding the perception of electric vehicles has been qualitatively gathered through traditional questionnaires, focus groups and interviews, seeming to ignore the vast wealth of information available direct and unfiltered from the consumer through an online space/forum.

Accordingly, this dissertation strives to fill the gap in the academic literature by utilising netnographic techniques to garner more in-depth qualitative understanding of electric powered motor vehicles and aid communication of these types of vehicles as we move headlong towards a society that will increasingly demand and indeed need more sustainable forms of personal transport. Given that there are significant communities of consumers online with a prevailing focus on vehicles, netnography is an important research method for garnering data for the research.

Objective and Research Questions.

The purpose of this dissertation is to contribute to and increase the understanding of the meanings associated with electric vehicles amongst car enthusiasts within automobile forums, and thus gain greater insight into how a firm can communicate better regarding electric motors, and the various managerial implications this will garner.

In keeping with a qualitative research path, a netnographic study is created to answer the below research questions without the researcher being constrained by geographic location and using online communities as a tool in this regard.

RQ1:

What are the main views and motivations of consumers in automobile forums on electric motors/vehicles?

RQ2:

How can these meanings help expedite communication on electric motors and facilitate adoption?

Literature Review

This chapter aims to provide an overview of the academic research to date in regard to motivations of consumers surrounding electric vehicles and their perceptions. The marketing research done so far on how best to communicate a positive message for electric vehicles, along with an examination of green marketing, new product adoption process and sustainability.

Marketing of electric vehicles

Replacing traditional modes of vehicles with ones powered by electricity can help to reduce pollution and greenhouse emissions. However, as Garling and Thøgersen (2001) note societal benefits come at high cost to the owner of electric vehicle in terms of price, driving range, speed and acceleration. Whilst the authors also consider the lack of infrastructure for recharging, commenting that “such a product, hardly sells itself to a consumer” (Garling & Thøgersen, 2001, p. 53) Research has also argued that introducing new technologies into the mass-produced automobile industry has consistently been a difficult endeavour (Ealey & Glenn, 1999).

The case has been made by Garling and Thøgersen (2001) that the USP of the electric vehicle is that it will have less of a negative impact on the welfare of other people. They maintain that because of the high price and at the time lack of social norm, that marketing electric vehicles would be an uphill battle with one major mitigating factor, “That conditions will change radically in favour of EV’s in the long run” (Garling & Thøgersen, 2001, p. 58)

The idea that the high price of electric vehicles muted by Garling and Thøgersen (2001) was further explored by Larsons, Viafara, Parsons & Elias (2014). They observed in their study on Canadian perceptions of electric vehicles that “consumers are unwilling to pay substantial premiums for EV’s” (Larson, Viafara, Parsons, & Elias, 2014, p. 311). While they also make an interesting observation that marketing focus has been too much on technology and not enough on consumers, noting that the old adage of customer first seems to have gone a miss (Larson, Viafara, Parsons, & Elias, 2014).

A great deal of uncertainty among motoring consumers is noted by the literature (Egbue & Long, 2012; Schuitema, Anable, Skippon & Kinnear, 2013) Consumers resist new technology that they consider alien or unproved, while again cost and performance has more weight in the eyes of the consumer than sustainability (Egbue & Long, 2012) Again it is

observed that consumers are “unlikely to compromise on traditional product attributes such as price, quality and performance” (Ginsberg & Bloom, 2004, p. 80).

Green Marketing

Marketing has a critical role to play in sustainable development such as electric vehicles which will be appreciated only when through sustainable marketing it satisfies the needs of now without jeopardizing the capacity of future generations to meet their own needs (Winston & Mintu-Wimsatt, 2013)

A solution proposed by several academics to the problem of marketing electric vehicles is green marketing.

A definition of green marketing given by (Polonsky, 1994, p. 2) is as follows.

“Green or environmental marketing consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment.”

When considering the legitimacy of green marketing an important element is touched upon by (Cronin, Smith, Gleim, Ramirez, & Martinez, 2011) who contend that to encourage firms to employ green marketing strategies there must be financial incentives involved for the firm or else they will decide not to engage in such a strategy. On the issue of whether green strategies can lead to greater profits for a company the research is divided. Some state that it is financially negative for a business to adopt such as Ullmann who dispute that the extra costs impact negatively on the firms bottom line (as cited in Cronin, Smith, Gleim, Ramirez & Martinez, 2011). However, on the other side of the debate it has been maintained that application costs are minimal, and the benefit of improved morale and productivity negates any additional costs that can occur as asserted by Parket and Elbert (as cited in Cronin, Smith, Gleim, Ramirez & Martinez, 2011).

Further expanding on the above argument that there must be financial incentives for a firm to initiate green marketing strategies it is asserted that there are four more issues that need to be addressed to consider green marketing’s legitimacy. First being the drivers of sustainability e.g. public pressures, regulatory forces etc, second being management of sustainability the

third being the marketing aspects of sustainability and finally the consumer aspects of sustainability such as willingness to pay for sustainable products (Leonidou, Katsikeas, & Morgan, 2013).

It is strongly contended by (Menon & Menon, 1997) that environmentally based marketing programs should be evaluated for efficacy over several aspects of consumer response and business performance. According to (Menon & Menon, 1997) these revolve around green marketing and the firm's corporate reputation, and the moderating effect of the industry involved.

There is no one size fits all when it comes to green marketing with some situations benefitting from a lean green approach, characterised by being relatively passive and silent to an aggressive and visible approach (Ginsberg & Bloom, 2004). While the potential for segmenting the market is also explored asserting that "to respond to consumers varying degrees of environmental concern, marketers can segment the market into different shades of green" (Ginsberg & Bloom, 2004, p. 80)

Not all voices are in favour of green marketing when it comes to making environmental products more appealing to the average Joe consumer. It is contended that Green Marketing needs to satisfy both improved environmental performance and customer satisfaction (Ottman, Stafford, & Hartman, 2006). They argue that an over emphasis on the former over the latter can be termed green marketing mytopia, or short sightedness. They also contend that the research shows many green products fail because of marketers "myopic" focus on the products greenness over the broader expectations of consumers, while also contending Green Marketing must appear grass roots driven and humorous without sounding preachy. While it is suggested that it is difficult to find evidence that companies green marketing blueprint was undertaken with extensive market research into the plethora of consumer wants, needs and beliefs (Peattie & Crane, 2005)

Research has also argued that there is a frequent connection between green behaviour and attitudes and femininity (Brough, Gal, Isaac, Ma, & B., 2016). Females demonstrate greater worry and an eagerness to change and help the environment (Dietz, Kalof & Stern, 2002; Zelezny, Poh-Pheng & Aldrich, 2000). In contrast Tiller argues in his work that men feel less remorseful about living a non-green lifestyle (as cited in Brough, Gal, Isaac, Ma & B., 2016)

New Product Adoption

As many perspective buyers of electric vehicles will be coming to the electric car market for the first time from the traditional automobile market it is useful to understand the academic research behind how consumers make decisions when purchasing a new type of product for the first time. In fact “understanding whether and why consumers will adopt innovations is critical for firms developing and marketing new products and services” (Claudy, Garcia, & Aidan, 2015, p. 528). Studies have also shown that consumers within the automobile industry can be more inclined to resist technological change depending on their country of origin “In Europe, for example, resistance to automatic transmissions is only now weakening- decades after the US embraced them as standard equipment” (Ealey & Glenn, 1999, p. 6)

The earliest studies of the adoption process and the innovating consumer characterise the groundbreaking consumer as a sort of rebel (Barnett, 1941). This viewpoint changed in the seventies with the thought frame for consumer behaviour research turning more towards the idea that innovators were on the contrary integrated in society rather than disgruntled misfits (Boone, 1970; Painter & Pinegar, 1971). An observation given for these different observations concluded by the research is given when according to Dickerson and Gentry (1983) “an explanation for these different findings is that the adoption processes under investigation differed I.E. the products under investigation were quite disparate” (p 225).

In their studies on adoption processes both Robertson and Rogers and Shoemaker found the adoption could be positively connected to a products relative advantage, compatibility and divisibility, but was negatively related when linked to complexity and cost (as cited in Dickerson & Gentry, 1983). When profiling an adopter a number of the same traits are common across demographics, that is that the adopter of a new product or innovated original product tends to be highly educated, high income earners with higher occupational status (Dickerson & Gentry, 1983; Labay & Kinnear, 1998) and that the characteristics of the adopter is somewhat a function of the characteristics of the innovation itself (Dickerson & Gentry, 1983) along with an individual’s inherent innovative personality and predisposition towards innovations (Bayus & Mason, 2003). We can designate this train of thought as the adoption perspective or the adoption diffusion paradigm, which looks at the development of an innovative product to reach a critical mass of adopters diffusion is fast forwarded and the innovation is considered successful (Vijay, Muller, & Bass, 1990).

The theory of diffusion of innovation was first voiced historically by Tarde a French Sociologist with his original S shaped curve (Towes, 2003). Later on the adopter categories were added by

(Ryan & Neal, 1943) which have later been used in the prevailing theory disseminated by (Rogers Everett, 1995). In simple terms, the diffusion of innovation deals with the mechanism that occurs when consumers adopt a new idea or product. It is stressed that in most cases an initial few are receptive to the new idea and adopt its use. These early innovators engage in word of mouth, more people become relaxed to the idea of the product culminating in the development of critical mass (Rogers Everett, 1995). The idea of a turning point in new product adoption or critical mass is also seen in the automobile industry with (Ealey & Glenn, 1999) commenting that “once a technology is accepted, it often sweeps the market much more rapidly than many experts expected” (P6).

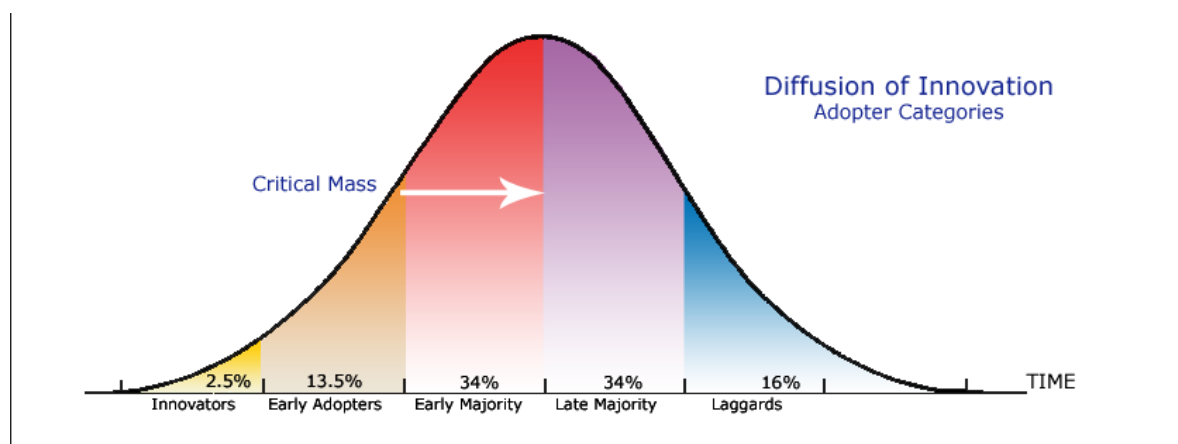


Figure 1. Diffusion of Innovation bell curve.

When understanding new product adoption, it is also important to understand categorisation and stereotyping that can occur on the part of the consumer. Studies in consumer and cognitive psychology infer that a respective consumer employs one of two different processes in assessing a new stimulus category or piecemeal based (Hadjimarcou & Hu, 1999). Piecemeal processing Sujan states, implies that a consumer assesses an object by piecing together the assessments of individual product traits (as cited in Hadjimarcou & Hu, 1999). This contrasts with a category-based approach which “involves the evaluation of an incoming stimulus on the basis of existing memory structures or Schemata” (Hadjimarcou & Hu, 1999, p. 405). It is asserted that categorisation is an important cognitive capacity that permeates all dimensions of human mental functioning (Weiss & Johar, 2013). This categorisation is explained as consumers

classifying targets, mainly people or products in their environment in relation to reference categories and then judge the targets under the conditions of these categories (Sujan & Dekleva, 1987). Logically the target judgement is dependent on the reference category used by the consumer and on how these people label the target relative to that category (Foroni & Rothbart, 2011; Herr, Sherman & Fazio, 1983). Studies have discovered that people often use themselves as a reference category for understanding, segmenting and organising their surroundings (Rodgers, Kuiper, & Kirker, 1977). With research showing that consumers process information that is conforming with the self more easily than with inconsistent information (Verrochi, Williams, & Morales, 2019)

Consumers arrange in-groups as “us” judging them in correlation with the way these people see and judge themselves but segregate out-groups “them” and form opinions of them in opposition to themselves (Cadinou & Rothbart, 1996). This insight from the prior research that consumers use themselves to divide and classify human targets inspired more recent research to see if consumers used the self as a reference to categorise for non-human targets such as a product (Weiss & Johar, 2013). This idea was explored by Weiss and Johar (2013) further, their results showed that “people may use the personal self to classify objects with respect to the self and to maintain a subjective notion of me” (Weiss & Johar, 2013, p. 199).

As an extension of humans seeing parts of their own sense of selves in the objects that they own, studies have shown human males to have a significant dynamic between their cars and how they wish the world to perceive them (Diekstra & Kroon, 1997). It is argued that the car is a widely available means of exercising power, has become a symbol for autonomy and has the potential to impress (Diekstra & Kroon, 1997). This ties in with further studies showing a tendency for males to favour objects which are representative of real or desired power (Wallendorf & Arnould, 1988). The above research drawn from Diekstra and Kroon becomes interesting when we look at the findings from Arron Brough et al on their work on is eco-friendly unmanly, they argue that a man is less likely to engage in sustainable behaviour can be “partially explained by an association between green behaviour and femininity that threatens the gender identity of men” (Brough, Gal, Isaac, Ma, & B., 2016, p. 579).

Research Methodology

The purpose of this section is to clarify the methods employed to gather and assess the data used to answer the research questions as mentioned earlier along with the main pros and cons of the methodology used. An explanation is given to the process behind picking the chosen online community along with an illustration of the data collection process.

Introduction to Netnography

According to Kozinets (2015) netnography can be described as “a form of ethnographic research that has been adapted to the unique contingencies of technologically mediated social interaction” (Kozinets, 2015, p. 1).

It is contended that ethnography is not one data collection method but rather a style of research that is differentiated by its goals which are to discern social meanings and the actions of people in a particular field or setting. The approach involves close association with and indeed often participation within the given setting (Brewer, 2000). Ethnography has its roots in twentieth century British social anthropology, with anthropologists employing close acquaintance methods when studying pre-industrial groups and cultures that the British had colonised (Brewer, 2000). However, with more people now spending a significant amount of their time connected to the internet, the popularity of netnography has increased rapidly (Heinonen & Medberg, 2018), while 70% of the world’s youth population (15-24) was connected to the internet in 2017. This has allowed for this demographic to be very comfortable online accessing the internet via their smartphones where they engage in shopping, gaming and information sharing (Kumar, 2018). Thus, netnography has become increasingly more recognised in the field of business as an established methodology (Costello, McDermott, & Wallace, 2017). A concise and useful methodological term for netnography is that it is ethnography for the internet (Hine, 2015). Added benefits of netnography has also been noted by research such as being unobtrusive and more natural compared to more traditional ethnography (Pollock, Luttgens, & Piller, 2014), along with being faster and more cost-effective (De Valck, Van Bruggen, & Wierenga, 2009).

However, in contrast to the benefits highlighted above some limitations within the netnography method have also been suggested by research which warrant mentioning. Some question the quality and credibility of the data that is gathered (Xun & Reynolds, 2010), while it is also contended that the methodology can generalise its findings to consumers outside the online community studied (Kozinets, 2002), makes it difficult to understand demographics (Mkono,

2013) and it is debated whether the research method is more effective if done overtly or covertly (Kozinets 2002).

Online Community Selection.

For the purpose of this research the online community backroads.ie was chosen as the setting for this study. This site is an automobile forum for car enthusiasts in Ireland and there are several reasons why the author chose this community for observation. These include the country of origin, being an Irish site many in this community will have to deal with the Irish government ban on new petrol and diesel engines come 2030 while there is considerable traffic of posts and threads within the community around 200/300 posts a day. The topics of conversation range from discussions about new and existing cars on the market in Ireland, infrastructure quality, car performance and price, general complaints about other road users and funny posts designed to gain the appreciation of other forum users such as car memes.

The forum is especially relevant for this research as it has several threads dedicated to the topic of sustainable driving and electric cars in Ireland. It has also been stated that there are four distinct types of members of an online community differentiated by their involvement in the forum these being “tourists”, “minglers”, “devotees” and “insiders” (Kozinets, 1999). The forum allows for better recognition of the types with rankings given within the community based on number of posts and interaction made by the members. For instance some are classified as senior members while others are junior members. Research has also contended that it is the devotees and insiders who represent the most important targets from a marketing strategy perspective (Kozinets, 1999).

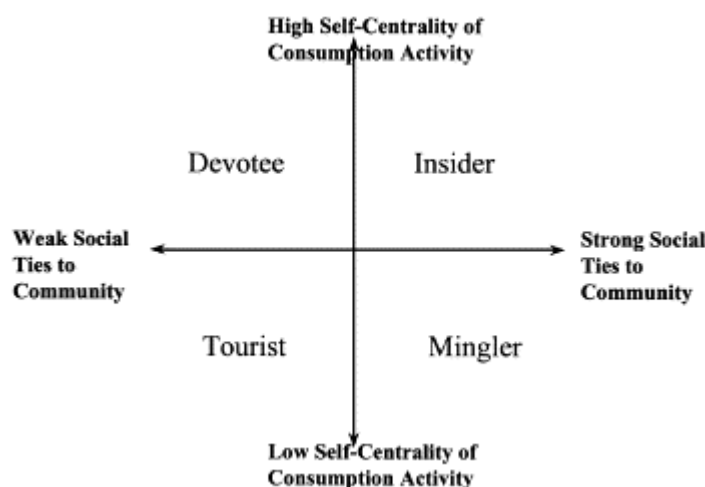


Figure 2: Types of virtual community of consumption member (Kozinets 1999)

Research Planning

The starting point of the research was to define the research questions that were to be used during the course of the study. With this identified it would then be possible to begin the process of choosing an appropriate online community to assess. This search was conducted on the internet via the search engines Google and Bing along with social media platforms Facebook, Instagram, YouTube and Reddit in order to try and find relevant online communities around the topic of sustainability in automobiles. Keywords and terms used in the search include “driving”, “Cars”, “electric motors”, “car enthusiasts”, “engines”, “Tesla” and “Car forums Ireland”. Online engagement regarding traditional vehicles such as trucks and cars is vast and exhausting with many forums, Reddit threads and YouTube conversations available across the web, while participation in content regarding specifically electric motors though popular is less extensive. The author wishes to explore the opinion of Irish car users in relation to the upcoming ban on traditional vehicles as explained previously, thus online communities specific to Ireland were also searched for which yielded a smaller but equally as engaged number of communities. It was decided to focus the research on one community based within Ireland called “backroads.ie” due to the number of active participants and sections of the forum specifically dedicated to sustainable cars providing insight into Irish road users views on electric cars as they move towards the government ban on petrol and diesel engines in 2030. The chosen forum meets the criteria for the communities being studied as it is “relevant, active, interactive, substantial, heterogeneous, data-rich and experientially satisfying” (Kozinets, 2015, p. 176). Focusing on one online community from one country provides a more detailed examination specifically of Irish road users electric automobile thematic as they move towards 2030.

Data Collection

Collection of archival data

I will now describe the archival data process which was used to develop the thematic analysis used in the proceeding chapter. Posts were read for a total of nine weeks from the 7/10/19 to the 9/12/19 all from the motoring forum backroads.ie. For the sake of manageability the author has concentrated primarily on the section of the forum for discussing electric, hybrid and alternatively fuelled vehicles entitled “leaf him, he’s not worth it”. In addition to the aforementioned section of the forum some threads were also read in isolation in different areas

of the forum as they related to the topic of electric cars. In total 129 threads were read with over 2000 individual postings analysed written between 2016 and 2019. The main body of the comments were text postings although some were also what can be described as hybrid posts containing both a visual and text element, a video accompanied by some text for example.

Member Checks.

Member checks are the procedure in which all or some of the researchers findings are related to the people or group studied for their feedback and to solicitate their opinion (Kozinets, 2002). These checks allow for error checking and the implementation of ethical standards by ensuring the presentation of findings to the people that have been observed in order to affirm the correct interpretation of the collected results. It also provides the opportunity for the members of the forum to volunteer further information which may be simulated and also helps to prevent false information being presented as reliable research. They also allow the author to gain more specific consumer insight into meanings and assumptions made by the author on some posts.

For the purpose of this thesis one member check was conducted with the senior moderator of the electric, hybrid and alternatively fuelled section of the forum. The senior moderator informed that he discussed the findings with some of the more junior moderators of the group but preferred that the information go through him in order to reach them. The member consulted can be described as an insider using (Kozinets, 1999) criteria for segmenting member types in virtual communities. This is one of the types mentioned earlier in the chapter which are considered of most relevance from a marketing perspective, as they have strong social ties to the community and have a high self-centrality of social activity

Ensuring Ethical Standards.

The researcher has introduced himself to the community under observation clarifying the methodology used and the research objectives. The selected online community is a semi-closed forum with all posts being open to be viewed by the general public but you need to be a member in order to write a post and take part in the online conversation. In order to protect online users privacy the nicknames users identify themselves by have been removed from the study and are instead identified as “user x” while the collected insights have been stored on a password controlled USB stick.

Research representation and analysis.

The foundation of the netnography method chosen is in grounded theory which is described by Glaser and Strauss (1967) as being a qualitative research method which utilises a set of systematic procedures to attain inductively grounded theory about a circumstance. Following on from this the researcher has catalogued insights from the data deriving theories and implications from them.

The netnography was conducted via the manual coding method as this was the most suitable given the conditions of this study however semi-automatic and algorithmic software can also be used (Kozinets, 2015). Indeed it is contended that the manual coding method allows for more creativity and a closeness with the data and cultural experience that algorithmic data mining would not provide (Kozinets, 2015)

For the identification of the codes, categories and themes the author considered the most relevant and repeated words in order to facilitate a code list for the framework. The coded words of which there was a total of 56 were used to create categories which described groups of the collected codes. These categories were subsequently organised into broader themes which represent the highest level of thinking and generate theory for the analysis, as a result of the above process a thematic network was produced and is represented in appendix 1.

Empirical Analysis: Ethnographic Themes

The following chapter will thoroughly examine the collected data from the 129 threads studied along with a qualitative analysis of the results. This will be done in the form of a netnography procedure within a thematic analysis and the culminating advancement of the grounded theory. A representation of the thematic network created can be found in appendix 1.

Performance

The first theme that comes to the fore during the analysis is that of performance. Many threads within the forum focus on the performance aspect of an electric car from the start or naturally find their way to this topic of conversation as the thread matures. Range¹ was coded and categorised within this theme and is a consistent concern among the members of the forum. In a thread entitled “what would it take for you to go electric?” 27% of the 52 responses to date have mentioned range as either a critical or contributing factor in whether or not they would

¹ Range refers to the distance an electric car can travel before needing to be recharged. Much the same as how many miles a full tank of petrol can go in traditionally fuelled cars.

“go electric”. Concerns about range often went hand in hand with queries over whether the warranty being offered by the manufacturer would be enough. User 1 sums up this general sentiment best when he responds to the question of what it would take to switch with “When battery replacement is cheaper, or they can last 10 years and give me at least 3 years warranty while still maintaining significant range (excess of 150 km)”. All traditional attributes consumers assess automobiles with, this is consistent with the literature that asserts that although consumers may wish to be more sustainable they are unlikely to compromise they are unlikely to compromise traditional product attributes like performance in order to be more sustainable (Ginsberg & Bloom, 2004).

Performance is the main theme identified when interpreting the archival data. However, four more sub-themes can also be identified through the thematic network which have both a positive and adverse effect on the perceived associations of performance. The sub-themes are,

1. Sustainability
2. Price
3. Sentiment
4. Self-image

The above 4 sub- themes will be reported on separately in order to gauge how the community members performance association is affected by each.

Sustainability

Environmental issues are to the forefront in many threads concerning the topic of electric cars. The views of the users on this issue are quite disparate ranging from concern to ridicule to apathy towards the subject. How much Ireland should be doing to make itself more environmentally sustainable is a hotly debated topic, one user believes that Ireland should do “nothing as we are so insignificantly small” while others believe electric vehicles are about “doing their bit for the environment”.

Some digress specifically from the topic of electric vehicles and bring in broader topics of eco-awareness into the online conversations such as the damage beef farming is doing to the environment and that electric car drivers should also stop eating meat “if electric cars are being sold as green alternatives and your willing to buy into it why not stop eating beef?”.

Community members also discuss topics such as bio waste facilities as an effective and environmentally friendly way to increase the networks electric capacity, Windmill planning

permission² and national clean air strategies. This sentiment is countered by others who believe that the moral panic is leading to a form of “dystopian nightmare, eco-scapegoating” or as one thread describes it as simply “Hippies”.

It has been observed by the author that the community members who seem to be more eco-aware in their posts to the forum are the ones who accentuate the performance of electric vehicles, while the members who seem to take the dystopian nightmare perspective on the emergent eco-culture are less inclined to believe electric vehicles perform well.

The above point is in keeping with the research as discussed earlier in the dissertation where consumers use the personal self to arrange objects in respect to the self and to maintain their view of themselves and that they process information more easily that conforms with the self-more easily than with inconsistent information. Members of the community appear to be in two different tribes when it comes to the topic of electric vehicles which all associate with environmental sustainability (Verochi, Williams & Morales, 2019, Weiss & Johar, 2013). The members of the community organising themselves into groups judging the electric vehicles in correlation with the way these members see and judge themselves, but segregating out-groups “them” and form opinions of them in opposition to themselves (Cadinou & Rothbart, 1996).

Price

One does not need to read the threads concerning electric cars for long to realise that price is an important consideration by the users. It is acknowledged by even the most converted electric car enthusiasts within the community that the price is too high for electric cars with the cheapest coming in at the €30,000 mark.

This seems to be a source of conflict within the forum and theories about governments trying to make driving for the elite abound with user 2 stating that they believed “That driving is about to become the preserve of the wealthy again with small and cheap cars not being economical to produce anymore” user 2 concludes that they believe cities will become the preserve of the well healed. Others dismissed this idea but still believed that the price was too expensive given the lack of range and questionable battery life. It is reasonable to state looking at the users reaction to the price of electric vehicles that the perceived customer value does not fall in the members zone of fairness, which is where the customers perceive a fairness between the quality (performance) and the price or sacrifice (Setijono & Dahlgaard, 2007). The high price of electric

² This refers to an Irish civic policy of needing permission to build from local authorities.

vehicles has led to a negative perception of the cars as not offering enough quality to justify the price tag. All of this is despite users being largely positive on aspects of the driving experience of these vehicles such as the fast acceleration and the sharp handling. It is interesting to observe that for some members however price did not seem to be a problem as they were willing to spend money for the sake of the environment, while some rationalised the high initial price tags by stating that it would be cheaper in the long run without having to spend on high fuel prices at the gas station and the reduced road tax that they would be eligible to pay. These views that the high price is acceptable as the electric vehicles benefit the environment is a minority viewpoint with most balking at the price.

Many of the issues pointed out by the members of the community against buying an electric car reflect what the academic literature for marketing electric cars says, with Garling and Thøgersen (2001) observing that the societal benefits come at high cost to electric vehicle owners due to their high cost and lack of driving range before needing to be recharged. The members concern about price reflect the observation that “consumers are unwilling to pay substantial premiums for EV’s” (Larson, Viafara, Parsons & Elias, 2014, P 311). Many of the views correlate with Egbue and Long (2012) research that the cost and performance is more important to the consumer than sustainability.

Sentiment

A lot of the members of the forum conjure up descriptive and emotive messages to describe their cars, while many hark back to a time when engine sounds were loud and aggressive compared to the more silent electric vehicles. User 3 when answering to a thread with the title of “where are all the vroom vroom sounds” spoke about engine noises, induction sounds with what they missed the most being the roar of the tyres.

Components within the community seem very strongly connected with the sensory when deciding on their choice of car, with the sounds that they make being closely aligned with what the driver believes is their driving experience. It is alluded to by user 4 that they need to have a “bond” with their car and that “an electric (Car) holds no emotional attachment for me whatsoever”. Converting old cars is also seen to make electric cars cool according to some users. This fits with a lot of members complaining that the “futuristic appearance” of the car is not what a car should look like.

This sentimental theme that runs throughout discussions around electric vehicles shows users have product attachment to what they consider to be “real” cars. It has been proposed that determinants of product attachment are utility and appearance which may explain why sentimental attitudes is prevalent amongst member discourse, as they believe that non electric cars perform better and have a greater customer value proposition than their electric counterparts. Thus, creating product attachment to the more tried and tested petrol and diesel cars (Mugge, Hendrick, & Schoormans, 2010).

Often this sort of discourse amongst the group is accompanied by imagery of classic petrol and diesel cars with remarks such as “I’ll buy electric cars when they look as cool as this”, prompting others to respond in kind with idealised versions of what any future electric car they would own should look like based on models of classic cars. These emotions that are on display by the community show a strong correlation between the group and what they consider reliable familiar cars. The literature has pointed out that consumers within the motoring industry resist new technology they consider to be unproven or strange (Egbue, & Long, 2012, Schuitema, Anable, Skippon, & Kinnear, 2013). Consumers in the community seem to be using sentimentality in order to rationalise their distrust of the unfamiliar electric vehicle with what is reliable and familiar to them.

Self-Image

The road users that take part in the online community have a very keen sense on how they believe they are perceived by society based upon what they drive. They seem to either see their car as an object they are in some sort of informal relationship with as was the case with user 4 who feels the need for a “bond with the car”, to others who see the car as an extension of themselves.

User 5 considers electric vehicles to be “uninteresting and boring” and is concerned about what he might look like driving one on the streets while the image of electric cars being for the elite and unaffordable is also rife throughout. Concerns about being hypocritical also come to the fore with user 6 questioning the integrity of electric car owners’ green motives by contending that “the only reason they are being bought is for cheap motoring nothing to do with being environmentally friendly”. This is in relation to the subsidies in Ireland for cheap charging paid for by the government, which the user suggests the other users with electric cars are sponging off.

Other members claim to have seen electric car users being harassed by other road users with electric cars being boxed in by Jeeps making it difficult to leave a parking space without scratching. More assert that the damage done by the Lithium mining for the batteries can be as destructive to the planet as emissions from regular cars.

One of the biggest fears that seems to permeate the sustainable section of the forum is to be seen as a jerk or a “jerk that drives a Tesla”. The Tesla brand garners a jump in viewing numbers whenever it is mentioned in a thread title and quite often divides opinion. Some view it as a good car if slightly pricey, while more associate the brand with drivers of a ruder persuasion.

Members tend to be attracted to excitement, with one thread even titled with “will EV’s ever be exciting? I’m not sure”. They are concerned about the fun they would have in such vehicles and if everyone would be driving the same undifferentiated car, which as user 7 puts it would consist of “the same washing machine motors, some battery config, no gearbox, with the same torque vectoring”. This members bemoaning of the similarity of identical design highlights their concern of not being able to differentiate themselves from their peers with the car anymore.

The rejection by some participants in the community of electric vehicles as being elitist and being for jerks touches on a more subtle societal cue, that of social class. As the forum is based in Ireland some elements of the British class system that distinguishes the working class from the upper echelons of society are prevalent in Ireland as a legacy of British colonialism.

In regard to this self-image fixation that is present amongst many members of the community and how electric vehicles may make the drivers seem less than they were beforehand it is interesting to note that the majority of the forum members are male. Scholarly research has shown that there is a propensity for males to enjoy objects which are indicative of real or desired power (Wallendorf & Arnould, 1988). Given terms describing electric cars within the community revolve around how exciting they are or the lack thereof, may support the view in the literature that men do not undertake in sustainable behaviour because they view sustainable behaviour such as owning an electric vehicle as being feminine and a threat to the gender identity of men (Brough, Gal, Isaac, Ma & B, 2016).

Summary

To surmise the above thematic analysis of the backroads.ie online community, performance is the central theme that appears most often amongst the regular chat when threads concerning electric vehicles are discussed. Concerns about top speed, car battery shelf life and driving range are pronounced throughout the conversations. Four sub themes which are distinct but all tie in with performance are observed playing out amongst the community.

1. Sustainability: Is a sub-theme to performance as it is noticed that members of the community who could be described as climate change deniers have a poorer opinion of how electric cars perform, compared to those who believe they need to be more sustainable underlining the positive aspects of the cars performance.
2. Price: Consumers within the forum complain on numerous occasions about the high cost of purchasing an electric car. It is observed that members seem to not regard the performance of the cars equates with the price being charged, known as perceived customer value.
3. Sentiment: Users have become attached to their original products, in this case regular petrol and diesel run cars. Some believe these cars perform better than their electric counterparts and utility is considered a source of product attachment.
4. Self-image: As community participants describe the relationship between themselves and their car as a bond, the literature has contended that cars have become in a way a symbol of power. It can be deducted that electric cars which do not meet performance criteria may be perceived holding less symbolic power than more conventional cars.

Lastly it is worth again mentioning the undertones of class distinction that works its way into the member conversations. Fears of being perceived as being elitist for driving an electric car, and thus considered to have a snobby personality bring an interesting extra dimension to the managerial implications that we will discuss.

Conclusions & Managerial Implications.

This section intends to complete the netnographic analysis by answering the research questions that were proposed at the start of this thesis along with outlining the main implications for management. Suggestions for future research are also mentioned.

A qualitative research study was initiated to explore attitudes of an active online car forum towards electric cars with the view of helping to expedite communication and the adoption of the vehicles for a more successful adoption of Irish road users to electric motors as Ireland moves towards a ban on petrol and diesel cars by 2030.

The data that has been interpreted in this process has a central theme of performance with four sub-themes that all relate to performance. These sub-themes being that of sustainability, price, sentiment and self-image. Some interesting findings regarding gender identity and social class are also evident within the data that coincide with the literature review that was undertaken earlier in this endeavour.

Each research question will now be explored individually to see what implications the thematic analysis of the data collected will have on the subjects.

RQ1: What are the main views and motivations of consumers in automobile forums on electric motors/vehicles?

It can be seen throughout the data collected that performance is king. Many users view on electric cars within the community are concerned with how the car will function when it is on the road, these views range from largely positive to opinions that are less than convinced by the authenticity of electric cars as a viable alternative to traditionally fuelled motors. Indeed, much of the discussion that was analysed corroborates the research of Ginsberg and Bloom (2004) who contend that although consumers may endeavour to be more sustainable, they are unwilling to sacrifice traditional product attributes like performance in order to be more sustainable.

Hot topics for discussion fluctuate from the range the car can travel before needing to be recharged, the warranty offered by the car manufacturers and being able to simply go as fast as a petrol- or diesel-powered car. Performance permeates and is linked to all the other major topics that are discussed within the threads. It is noted in the thematic analysis that there seems to be a connection between those who do not perceive climate change to be as much of a threat as is being portrayed by scientists and having nuanced opinions on electric cars performing

poorly. Vice versa this also is the case with members of the community whom believe that electric cars are as good as any other type of car also believing that road users need to become more sustainable in order to better preserve the planet. It has been illustrated by Cadinou and Rothbart (1996) that consumers will organise themselves into groups based on how these consumers see and judge themselves segregating those consumers and by extension products that they find different from how they perceive themselves. This behaviour is also noted by Verochi, Williams and Morales (2019) where consumers can process information more easily that conforms with how they see themselves.

The perceived customer value is also a sticky point within the opinion of the community members on electric cars, many claim that there are hardly any reasonably priced cars within the sector. The mixed views on the performance of these vehicles on the road correlates with the unwillingness to pay a premium for them just based on the sustainability of the cars. The car essentially not offering the value for the purchase. Another interesting subject begins to appear when the sub-theme of price is examined, that is the fear by some amongst the community that they will be priced out of the market and that driving will become the pursuit of the elite of society. This seems to touch on elements of social class which is evident within the society in which the online community resides, that of Ireland. The topic of social class will be analysed further later.

Another observation that appears consistently within the data is that of nostalgia or sentiment. Sensory stimulants are discussed amongst members with imagery contrived in relation to sight sound and in some cases smell. It is interesting to note that some users believe that converting old cars to electric cars and keeping the classic design would make electric motors cooler and more compelling to drive. The appearance of electric cars is often criticised for not being aesthetically pleasing compared to what the members believe cars should look like. One determinant of product attachment as described by Mugge, Hendrick and Schoormans (2010) is that of utility. There appears to be a link between the attachment of which many people in the forum have for classic and petrol/diesel cars, and the nostalgic ways in which they describe them and the utility the users have perceived them to offer.

Literature claims that cars can be a potent symbol of power and how car owners would like to portray themselves to the world Diekstra and Koon (1997) The members of the forum seem to be quite conscious of how they will be perceived by the general population if they were to drive an electric car, Tesla is especially mentioned as a brand that many people would not want to be

seen driving for fear of being labelled a Tesla driver. What exactly is a Tesla driver to some members of the community appears to be consistent with a consumer who is arrogant, elitist and disingenuous. Then there are some within the community that seem to have a great affection for the brand who will defend the cars in the forum, often to great vitriol from other members.

The users who are against electric cars bemoan the lack of differentiation within the electric car range and the belief that they would be seen as boring due to the lack of fun in driving these types of cars. Most of the forum members that take part in the electric car threads identify as being male which was confirmed by a member check as the author was basing this conclusion on profile pictures and names.

The author believes that two conclusions can be made from the data regarding the self-image of users and their cars. Firstly that cars that are not considered to be good performers do not give that power status that some car owners may wish to show off, and secondly that because electric cars are not deemed as exciting or cool by a significant portion of the community which is heavily male dominated, there could be a link to the research conducted by Brough, et al (2016) where they argue that men are less likely to engage in sustainable behaviour such as driving an electric car because they associate green behaviour and femininity and as a threat to their male identity.

As mentioned earlier, there seems to be an undercurrent of societal class differences within the forum when it comes to electric cars, the type of people that some perceive to drive them and the price tag. Driving as one user put it as mentioned earlier will become a luxury for the rich due to the expense of purchasing an electric car, while others predict seemingly dystopian futures where the people are ruled by an elite class due to the unfairness of targeting ordinary people's cars because of climate change. The author wishes to acknowledge what was stated earlier in this thesis, that although British and Irish societies are quite different from each other they retain some similarities due to Ireland being controlled by the British monarchy for a large part of its history. One aspect that Ireland has kept is the prevalence of a class based society between the working, middle and upper classes. Some of the rhetoric that is seen in the discussion about people that own electric cars being somewhat aloof may be related to working class fears of reinforcing middle and upper class dominance over them, taking over what was for the working class a symbol of freedom and indeed some small power. These fears may not be as relevant in countries that focuses less on social class.

It is concluded that performance is the main view of the community and is a driver of opinion about electric cars with that opinion being both positive and negative amongst users. While the motivations for buying an electric car are mainly from an environmentally sustainable point of view although it is observed that some members are generally curious and excited by this new technology that has arrived on the market.

RCQ2: How can these meanings help expedite communication on electric motors and facilitate adoption?

The second research question seeks to flesh out the possible managerial implications that the netnographic analysis may have for helping to better communicate electric cars to the motorist community and encourage the change to a more sustainable mode of transport.

Although there were several research articles that the author found which used traditional qualitative techniques such as questionnaires and online surveys in relation to thoughts and motivations behind electric car adoption, none could be found which observed an online community from a netnographic perspective. This research has allowed the author to observe natural conversations over the internet amongst a group of dedicated motoring enthusiasts within a single country about the topic of sustainable motoring and electric cars.

It is important to state from the off that Tesla is by far the most recognised brand of this genre of car, it generates the most conversation and interactions within the electric car section of the chosen forum along with being one of the most divisive topics. Many members regard Tesla as something akin to motoring design genius, while many more can't tolerate the cars. The author finds it interesting to note that although a few of the car brands detractors claim poor design or performance as the main culprit for their dislike, the majority claim that it is the persona behind the car that turns them away. Many within the majority look forward instead to when car brands such as Volkswagen or Renault will launch a more everyday friendly car. I want to mention this first in this section as I believe much of the Tesla specific detractors are different from the other main group of electric car sceptics, as in the fact that many seem instead to be more worried about the perception of their peers rather than the performance of the car itself.

The main concern by the community however is undoubtedly how the car will perform on the road. Up until the present most commercial marketing of electric cars focuses primarily on sustainability and the eco-friendly aspects of the cars, while undoubtedly sustainability is a concern and motivation for the members and it is a recognised sub-theme, the performance

attributes in relation to the electric cars seem to be less focused on. It would seem that in essence using green marketing to promote electric cars in the way that it has been is only preaching to the converted rather than converting consumers of petrol and diesel cars to switch to electric.

Electric cars are essentially new products in a traditional market, that of automobiles. Thus, it is useful to look at electric vehicles from a new product adoption point of view. It can be reasoned that in diffusion of innovation theory, electric cars are at the early adopter phase of the bell curve, meaning that they are starting to slowly gain popularity, but are still along way from critical mass and being fully accepted by the majority of the population. The author believes that the data uncovered during this thesis can help in promoting electric cars to reach critical mass. The data is especially relevant as it comes from the observation of a community who are facing national laws in Ireland where by 2030, electric vehicles are envisaged as being the only type of vehicle being sold.

The data observations clearly show that there are consumers who are willing to pay a premium for the sake of going green, however these consumers are not enough in number for electric vehicles to ever reach critical mass. Indeed, much of the data correlates with research that suggests that although consumers are interested in being sustainable, they are not willing to pay a premium for the privilege. From a segmentation point of view the positioning of electric cars appears to be one of a luxury product within a traditional car market. It seems car companies are failing to see it the electric car market as a separate entity which will need to have many segments if it is to truly reach critical mass.

From analysing the data the research conducted by Ottman, Stafford and Hartman (2006) seems relevant in the fact that they state a concern they have with this marketing strategy is that can sometimes emphasise improved environmental performance over what actually can satisfy the customer. With a focus instead on the greenness of electric cars rather than on the broader expectations of consumers. It is also contended by the same authors that green marketing can sound preachy if not done correctly, this may tie in with the self-image perception of the community members that electric car owners are more elite and arrogant than your average driver.

Well known car brands are soon due to release electric car models of their own to compete with Tesla recognising that there may be a profit to be made from the market. This extra competition could be both a blessing or a curse for the electric car market. It is stated on multiple occasions

by academia that for a firm to pursue a green marketing strategy, their needs to be financial incentive for the business Cronin et al (2011), Leonidou et al (2013) and Menon and Menon (1997) all argue this point as shown in the literature review. The concern being that firms come to the electric car market expecting consumers willing to pay a premium when there is evidence to suggest that a substantial section of consumers in the community studied would have the following grievances.

- Not willing to pay a premium for a sustainable car which they believe does not perform better than a standard car, or indeed performs worse.
- Believe they are being deliberately stripped of the power and freedom that a car portrays because they are too expensive for many.
- Question the integrity of electric cars and their users as being for show and an illegitimate way of saving the environment.

The author would recommend instead focusing on two key aspects that come from the study, emphasising the performance attributes of the cars and having some models that are more affordable for the everyday road user. To borrow terminology from Ginsberg and Bloom (2004), a lean green approach may be more in order as it is not as visible or aggressive an approach. They also suggest segmenting green consumers based on their different shades of green (how environmentally conscience they are). Car companies need to segment the green consumer carefully bearing in mind that many consumers are willing to be more sustainable, but not at a sacrifice to traditional product attributes. If in the other hand they come in with the approach that they can turn a sustainable green car into a luxury segmented car, then the author believes it could be very difficult for the electric car market to ever reach widespread adoption.

It has been mentioned that the majority of the forum is male, as has been member checked with the community studied. This could have implications for further research as it is argued by some that females are far more likely to try to be more sustainable and purchase environmentally friendly products (Dietz, Kalof, & Stern, 2002, Chua & Aldrich, 2000). There also may be scope to explore further who makes the buying decision when it comes to purchasing a car within couples, as a different approach may be needed if it is known you are marketing to a male or a female. In light of the above insight it could be of benefit to try and increase the female consumer as a potential target for electric cars given their propensity to buy eco-friendly products.

Limitations and Further Research.

Limitations.

The netnographic analysis implemented has produced interesting findings on a growing and increasingly important industry as the planet moves towards dealing with climate change. However, certain limitations must be considered.

It is important to state that given netnography is a qualitative research method further research should be conducted from a quantitative perspective to provide further validation for the main study findings. Secondly the research method is time consuming which must be accounted for with any netnographic effort (Kozinets, 2002). All the information that is available online can lead to feelings of being overwhelmed and it is prudent that the researcher manage their time properly while filtering out quantities of spam, noise and online bravado

Thirdly the anonymity of online users makes it difficult to attain demographic indicators from the community being studied. The author did conduct a member check with the main moderator who asserted that the vast majority of forum members were male, however this can not be accurately proven. Additionally the data selected for the study along with the analysis is partially subjective as it leans on the researchers own interpretive skills.

Finally Netnography can be considered to have a constrained range as it focuses on online communities. The research was limited to a very specific automobile group based in one country and as such caution must be used with the studies findings which can not be generalised to other groups easily. To be able to apply the findings of this research paper to another group they must be evaluated for similarity with multiple methods applied.

Further Research.

Aiming to contribute to the understanding of consumers perceptions about electric vehicles certain information has appeared that the author believes would be intriguing to examine further. However, due to the limited scope of the research these could not be further investigated. For example it would be interesting to investigate if electric cars are perceived more favourably amongst female drivers due to their propensity to purchase more sustainable products.

Other aspects that the author believes would be worth further investigation include gauging further research on the elitist perception of electric cars and if this is having a negative effect in the consumers buying process. There is also scope for further study in identifying if communications on electric cars would benefit from switching to a performance based model of communication rather than the common eco-friendly approach with a focus on zero emissions. A regression analysis could be conducted to further identify the barriers to adoption of most hindrance amongst the variables identified (Price, Performance, Perception).

Lastly the author would like to opinion that the above research findings have shown some interesting topics in regard to how electric cars can reach widespread adoption. By marketing to road users smartly without sounding like a brand is moralising, emphasising the real qualities electric cars have in terms of performance then the future sustainability of our planet can be greatly improved. Air pollution in our cities can be drastically reduced without the need for sacrificing personal freedom for public transport. Rural communities can remain self-sufficient and reduce their carbon footprint for when these communities need to travel to urban centres for work or essential services. The analysis of the online community suggests that the majority of consumers are willing to choose the more sustainable car option, it is up to car brands to communicate with them on the right level and not price regular consumers out of the market, for the sake of the planet.

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Appendix.

Code list:

- Charger
- Charge point
- Expensive
- Price
- Cheaper
- Tesla
- Battery
- Warranty
- Launch Control
- Fun
- Cold
- Novelty
- Acceleration
- Noise
- Range
- Mondello park (racing track)
- Silverstone (racing track)
- Nurburgring (racing track)
- Porsche
- Cornering
- Horse power
- BMW
- Boring
- Suspension
- Efficient
- Busybodies
- Sound
- Time
- Vegan
- Planet
- Exciting
- Nostalgia
- Transmission
- Posh
- Refined
- Environment
- Value
- Old
- Polluting

- Mining
- Space-ship
- Advertisement
- Silent
- Excited
- Unaccepted
- Opinion
- Urban
- Commute
- Rural
- Design
- Alive
- Jerk

Thematic network derived from code list.

