Relationship between Social Network Credibility and Online Purchase Intention for Automobile Market in Egypt

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Abstract. The wide popularity of the internet has influenced people to use it on regular basis in order to gain information about cars for purchasing purposes. It is hoped that this research will promote car sales in Egypt by studying the impact of trusting internet social networks such as Facebook on the car brand image to users. It also aims to advise the automobile market industry to better shape its internet online marketing strategies by determining the characteristics of the Egyptian online car buyers, which would be helpful in developing better online marketing strategies. The leading Egyptian automobile websites are studied also for comparison, especially regarding usage of internet social networks in car business. A customized questionnaire, with a total sample of 274 and 5 interviews have been made for this purpose. The research paper performs empirical analysis and uses hypothesis testing to obtain the required results. Validity analysis was used for the credibility factor (Reputed credibility) and reliability analysis with a score of 0.5.

Keywords. Social Networks, Automobile Industry, Trust.

JEL. M00, M31, M30.

1. Introduction

I nternet has become dominant in everyday life, such as Youtube videos, internet forums, pictures, blogs, Facebook and Twitter. Multinational companies have already taken advantage of such tools to be incorporated in their marketing campaigns. Hence today the internet is not only utilized for entertainment, but for business endeavors. E-commerce is a major part of global business now and will continue to do so for the coming years. In Egypt the culture of online purchase, e-commerce and trust in social networks as well as online media is still new, with a lot of misconceptions revolved around such topic. In order for the Egyptian economy to follow in the footsteps of major developed and emerging economies, businessmen and car manufacturers should be aware of such misconceptions and take advantage of internet for the Egyptian automobile sector to evolve.

2. Literature review

2.1. Internet & e-commerce

According Alan D smith, in 2009, investigates internet marketing of cars using empirical analysis. Data through web was obtained by highly skilled professionals from urban metropolitan areas of Pittsburg, USA performing 60 interviews with

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155 professionals from 3 area firms. The research found that using statistics that people use the internet on a regular basis in order to gain information about cars for purchasing purposes. But the majority of them tend to complete the final purchase personally face to face. However, dealers / the middle men help in financing and pricing. The internet has become valuable for customers for the purchase of a new car and actually being ready to buy a new one. He stated that during early years of 2000's, 25 % used the internet in order to know more about the cars and dealers for purchase purposes. But by 2004 the statistics increased by 64 % for people purchasing a new car for the first time and about 54 % for people who purchase used cars. (Incantalupo, "Buyers go online to research makes and models, but most close the deal face to face", 2005 cited in Sykes, 2009). 15 questions were created to know the impressions of professionals using the internet for the purchase and research of cars. They answered questions about their openness to purchase automobiles through online tools. Further, he discovered that many consumers use the internet as a source of information, but not avoiding the dealers. Only 12 respondents who used the web as a tool to buy a vehicle and 34 of 46 respondents use the web as assistance to buy a car, had used the internet before to buy something else. Over 85% of those who don't want to use the internet to buy a car, never purchased online before. Women were 5 times more likely than men to buy cars on the internet. The number of men and women who use the internet for assistance in buying a car is almost equal. There is a negative correlation exists between age and use of technologies. It has been found that 40 out of 46 who were less than 50 years old interviewed go online for assistance to buy a new car. Those over 50 years old, only 6 out 14 would use the internet as a facilitator purpose. And only 12 out of the 60 involved in the interviews would go online for the whole entire purchase process. They were younger than 50. The internet has empowered the customers to know and gather more information about car prices and deals, the cars history and interest rates. People are starting to use the internet more often for gaining information before the car purchase, but still prefer to perform the final purchase face to face. In this particular article, it's necessary to focus on how the internet has shaped the automobile industry, especially when it comes to shaping customers' decisions about whether or not to purchase a particular car after much research over the internet. Therefore, one of the main research objectives of this research is to explore whether or not the internet has also shaped the Egyptian automobile industry.

2.2. Brand image & purchase decision

In another article, Nabsiah Abdul Wahid and Methaq Ahmed, 2011 discussed the impact of the credibility of the company, on the image of the brand and their interest in purchasing a specific brand. The authors conducted a survey asking about an advertisement of specific cooking oil. 250 housewives responded to that survey. The authors asked the housewives how they felt about such advertisement, the brand and their desire to purchase. The authors also asked the respondents whether expertise or trustworthiness was the main factor in influencing their attitudes and decisions. It was found that trustworthiness was the main influencer. The author defined attitude towards brand as "predisposition to respond in a favorable or unfavorable manner to a particular brand after the advertising stimulus has been shown to the individual" (Phelps & Hoy, 1996; cited in Wahid & Ahmed, 2011) SPSS was used through factor analysis in order to analyze the data. Results showed that only trustworthiness had an impact on Yemeni consumers. If Yemeni consumers trusted a company, this will have a positive attitude towards the product brands of the company and they would consider purchasing its products. This research would be focusing on the credibility of social networks, and whether or

not it would have an impact on car brands and lead the same results as the case of the Yemeni cooking oil brand.

2.3. Automobile industry

According to ''Organisation Internationale des Constructeurs d'Automobiles'', the estimated total passenger car sales figures in Egypt in years 2012, 2013, 2014 and 2015 are 110,000, 107400, 134000 and 147400 cars respectively. The car industry in Egypt has great potential, with so many people owning private cars. If business men paid necessary attention to the market, they can reap great benefits and profits.

2.4. Credibility

Tseng & Fogg (1999) discussed in their article the concept of credibility and how the world today has become dependent on computers and their services for providing information and data. The authors mentioned four types of credibility, and they are *presumed credibility* which states that he believes that someone or something credible based on a presumption in his head. *Surface credibility* which states that a person thinks that someone or something is credible based on a quick checkup he had done. *Reputed credibility* states that someone or something is credible based on what other people had told the perceiver. *Experienced credibility* states that someone or something is credible based on his wisdom. The more he deals with people, the more he gains experience and based on that he judges whether the object or subject is credible or not. This thesis will focus on the above mentioned types of credibility.

Once an object or subject loses credibility, it's very difficult for it to be regained back. One of the ways that would fix the issue is, if it started to provide correct and right information over a certain period of time. The authors mentioned that it is difficult to measure the extent to which wrong information provided may severe relationships. The level of credibility depends on the experience of the individual, his understanding and how much the information in question is needed. Authors discussed the importance of credibility when it comes to websites today and reflecting on the importance of what sort of factors that would make websites credible. For a website to be credible, it needs to make it easier for web users to navigate. It needs to be designed in a professional way with no mistakes, avoid showing too many advertisements on the website. Personalizing the website. The website would me more trustworthy and knowledgeable by adding certain elements. For example, adding references to stories being posted. The website should be representative of the corporation that designed it. It's essential to know the different types of credibility because this particular factor will be applied in practice in the data analysis stage.

2.6. Social networks

In a 2009 book "SOCIALNOMICS", Erik Qualman explained how social media had a great impact on people's everyday living and the way companies perform business. Social media has expanded from highly advanced and developed countries to developing countries. Social media has improved communication between groups of people. Individuals can easily know about global news or events simply by checking in into their online account and read other people's comments and conversations. He stated that social media has proven to be practical and encourages people to improve their productivity simply because it's faster and simpler to Google information on the web and search for what interest them instead of looking up a newspaper or a magazine. Information is easily attained online. That is one of the reasons why social media is successful. He concluded that people trusted the opinion of their peers. online as compared to traditional advertisers. That's why people tend to search for product or service reviews before purchasing

something. Amazon.com is one of the websites that offer buyer reviews. Companies should not try to erase or hide negative comments stated by buyers in their reviews. They should be more pro-active and positive by simply reaching out to them and to come up with solutions for their problems and improve their products. Companies should be more creative with their advertising campaigns and incorporate social media to their strategies. He noticed that if a client is happy with a product brand, he will mention his satisfaction on his online profile. Social media also allowed unhappy customers to share their dissatisfaction online which is a golden opportunity for companies to understand their clients and improve their service. Organizations should listen to their client's wants. Organizations should never stop asking their clients opinions about their products or services for continuous improvements. Their customers are their best advertisers. Organizations should define what kind of social media tools they will be using, they should use what the future clients uses the most whatever it maybe. People create short videos, podcasts and take photos on their smart phones. Organizations should pay attention to that channel and encourage their fans and customers to post product related videos such as Youtube.com. It's an effective and cheap way for them to advertise their products and create a new fan base. Egyptian Automobile industry should focus on targeting their customers through social media and encourage their current clients, especially the younger ones to share and post their car requirements online and express their opinions and suggestions. They should also encourage their car fans to express their opinions regarding certain decisions within the scope of car production and design or even delivery. The car industry should take advantage of the current posts of their customers on social networks to help understand their preferences and incorporate them in their buying strategies.

3. Exploratory evidence

Five interviews were made, from ordinary people about their private cars, who happen to be online oriented and all have accounts on social networks. From these accounts, they gather information about cars to make their decisions about car advertisements. Those questions were created in order to understand the mentality of the private car owner. Based on that, the answers gained from the interviews and their beneficial comments and input helped in the design of the questionnaire and to focus on which points to address when in the survey questions. There were 8 questions asked, they were semi structured in depth interviews. The respondents were from different ages between 20 & 50 years old. (3 out of 5 respondents were middle aged while the last 2 respondents were young adults in their early 20's). All respondents agreed that life style is an important factor for choosing their own cars but it was not the main reason why they bought their cars. The make of their cars were Mercedes, Nissan sunny, Di-lanos, Skoda Fantasia and Matrix. Most respondents depend on their relatives, family and friends except for one, who uses the internet and the newspapers to gather information about cars. The brand image of their cars was mainly formed based on friends and family members. This point in particular leads to the notion that the formation of automobile's brand image in Egypt is very subjective. This would be difficult to analyze in the survey due to its high subjectivity. So, the main focus will be on social network's impact on the creation of the brand image. This will lead to better, less subjective study of the formation of the automobile brand image in Egypt. Most respondents don't use social networks to gather information about cars, except for two (the young adults) who are open minded to social networks. All of the interviewees agreed that they take advice from people who own the same brand as they do. All respondents except for one don't trust advertisements in general, regardless whether it is about

cars nor not. This point will be addressed in the survey in detail as to why respondents don't trust online advertisements. There was a difference of opinion regarding the other sources they would use besides their friends and family to gather information about cars. The other sources were the internet, retailers and previous experience. Most of the respondents mentioned that price is the main reason why they chose to buy their cars. The other reason thereafter was safety. Based on the respondents' answers, most felt that social networks did not appear as a credible source to which they can depend on to gather information about cars. Such point will be addressed more in detail in the survey to gain better understanding. Most of the respondents did not trust car advertisements and held no value in their decision for car purchase or their opinion about the brand. The survey will address such point to gain better insight as to why advertisements are not trusted. Based on their answers, price was the first major concern when deciding on choosing the car brand. It should be noted that based on that particular answer, that question was not added again in the survey because respondents felt that automatically price was their number one concern and even if there was another factor, it will be equal in weight when considering the price factor, but never greater. The hypotheses are as follows:

H1: It is expected that the typical consumer who has used or intends to use the internet to facilitate or for the whole process of buying a new car, will tend to have a basic mistrust of social networks.

H2: Egyptian online users have a basic mistrust of the sources by which they seek out the information about cars.

H3: It is expected that the Egyptian online users have a basic mistrust of online advertisements.

H4: Social network credibility (trustworthiness) has a direct, positive impact on the intention of purchasing a new car.

Table 1. *Data Requirement*

Related Hypothesis	Data Required	Question Number
H1: Egyptian online users have a basic mistrust of social networks	To know whether Egyptian online users trust social networks or not	Q21
H2: The Egyptian online users have a basic mistrust of the different sources by which they seek out the information about cars	To understand the effect of the information sources on brand image	Q12, Q13, Q20, Q16
H3: Egyptian online users have a basic mistrust of online advertisements	To know whether Egyptian online users trust online advertisements or not	Q9
H4: social network credibility's (trustworthiness) has a direct, positive impact on the intention of purchasing a new car.	To know the process preference of purchasing a car	Q24

Table 2. *Credibility Types*

Types of Credibility	Question Numbers
Experienced Credibility	Q8, Q9, Q21
Presumed Credibility	Q20, Q23
Reputed Credibility	Q12, Q13, Q15
Surface Credibility	Q14, Q16

Table 3. *Important Survey Questions*

Q12 You would visit the car company website in order to find out more about the car you are interested in.
Q15 You would seek car dealers in order to help you in the car purchase.
Q20 Social networks could influence your choice of car brands.
Q24 How would you prefer to make the final purchase of a car?
Q9   You trust advertisements on social networks like Facebook?
Q13 You would visit professional car forums in order to know more information about cars.
Q16 You would recommend to a friend or a family member to use the internet (including social networks) to search about cars.
Q21 You trust social networks
Q14 You would use the internet in order to help you (for example: comparing car prices, car specifications, …etc) in the purchasing process of a car.
Q23 You would consider purchasing a car after being advertised on social networks

Notes: All the following questions are answered based on the pre stated statements: (completely disagree, disagree, neither agree nor disagree, agree, strongly agree). Except for Q24: (Online or Face to face).

4. Data, model and methodology

Consider the case of (H4), through binary regression analysis. It was found that the model which contained all of the demographic variables and the 4 credibility types was significant, bearing in mind that the factor which had a direct effect on the dependent variable is "reputed credibility". The model explains 78% of the change on the dependent variable. According to the obtained results, whenever the reputed credibility factor increases by 1 unit, the probability of the Egyptian online user purchases an automobile online, increase by 0.011 which is a very weak impact. Fellow researcher Alan D. Smith concluded in his research that even though people use the internet for assistance in the car purchase, they still prefer to make the final purchase face to face. The result of this thesis agrees well with what Alan D Smith stated.

Y=f (gender, age, marital status, employment, education, surface credibility, experience credibility, reputed credibility and perceived credibility + other factors).

For (H1), one proportion test was used to test the degree of trust of social networks for the Egyptian online user population. Assuming that one proportion test results of analysis leading to no trust is greater than 0.5.

Ho = Egyptian online users trust social networks ≤ 0.5

HA= Egyptian online users mistrust social networks > 0.5

The result of the formula is less than 1.65 (based on corresponding tabulated value from standard normal tables) so, we accept Ho. The Egyptian online users as a population trust social networks. It should be noted that even though, the Egyptian internet users trust social networks and heavily depend on the internet for assistance, they still prefer to make the final purchase of a car face to face and not online.

For (H3), one proportion test was used to test the degree of trust of online advertisements for the Egyptian online user population. (Applied same formula as H1). The result of the formula is less than 1.65 (based on the corresponding tabulated value from standard normal tables) so, we accept Ho. The Egyptian online users as a population trust online advertisements.

For (H2), one proportion test was used to test the degree of trust of the different online sources by which they seek out information about cars. (Applied same formula as H1). The result of the formula is less than 1.65 (based on corresponding tabulated value from standard normal tables) so, we accept Ho. The Egyptian online users as a population trust the different online sources by which they seek out information about cars. Factor analysis was used as it is aimed at gathering all the highly correlated variables which are measuring the same theme into a single factor. (i.e.: trust of different online sources), to provide a more holistic approach for the analysis. From the results, it was shown that Q12 (visiting the car company

website online source) was the variable with the highest variance. This shows that the most influential factor, the one that has the highest weight for the formation of "trust of different online sources" factor is the official car company website.

5. Conclusion

Egyptian online users trust social networks, online advertisements and the online source with which they seek out information about cars. This lead to the formation of a positive attitude towards advertisements and online brand image. All these factors should encourage the online Egyptian users to purchase cars online. But, results show that Egyptian online users do not purchase automobiles online. Actually, the buyer needs to examine the car, discuss its features and advantages, as well as accepts the seller's invitation to do a trial drive with the suggested car. Similar conclusion reached by Alan D Smith in the American market. It's a global problem and not just a regional problem which differs from one culture to another. In the Egyptian market even though there is the element of trust, they still prefer to make the final purchase of car face to face. From such results, "trust" is not the only factor when considered to purchase durable goods such as cars. It was found that reputed credibility has a direct impact on purchase intention.

Appendix

Table 1. *Reliability Statistics -Experienced credibility Q21, 8, 9*

Cronbach's Alpha	N of Items
.523	3

Table 2. *Reliability Statistics -Presumed credibility Q20, 23*

Cronbach's Alpha	N of Items
.538	2

Table 3. *Reliability Statistics - Reputed credibility Q12, Q13, Q15*

Cronbach's Alpha	N of Items
.509	3

Table 4. *Reliability Statistics - Surface credibility Q14, Q16*

Cronbach's Alpha	N of Items
.750	2

Table 5. *Reputed credibility (Q12, Q13, Q15)*

Communalities	Initial	Extraction
you would visit car company website	1.000	.679
you would visit car forums	1.000	.715
you would the car dealer to help you to purchase	1.000	.166
Extraction Method: Principal Component Analysis.		

Table 6. *Omnibus Tests of Model Coefficients*

		Chi-square	df	Sig.
Step 1	Step	37.996	24	.035
	Block	37.996	24	.035
	Model	37.996	24	.035

Table 7. *Model Summary*

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	11.875[a]	.130	.778

a. Estimation terminated at iteration number 20 because maximum iterations has been reached. Final solution cannot be found.

Table 8. *Variables in the Equation*

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	Q1(1)	-.791	2.477	.102	1	.750	.454
	Q2			.796	7	.997	
	Q2(1)	-14.639	10345.899	.000	1	.999	.000
	Q2(2)	6.790	9077.363	.000	1	.999	888.713
	Q2(3)	12.070	9077.361	.000	1	.999	174538.122
	Q2(4)	12.357	9077.360	.000	1	.999	232507.999
	Q2(5)	-10.674	11507.712	.000	1	.999	.000
	Q2(6)	3.758	12576.708	.000	1	1.000	42.864
	Q2(7)	-.938	12946.917	.000	1	1.000	.391
	Q3			.305	3	.959	
	Q3(1)	-.337	16110.960	.000	1	1.000	.714
	Q3(2)	-1.404	16110.959	.000	1	1.000	.245
	Q3(3)	-4.023	16110.957	.000	1	1.000	.018
	Q5			2.732	5	.741	
	Q5(1)	8.559	40381.364	.000	1	1.000	5213.658
	Q5(2)	7.523	40381.366	.000	1	1.000	1850.034
	Q5(3)	20.528	3896.115	.000	1	.996	8.229E8
	Q5(4)	27.189	3896.116	.000	1	.994	6.429E11
	Q5(5)	16.529	3896.110	.000	1	.997	15083045.722
	Q6			.020	4	1.000	
	Q6(1)	.779	6.958	.013	1	.911	2.180
	Q6(2)	1.035	7.356	.020	1	.888	2.816
	Q6(3)	-17.151	5908.471	.000	1	.998	.000
	Q6(4)	-24.942	2220.238	.000	1	.991	.000
	FAC1_1	6.235	3.748	2.767	1	.096	510.215
	FAC1_2	-4.545	2.000	5.163	1	.023	.011
	FAC1_3	2.192	1.398	2.457	1	.117	8.951
	FAC1_4	-.925	1.686	.301	1	.583	.397
	Constant	-34.563	18898.176	.000	1	.999	.000

a. Variable(s) entered on step 1: Q1, Q2, Q3, Q5, Q6, FAC1_1, FAC1_2, FAC1_3, FAC1_4.

Note: FAC1_2 is reputed credibility

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