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**HETEROGENEITY OF
DECISION-MAKING
TOWARDS FAKE AND
RELIABLE NEWS
AMONG STUDENTS**

Olga Kanashina

Department of Marketing, Open University
Catalunya
Barcelona, Spain
ORCID 0000-0002-9221-1838

Ana Isabel Jumenez-Zarco

Department of Marketing, Open University
Catalunya
Madrid, Spain
ORCID: 0000-0002-8980-6814

Ruben Huertas-Garcia

University of Barcelona, Spain
ORCID - 0000-0001-6272-132X

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Abstract: To extend the prior studies, this paper focuses on the effects of fake news on students' decision-making traits through their cognitive ability. In particular, we try to respond to two research questions: why people rather believe inaccurate headlines than real information? How are their decisions connected with the level of intelligence measured by the cognitive test? Quite recently, considerable attention has been paid to the evaluation of intelligence by cognitive reflection test (CRT) in parallel with the analytical decision-making process. Thus, applying this methodology, we propose to analyse the CRT performance of undergraduates, after that, assess their perception of implausible and reliable information. We expect to review the initial results where CRT scores are highly correlated with rational thinking and illustrated individual differences. Another issue is to discover students leading analytical strategy towards unfaithful news.

Keywords: Cognitive reflection, students, decision process, fake-news, CRT

INTRODUCTION

Research on customer behaviour has a long tradition from social science to cultural studies due to a broad perspective of essence (Flick et al., 2004). Alongside the conventional consideration of this question, other attributes might be explored in such a specific and volatile area. This particular field of work will deal with Higher education research where students' points of view may be likely regarded as customers (Saunders et al., 2012).

The topic of study is about the source of information that customers utilise to form the brand image of products and services. The students used to get information about the characteristics of the universities where they intend to study. This one will boost choosing the university. And hereby the main forwards of getting information are internet, media,

relatives' opinion, friend recommendations (Allcott and Gentzkow, 2017). Universities allocate huge budget for advertising and marketing. For instance, in the average the UK university spending is 1mln pounds per year for promotion (Hall and Weale, 2019). At the same time, students obtain a lot of information from diverse sources but often they are not able to determine true and fake news to draw up the image of the university. On the other side, there is concern that through media resources it is possible to manipulate the human opinion and provide to public incorrect information. One of the major items to be investigated in this generic field is the attitude to the contradictive perception of some sort of implausible information (Pennycook and Rand, 2019), particularly, stereotypes to look at it in way of fake or reliable information. This should be widely examined in the area of Business schools where is the opinion of students as future leaders getting more principal (Briggs and Wilson, 2007; Allcott and Gentzkow, 2017). The phenomenon of "Who and What influences" (Johnston, 2010) students' choice of Higher education (Cervantes, 2010) is regularly discussed apart from their perception of numerous gossips and stereotypes.

Why do people often trust fake news and might go wrong with real stories? Case in point, Silverman et al (2016) exposed that 20 inaccurate stories in Facebook appeared greater for readers than correct headlines. No doubts, very important the content and environment. As far as we know, in the political arena people are more often inclined to vote for the candidate with some negative stories in the past of their biography (Allcott and Gentzkow, 2017). It is still alive and attractive stereotype of a "bad guy" for the public. And the last election fully proved this fact where Donald Trump scores were over Hilary Clinton ones. It appears the modern

marketing techniques which might be implemented in other industries also.

According to the last idea, this work tries to highlight the interdependence of the information content with personal cognitive skills having resulted in the specific deliberate or emotional decision. Following that, there are various factors, involving in this process, it means, social environment (Mubuuke et al, 2017), personal experience (Oechssler et al., 2009), prejustice, culture (Sim et al., 2020), national aspect (Hossler et al., 1999), etc. For that, firstly we focus on updating the previous studies delivering it in Higher institutions. Secondly, it is supposed to explore the international groups in the experiment, that grants us the chance to evaluate diversity responses. The studying of student characteristics that make them to distinguish fake and real news, would enrich us certain determinants what are in charge to make better decisions. And, among many student traits, we will consider their rationality. Czerwonka (2017) asserts, cultural and national background may play a vital role in anchoring bias during the cognitive reflection test (CRT), which will apply in this research as analogue of IQ test. The final aim of the experiment is to demonstrate the feasibility of identification the variables which has an impact on people choice towards some headlines (Saunder et al., 2012; Vosoughi et al., 2018, Del Vicario et al., 2018). Intrinsic idea is to depict the different sides of human intention and behaviour constructs. In addition, this paper focuses on the statement of choosing the adequate form of data analysis.

THEORETICAL FRAMEWORK

PUBLIC VS PRIVATE EDUCATION

This paper presents a new approach with consideration of a few captivating aspects to clarify the potential divergence that might have an impact on our results: news perception

of students at public vs private institutes; cognitive mind vs emotional thinking.

Historically, academics attempt to be aware of the reasonableness of making a decision process (Frederick, 2005; Evans, 2006; Campitelli and Labollita, 2010; Pennycook and Rand, 2019). The need of understanding the student choice targets the idea to reveal their customer model (Enache, 2011) and identify variable determinants. The majority of prior research have analysed such factors and behaviour drivers to understand the way of thinking (Stanovich, 2004; Maxwell and Chmiel, 2014; Frederick 2005; Thomson and Oppenheimer, 2016). Relations between students' choice and some external components, particularly, media impact become the actual field of research in the framework of worldwide Higher education expansion (Schofer and Meyer, 2005). With these changes, a few aspects have to be put forward, for instance, public or private education institute dilemma? They competition makes influence not only in the content of economically-rational choice (Alós-Ferrer, 2016) but also with a range of situational variables.

What is known about private providers of Higher education it is largely based on their aiming the business and industrial sector (Parker and Guthrie, 2010). In contrast, the state universities mostly pay attention to research fields and supplying students the academic program. Such differentiation might occur due to the students' demands (Hu and Hossler, 2000). What is the more essential point that is interested in to specifically international business studying?

Shah et al (2013) stated that one of the paramount attributes of actual student preferences is student perception as well as opportunity, environment, quality of professors, course program, and future success. The first one has been used in

numerous studies to assess the principal model and probability of extrinsic pressure (Hemsley-Brown and Oplatka, 2014). The extensive literature has been developed on the postulate that “pull-push” factors (Price et al., 2003) allow to classify the customer behaviour in the education industry. Whereas, the academic environments likely demonstrate pulling constructs, at the same time, graduates perspective is formed by “push” determinants. Over time, Sim et al (2020) studies have emphasized similar parameters plus information sources. In this respect, marketing publications stress more on the decision-making process based on a consumer-centric approach following by information search (Hemsley-Brown and Oplatka, 2010). The fundamental interests in this context are discussed towards cognitive and social determinants influencing student feedback and contribute to young people choice.

In light of this, the focus of the consideration is twofold: firstly, student sensitivity to real and fake information; secondly, rationality to decide on intuition. In trying to understand the key factors and interpreting the meaning of outcomes, scholars expect to face with respondent’s rationality, intelligence, traits, reasoning, and distinctive bias (Stanovich et al., 2011).

RATIONAL DECISION-MAKING RATIONAL VS INTUITIVE THINKING

As it has been previously reported in the literature (Frederick, 2005), the performance of cognitive relation links with dual-system theory of reasoning (Epstein and Pacini, 1999; Lieberman, 2003; Stanovich, 2004; Frederick, 2005; Evans and Frankish, 2009), respectively, humans have two cognitive systems. Consistent with this, *System 1* is responsible for heuristic, unconscious reaction (Lieberman,

2003) which permits to get the fast outcome. And that is not bad sometimes. In turn, *System 2* evolved later in human history to supply us with a fast-changed and ruled-based analytical approach (Evans, 2006). At the same instant, rational making decision depends on the analytical ability and moreover, numerical skills. (Peters et al., 2009). So, a non-intuitive response needs more time and comes to the mind after the rejection of the first intuitive reaction (Thomson& Oppenheimer, 2016). This is exactly why, there might be produced possible mistakes in the account of switching to another system for some causes such as previous experience, personal traits (Hunt et al., 1989; Tung and Verbeke, 2010), property of the environment in which people have to make choice, the essence of question etc.

That being the case that one of the puzzled tasks is to distinguish intuitively (fast-reacting, System 1) and analytical rule-based processes (slower acting, System2) (Kahneman, 2011, Stanovich et al, 2011). Both assist in adopting human behaviour to the environment and solve reasoning problems. Over the last two decades, Frederick (2005) invented the Cognitive Reflection Test (CRT) for measuring the thinking disposition, and which basically consists of three mathematical questions. More precisely, this is just another method for testing numeracy as this is a measure of rational thinking and open-minded thinking (Baron, 2008). Above all, it allows to discern the humans with their personal approach (Liberali et al., 2012) to making a decision: either, they mostly rely on subconscious judgment or follow by deliberate and logical issues (Evans, 2006).

METHODOLOGY

The main practical dilemma that confronts the researcher is to identify the most appropriate methodological approach which would answer our study questions. In

general, this problem can be tackled in two different ways: a quantitative and qualitative analysis. In the prior researches (Frederick, 2005; Campitelli and Labollita, 2010; Toplak et al., 2011; Pennycook and Rand, 2019) the most experiments have been developed with quantitative methods to examine this question. Here we will review the conjunction of qualitative and quantitative methods of research, keeping in mind the reasonable usage here the deductive approach – from the generalization of findings towards specific outcomes. To put in another way, from some statements and premises to a logical conclusion.

The quality can be enhanced by providing additional data with quantitative evaluation participant intelligence. We intend to apply the cognitive reflection test (CRT) algorithm of Frederick (2005) three questions and a set of four extra questions from CRT2 of Thompson and Oppenheimer (2016) study to explore this contemporary field. To be more specific, it is some sort of IQ test (Campitelli and Labollita, 2010). Afterward, the students will be offered a set of ten fake (or gossips) and real news for judgment. Overall, the experiment is conducted across some information items in the business education industry. To advance the experiment, we will evaluate the results in some education institutes from different countries, one of them is out of EU.

The outcomes would be assessed with descriptive analysis using STATA - multiple regression analysis with the specification of essential constructs. Another valid experimental tool for such type of research is to utilize one-way analysis of variance ANOVA (Pennycook and Rand, 2019) for identification of statistically significant differences between the means of three or more independent groups, for instance, men used to outperform women in outcomes. The gender difference was investigated in prior studies (Frederick,

2005; Juanchich et al., 2016) however, CRT2 research did not display this result and requires further learning. It is expected to get evidence also pointing to higher numeracy for males (Primi et al., 2018). All in all, our presumption is to confirm the interaction of emotional and deliberative processes for deciding the educational industry.

CONCLUSION

Throughout the forecasting, the prospective of global growth, directly equating to the developing software, innovation and social media networking (Hoag et al., 2017) is more than vital in order to occupy the sustainable customer audience with high influence on it. Simultaneously, the fast-growing business unveils the demand for the new formation of businessmen (Ruiz-Alba et al., 2019). And that underlines the essence of studying massive people's sensitiveness to misinformation evaluating their level of analytical capability (Campitelli and Labollita, 2010). For that reason, this study will explore individuals and group positioning to impact of media on the decision-making process in the Higher education industry (Timothy and Murray, 2010, Carlsson and Nilsson, 2020). From practical benefits, it has to be emphasized the large-scale internet-based experiment that permits us to test the combination of contemporary research approaches.

It is suggested to gain CRT updated outcomes towards students' valid strategy and Gender-Specific Differences in performance predictions. Findings may provide support for the predictable consequences of misinformation of social media in the education industry. We hope to get a result of conducted experiments with some similarity to the previous data and dilate them by doing the comparison analyse. Also, inspection of findings will be inside of this experiment having a data of several education institutes

from different countries.

This data can practically arm (Wang et al., 2019) the marketers with a competitive advantage against rivals in the future. What is more, the findings may be foreseeing the consequences of misinformation on social media (Martel et al., 2019) in education industry.

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