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A REVIEW OF THE MAIN DIFFERENCES BETWEEN BEHAVIORAL AND TRADITIONAL ECONOMICS: A FOCUS ON THE IMPACT OF NUDGE THEORY ON PUBLIC POLICIES AND ITS APPLICATIONS

This paper explores the distinctions between behavioral and traditional economics by analyzing recent literature. It underscores the importance of employing nudge theory in economic decision-making, its impact on consumer choices, and its role in shaping public policies. Data synthesis involved a search across EBSCO Discovery, Google Scholar, and databases like Academic Search Complete, Business Source Premium, and ScienceDirect, yielding 40 relevant articles from 324 initial results. The study contrasts traditional economics, rooted in individual rationality, with behavioral economics, which incorporates psychological and neurological factors. Results reveal that Nudges are recognized as cost-effective, behavior-focused interventions, successfully applied in diverse policy contexts. The Nudge theory's ability to influence behavior through positive reinforcement and indirect suggestions is highlighted. This paper underscores the value of leveraging behavioral economics with nudges to inform decision-making in marketing, social policy, and economic development.

Keywords: behavioural economics, nudge theory, public policy, consumer decision, decision making.

1. INTRODUCTION

Behavioural economics is a relatively recent concept, founded and made famous by the economist Richard Thaler, who won the Nobel prize in economics. This concept, which was inspired by Kahneman and Tversky, aims to explain the irrational behaviour of people when making economic decisions such as buying, selling, borrowing, among others. This motivates several entities, such as governments, organisations, and research and scientific institutions, to try to apply this type of economy to the behaviour of individuals to ensure that they do not make wrong choices in the future (Zak, Jensen, 2010; Ianole, 2011).

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Behavioural economics is a part of economic science that combines psychology and economics to understand how people make decisions. Therefore, in many cases, it seeks indirect intervention to guide human behaviour towards better choices by controlling the selected environment using the concept of choice architecture. This means designing different ways in which the most rational offers can be presented to consumers to see the impact of these offers on consumer decision-making (Thaler et al., 2009; Al Najjar, 2019).

Generally, people make decisions to get the best benefit. In economics, the theory of rational choice states that when a person has several options to maximise his advantage, the most feasible and satisfying option among them will be chosen. This theory assumes that people can make rational decisions while considering environmental constraints. As a result, decisions are made that effectively affect each available option's cost and return. A rational-minded person is a person who can control himself and his decisions and is not motivated by his emotions or external factors. Therefore, the customer knows what is best for him. On the contrary, behavioural economics indicates that a person is not rational and not qualified to make good decisions in different circumstances, where choice depends on the psychology of the individual or institution in which irrational decisions are made without looking at the expectations of any economic models. For example, one of these decisions is the extent to which a customer pays for a cup of coffee or any of the colleges that he will attend, etc. (Wilkinson and Klaes, 2012; Marchiori et al., 2017).

Furthermore, researchers in this field are interested in studying the motives and factors that determine irrational behaviours and biases observed in different socio-economic backgrounds (e.g., loss aversion bias, overconfidence effect, and social norms effect). Multiple Behavioural economists have distinguished this new branch of economics by applying analytical methods and psychological techniques to study decision-making processes and economic behaviours. They intend to increase economic theory's interpretive and predictive power by imbuing it with more reasonable psychological motivations (Al Najjar, 2019). Moreover, Behavioural economics approaches are often used to formulate policies based on the actual behaviour of individuals rather than the assumed behaviour implied by the economic theory, which states that consumer behaviour is always rational. In this manner, governments can guide their citizens toward committing to higher beneficial behaviours, away from the traditional approach of supply and demand and the fundamentals of economics. Behavioural economics assists customers and people in pursuing government objectives and policies (John, 2018; Al Najjar, 2019). Behavioural economics has become critical for policymaking and achieving policy objectives through the nudge concept. It has become critical for policymaking and achieving policy objectives through the nudge concept. In the Nudge theory, Richard Thaler focused on the ideas of limited rationality, lack of self-control, and social preferences influencing human decision-making and behaviour. He offered that a system of Nudges could be used to guide human behaviour. These Nudges can be simple things, such as showing one how much their neighbour is spending on electricity, which may induce them to reduce their usage, or automatically enrolling someone in a pension plan, with an option to withdraw, leading to increased enrolments. As a result, Nudges are easy to execute, cheap, and very effective in changing policies (Sunstein and Reisch, 2016; Sobolev, 2021).

This paper seeks to discuss and contrast Behavioural economics with traditional economics and finally demonstrates how nudge policies can be used to influence behaviour and drive public policy. The discussion is based on existing literature. To begin, the article discusses the importance of Behavioural economics. Second, a discussion of the link between Behavioural and conventional economics. Following that, the paper will address

Behavioural economics' significant divergence from traditional economics regarding decision-making processes. Moreover, it will discuss multiple applications of Behavioural economics. The last section addresses nudge policy and its role in formulating public policies by providing several applications, while the closing section outlines a brief conclusion.

2. METHODOLOGY

Literature synthesis is pursued to trace out data from databases and to make a synthesis. The primary databases utilised to search articles are EBSCO's discovery of science and Google Scholar. Among the databases in it, the emphasis was given to more business-related databases: *academic search complete, business source premium & science direct*. The search topics used for searching include *Behavioural economics* and *Nudge theory*. The total records of search results observed from databases were narrowed down using the limiters such as years *from 2010–2021* since the applications of *nudge theory and Behavioural economics are* a recent phenomenon. Also, the course or discipline option includes only economics, management, business, and *marketing*. The *'relevance of the topic* and the time of publication *'latest'* are applied in the selection process. Out of the total search queries result, 324, over forty articles are synthesised after imposing adequate limiters, removing duplicates, and none-business settings.

Literature Review

Behavioral economics emerges as a distinctive field by deviating from the traditional economic assumption of rational decision-making and integrating insights from psychology to understand human behavior in economic settings. Classical economics postulates that individuals make decisions by rationally evaluating the costs and benefits to maximize utility. In contrast, behavioral economics acknowledges that individuals often act irrationally due to various cognitive biases, emotions, and social influences. This framework accepts that human decisions are frequently shaped by bounded rationality, where decision-making is limited by the information available, cognitive constraints of the mind, and the finite amount of time individuals have to make decisions (Thaler et al., 2021).

The deviations of behavioral economics from traditional economics are manifold and central to its nature. While traditional economics relies on the notion that individuals possess stable preferences and that these preferences are self-regulatory to maximize personal welfare, behavioral economics allows for the presence of systematic and predictable biases that violate the principles of utility maximization (Angner, 2019). It understands that people are susceptible to heuristic-driven biases, such as loss aversion and anchoring, which can lead to choices that deviate from what would be predicted by a model of fully rational actors. Furthermore, while traditional economics posits that markets are efficient and will correct themselves, behavioral economics suggests that because of these biases, markets can fail and may require intervention to ensure optimal outcomes.

Behavioral economics has also introduced the concept of choice architecture, which is the practice of influencing choice by organizing the environment in which individuals make decisions. This approach significantly departs from the free-market foundation of traditional economics, which posits that individual choice should be respected and that interference in market mechanisms is generally unnecessary or harmful. Conversely, behavioral economics supports the idea that through subtle changes in the environment, without restricting options or significantly altering economic incentives, individuals can be

nuded towards better decision-making, a concept popularized by Richard Thaler and Cass Sunstein (Angner, 2019).

Additionally, traditional economic models often assume that individuals make independent choices, whereas behavioral economics recognizes the importance of social norms and their impact on decision-making. This recognition accounts for the often-observed phenomena where individuals' choices are heavily influenced by the behavior and expectations of others, leading to outcomes that might be at odds with what would be predicted by a model in which individuals are making decisions in isolation.

In summary, the essence of behavioral economics lies in its recognition of the complexity of human behavior, which traditional economics simplifies into rationally-driven decision-making processes. It acknowledges that human decisions diverge from the ideal of rational choices due to a variety of influences, which include but are not limited to psychological factors, social contexts, and cognitive limitations. By understanding and incorporating these elements, behavioral economics provides a more nuanced and empirically accurate portrayal of economic decision-making, which has profound implications for both economic theory and policy.

3. RELATIONSHIP BETWEEN BEHAVIOURAL ECONOMICS AND TRADITIONAL ECONOMICS

Rational economic behaviour means rationality of the financial actions of individuals; this ensures consistency of means and behaviours with individual goals, whether they are consumers, producers, savers, or investors, where irrational behaviours are eliminated (Shestakov et al., 2017). Under rational reasoning, the behaviour of individuals occurs as expected, where individuals are not affected by ethics, morals, psychological, social, or political considerations associated with these behaviours. In traditional economics, these values have no bearing on individual behaviour. Moreover, the mindset of individuals makes them only look for ways to maximise their self-benefit, whether it is a consumer benefit or the benefit of maximising profits at the lowest cost. As a result, maximising self-interest is the primary driver of the economic behaviour of individuals, whether in the field of production or consumption (Dimant et al., 2020).

In their book titled Nudge, Thaler et al. (2021) use an interesting analogy of smoking and eating fast food that leads to obesity to visualise the concept of Behavioural economics and how it differs from traditional economics. The authors give a scenario where people's options are often irrational because they do not maximise their benefit. Still, people seem unable to make better choices than that for some reason (Soofi et al. 2019). The rational model in traditional economics assumes maximum benefit for the decision-making process that describes how people make decisions versus how they should. Hence, the decision-making model in Behavioural economics differs from the presumed decision-making model in traditional economics (Alnajjar, 2019).

Thaler et al. (2009) divided people into humans and Econs. Econs behave like the traditional economic models suggest, as they make rational choices at all times, have infinite willpower, process all of the current information they possess, and learn from their mistakes. Their choices are always in favour of maximising their utility, leaving no room for emotions. They defined this character as a person whose actions are only motivated by economic considerations without emotional, ethical, spiritual, social, or eco-friendly considerations. As for the other category, humans make numerous errors in their judgments and are often expected to do so. These humans are tempted by advertisements

or other means; they do not always read everything mentioned in the contracts they sign. They also sympathise and procrastinate at different times (Thaler et al., 2009). Figure 1 demonstrates the main differences between Econs and Humans in main bullets.

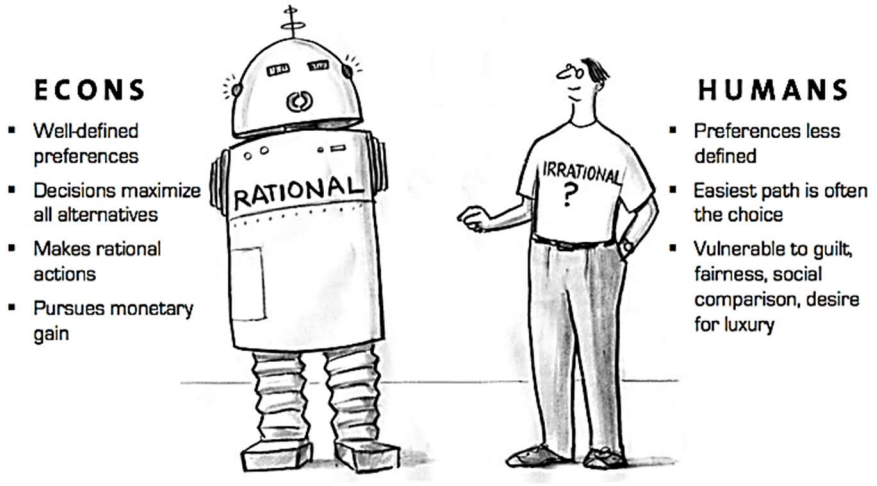

Figure 1. Econs vs. Humans

Source: Author's creation, based on (Thaler et al., 2021).

Therefore, Behavioural economists believe that we are all human, not Econs. Those interested in Behavioural economics focus on decision-making using information and knowledge from psychology and other social sciences. They also began to document and explain many deviations from the traditional rational model that can be seen in the real world. As a result, traditional economic theory is unconcerned with the decision-making process, assuming that individuals would match their preferences to available information about price and quality; hence, they pick the optimal choice that maximises their benefit (John, 2018; Thaler et al., 2021).

Fundamental Deviations of Behavioural Economics from Traditional Economics on the Decision-Making Process

Thaler and Mulanthan (2000) have set three boundaries for human behaviour, including three unrealistic traits: unbounded rationality, unbounded willpower, and unbounded selfishness, to explain deviations from the rational behaviour that traditional economics claims. However, they indicated that this list is not concerned with establishing a comprehensive reference to all possible deviations from the rational behaviour model. However, this list includes most documentation of those deviations that Behavioural economists and psychologists have described in their research on decision-making. The three boundaries are discussed below.

A. Limited Rationality: An Inference-Based Perspective Systemic Errors in the Human Mind

The most critical assumption about the concept of limited rationality is that people have limitations on how much information they can process and are subject to the time needed to process it. Therefore, humans have to make many decisions about several things, so they

make inferences rather than evaluate which option will maximise their benefit in every decision they encounter (Simon, 1955; Simon, 2003).

Kahneman (2011) points out that the individual mind works through two different systems for analysing and making decisions. The first system is automatic, in which the decisions of the individual are automatic and routine and do not require effort and analysis of the facts when making them. Therefore, it is a fast, unconscious, and intuitive thinking system. On the contrary, the second system, which is the rational system, which controls the decisions that the individual needs for more extended periods, also needs to exert more effort to make them, as it is a slow system where the decisions are taken consciously (Kahneman, 2011).

Figuring out these two systems is helpful for understanding the decision-making process, and it also helps to identify cognitive biases and mistakes in the human mind when making decisions. As Kahneman (2011) perceives, these systemic errors, which can be attributed to patterns of cognitive biases, are not random mistakes, so understanding these biases helps change behaviour and reduce the adverse effects of wrong decisions made by individuals.

Table 1. Pros and Cons of Rational Choice Theory

Strengths of Rational Choice Theory	**Limitations of Rational Choice Theory**
Contributes to the understanding of individual and group behaviour	Individuals are not always rational. Also, people value money greater than others.
All theories approach to develop a sense of what we perceive in reality.	In real life, people are frequently influenced by non-rational external influences, such as emotional states.
Can assist in explaining unreasonable actions	Individuals do not always have complete access to the information necessary to make the best sensible choice.

Source: (Lyons et al., 2021)

Individuals deviate from complete rational behaviour due to bias in judgments, beliefs, or selection processes (Kahneman, 2011). The researcher reviews some of these rational biases that limit people's rationality. They are discussed as follow:

Overconfidence: An Overreaction to Risky Behaviours

The common mistake people make is their overconfidence in their abilities and expectations. Most of us view ourselves and our attributes more positively than they actually are. For example, most drivers think they are above average, and almost everyone believes that their personalities are above average. This overconfidence can explain many risky behaviours, including serious health habits. For instance, many people are aware of heart attack risks and cancer due to unhealthy behaviours such as excessive eating or smoking. Still, these people are more likely to think they are less likely to be at risk compared to their peers, even if they have committed the same unhealthy behaviours as they do (Thaler et al., 2009; Al Najjar, 2019).

Limited Attention: The Impact of Heuristics on Cognitive Ability and Decision making

As mentioned earlier, the rational model assumes in its best form that people make decisions based on all the available information they have. But many studies in psychology

indicate that attention is a limited resource, and when attention is limited, the rules of *Heuristic* will determine what people's limited cognitive abilities can do (Marchiori et al., 2017). Moreover, Kahneman states that common causes of death are often judged as those that come to mind quickly, for example, terrorist attacks, even though they occur a little less frequently than perceived. At the same time, other crucial issues that are not often emphasised and highlighted (such as diabetes) are often judged as low incidence even if they exist significantly among people. Kwan et al. (2020) have found that nudging effectively influences the health behaviour s of diabetic patients in particular conditions. They discovered two possible parameters affecting the efficacy of nudge interventions (delivery style and patient qualities). Therefore, these erroneous provisions can lead to bad decisions. Also, the latest events that occurred recently play a more significant role in our memory. For instance, the demand for air travel has declined after a plane crash was covered by the media (Kahneman 2011; Al Najjar 2019; Carminati, 2020).

Loss Aversion: A Theory of Aversion

The concept of loss aversion is that people tend to avoid loss more than their preferred gain, i.e., losing something makes you suffer more than getting the same thing. As a result, people are more concerned about losing something they already own than acquiring something they do not already own (Wilkinson and Klaes, 2012).

Present Bias: The Status Quo Bias in the Management

The status quo bias has emerged when people prefer to keep things the way they are by doing nothing (maintaining the status quo) or by sticking to a decision made in the past. Individuals tend to appreciate present and quick gains more than future higher gains. For example, this principle affects the management of chronic diseases such as diabetes. Most patients find it difficult to estimate the benefits of small behaviour s with continuing effects (e.g., reducing sugars, starches, and foods with high sugar levels), which can avoid severe consequences in the long term (Wilkinson and Klaes, 2012).

Social Norms Effect

Social norms and values mean that individuals usually follow the decisions and choices made by those who are not affected by the prevailing social norms and values or are affected by another group of individuals. Patients, for example, are persuaded to quit smoking when given information about the expected life of their lungs, compared to a group of non-smokers (Al Najjar, 2019).

B. Unbounded Willpower: The Role of Willpower in People's Decisions

This term refers to humans often making decisions they know will conflict with their long-term interests. For example, most smokers say they prefer not to smoke, but many of them keep smoking, and very few pay for a program or get medication to help them quit. As with limited rationality, most healthy people realise their limited willpower, and therefore, they take steps to mitigate their effects. For instance, we can see those who do not keep delicious sweets and fatty foods inside the home because they follow a strict diet (Al Najjar, 2019; Lyons et al., 2021).

C. Unbounded Selfishness: A Social Theory of Benefit Maximization

Lastly, people generally care (or act as if they care) about their acquaintances, friends, and sometimes even strangers. As a result, the concept of benefit maximisation is under debate. Also, in the common assumptions about what this idea entails, this idea differs from

simple altruism that traditional economics has focused on in areas such as wealth distribution or private property. Selfishness or personal interests are limited, but not in the traditional economy, where these limits work differently than what the traditional concept suggests. Contrary to what the conventional economy proposes, people are interested in being treated fairly in many markets and bargaining cases and want to treat others fairly (Al Najjar, 2019; Lyons et al., 2021).

4. BEHAVIOURAL ECONOMICS AND ITS IMPLICATIONS FOR BUSINESS AND CONSUMERS' DECISIONS

According to Diamond and Vartiainen (2012), the use of behavioural economics ideas and applications in regulating individual preferences and decisions has become a global trend. Countries such as the United States and Britain successfully implement these policies, opening the door to a new way to deal with economic behaviour and regulate public policies (Diamond and Vartiainen, 2012). The most prominent application of behavioural economics is the implications and research methods gained from studying the psychology of people and institutions. This type of economy could serve as research and analysis for people and companies' decisions. Also, behavioural economics can be applied to behavioural finance, which seeks to explain why investors make reckless decisions when trading in financial markets. Moreover, companies are increasing their application of behavioural economics to increase their sales. For instance, when Apple introduced the iPhone in 2007, its 8 GB of storage was priced at $600. The price was then quickly reduced to $400, but what if the phone had been released at that price point from the beginning? Possibly the reaction will be adverse in the markets, but after the price cut, consumers thought they were getting a good deal. As a result, Apple's sales jumped with this version of the iPhone. However, many companies realise that their customers make irrational decisions, which is an effective way to embody the behavioural economy in the decision-making policies of these companies; when studying customers' psychology correctly, they achieve solid profits and sales (Diamond and Vartiainen, 2007).

It did not take long for Behavioural economics models to be applied in the political world (the world's first Behavioural science unit was founded in 2010 in the UK). It was initiated by legal scientists working in the mixed field of law and Behavioural economics. Scientists in this field have examined how different cognitive biases have influenced legal outcomes such as jury decisions, contract formation, and even judges' opinions. They also suggested ways in which these anomalies could be used to improve the outcomes in all policy areas, including general results such as organ donation and many individual efforts such as increasing retirement savings and weight loss (Al Najjar 2019). Further, Nudges could be utilised to enhance the online security behaviour of individuals. Bavel et al. (2019) performed an online study with a sample of internet users in the European Union to determine the influence of notifications on security behaviour. A coping message instructed participants on how to decrease their risk exposure, while a threat appeal emphasised the possible negative repercussions of failing to do so. The results show that Risk attitudes, age, and nationality substantially influenced behaviour. Over five years, the most prominent successful example of the nudge theory is the Whitehall unit in the UK; it has saved £300 million for the government. It also contributed to collecting delinquent taxes from 1% to 17% by taking advantage of the principles of behavioural economics. Lastly, the Nudge theory has diverse applications in areas that influence the behaviour of citizens, such as public policy, health care, personal finance, and investment planning. The

theory is also particularly important for companies and marketers looking to increase sales by encouraging changes in human behaviour (Sunstein and Reisch, 2016).

5. NUDGES: AN ARGUMENT FOR SELF-CONSCIOUS DECISION-MAKING

In the past few years, behavioural economists have incorporated many ideas from psychologists like Kahneman, Tversky, and colleagues into traditional economic models concerned with choices. These ideas have had a significant impact on individual behavioural science and decision-making. Later, in 2008, Thaler highlighted the role of Behavioural economics in improving personal decisions and policymaking, explained several anomalies in economic behaviour based on behavioural studies in psychology, and worked on the development of behavioural economics. Also, he described how financial decision-making is influenced by psychological quirks (Abdukadirov, 2016). Expanding our knowledge of how people's previous choices affect the effectiveness of nudges enables us to develop more targeted nudge strategies for specific target groups or types of decisions. One implication is that some behaviour s may be more amenable to 'nudge' in particular demographics or contexts. For instance, although placing nutritious foods at a railway station may encourage good lifestyles since people like to eat something more to satisfy their desire, a similar approach may be ineffective at a movie theatre, where individuals have larger preferences for harmful treats. These experiments contribute to the literature not only because they demonstrate for the first time that a nudge is successful at steering the choice in the lack of a clear preference, but also because they are one of the first to assess the facilitation impact of nudges explicitly. Venema et al. (2020) indicated that the nudge efficiently directed participants' decisions; however, the enablement impact (i.e., decreased ambiguity about the decision) was evident only when choices conflicted, but not when choices were made indifferent.

Further, Thaler and Sunstein (2009) opine that “it is legitimate to try to influence people's behaviour to make their lives longer, healthier, and better”. In other words, they are defending self-conscious efforts by private sector institutions and the government to guide people's choices in directions that will improve their lives. From this point of view, Thaler and Sunstein (2009) advocate for nudges by defining them as “any aspect of the choice architecture that alters people's behaviour predictably without forbidding any options or significantly changing their economic incentives”. Furthermore, the basis of the Nudge theory is to push or guide people to wiser decisions and help them improve their thinking. Earlier, we said that humans are not rational. Thaler and Sunstein said that people need to be encouraged and pushed to do better for themselves and for society as a whole. They emphasised that instead of being forced to engage in certain behaviours, they could be pushed to pursue or stop specific actions (Gino, 2017). Despite a dearth of empirical evidence on the relationship between desires and nudges, the concept that nudges should be ineffective if they do not address people's desires is key to nudge theory, which favors “libertarian paternalism” (Thaler and Sunstein, 2009). Nudging is based on the belief that certain options are superior to others in terms of long-term well-being improvement, hence the term “paternalism”, but only to the extent that individuals agree with the goals expressed by these preferences.

Correspondingly, it was discovered that the nudge did not affect nudge-incongruent desires; thirsty people picked more significant portion sizes notwithstanding the nudge. Hence, the nudge was considered unusable due to a high previous bias supporting or against the nudged choice (Sunstein, 2017). A similar finding was reported in research that used

an opt-out default nudge to automatically move people's tax returns to a deposit account to boost savings. The nudge proved ineffective for those who had already planned to use their money (Bronchetti et al., 2013). A noteworthy example of nudge efficacy in the presence of indifference is research in which the typical printer configurations have been adjusted from one to double-sided printing (Egebark, Ekström, 2016). The default setting adjustment led to a 15% decrease in paper consumption. This study demonstrates the efficacy of a nudge when people are aware of the repercussions of their actions but are neutral about their current decision.

However, unlike traditional parental tools such as fines, subsidies, or bans, nudges are changes in the selection environment by using cognitive biases and imbalances that motivate them (through government and private institutions) and direct them towards choices that best serve their interests. Due to the choices not being changed, the nudges' advocates consider their new patriarchal tools to be liberal in the sense that they are more respectful of individual decisions and freedoms. That is due to the belief that people are free to make the same choices they could have made without the nudges (Al Najjar, 2019; Thaler et al., 2021).

The researchers also provided many examples of the nudge processes in their academic work, but they mention various well-known examples all the time. One such example is a cafeteria manager involved in food arrangements (Thaler et al., 2021). In order to promote healthy eating among cafeteria customers without preventing any options, this manager puts healthy choices on the front shelf and in the best lighting to take advantage of people's tendency towards laziness and the illusion that the things that have the best lighting are the most delicious. At the same time, customers are free to eat sweets with low light that are hardly accessible (but not prevented), meaning that the manager only benefits from dodging customers' Behaviourally to guide them towards healthy choices (Thaler et al., 2009). Nudges could also take a different form, such as the idea of providing information. One typical example of this is food labeling in restaurants (such as calories for meals). On the one hand, it includes information that does not benefit from cognitive biases or imbalances but instead encourages rational deliberation selections. So, focusing on fat content, for example, may distract consumers from any food that contains a high level of bad carbohydrates (Abdukadirov, 2016). Moreover, several studies used examples of behavioural nudges to influence participants' decisions (Goldstein et al., 2008; Salmon et al., 2015). This nudge is like or emphasizes the descriptive norm for a certain choice by intentionally showing what other people have chosen (Stok et al., 2014).

6. THE ROLE OF NUDGE THEORY IN FORMULATING PUBLIC POLICIES

Traditional economic theory is based on strict assumptions, including rationality. Therefore, the person seeks to make the most rational decision that maximises his benefit in return for the cost he pays based on the available information. On the contrary, behavioural economics is based on the fact that a person does not act rationally in his consumption or investments as assumed by the traditional economy. Still, it is influenced by psychological, social, and emotional factors in the decision-making process. Recent years have seen an increase in interest in behavioural policy interventions based on psychological and behavioural economics development tools (Liebe et al., 2018). Such interventions aim to guide behaviour in a preferred route when traditional policy tools such as taxes, incentives, or instructions are impractical, and policies must rely on the voluntary involvement of individuals (Kesternich et al., 2017).

With the recognition that several social problems, such as global warming, obesity, and private debt, are the result of a succession of modest but unwise personal choices, policymakers have grown more interested in 'nudges' as a policy tool for promoting beneficial choices (Jones et al., 2013; Lourenco et al., 2016). To this end, the Nudge theory focuses on using behavioural economics research to formulate policies and systems that help society make the right decisions. As an example of behavioural economics in public policies, Thaler et al. (2021) argue that the government can direct people's behaviour towards the right choice by making it the default option, taking advantage of people's bias towards the preference for the current situation. Practical experience has shown that people are influenced by the choices they have already made and tend to stick to them and avoid other options. This is contrary to the assumptions of the traditional economic theory that people will select the choice they believe is best for them regardless of the initial pick they have already made (Ghesla et al., 2019). The authors claim that once a government makes a policy, it becomes a predetermined option for those who do not choose it (Thaler et al., 2019). Therefore, it will achieve its goal of enacting the particular decision without being strongly imposed on the people, i.e., it will apply it by choice, not by force (John 2018). Based on the authors' view, decisions should be characterised by what they call patriarchal liberalism, which makes the predetermined choice appropriate for the vast majority of them and that individuals have the right to reject the initial choice and choose another (Thaler et al., 2009; Abdukadirov, 2016). The question is whether behavioural economics is applied for effective policy design or public decisions. The short answer is yes. For instance, in the US., Virginia state urged new employees to enroll in the retirement system so that the state pays $1 from its treasury for every dollar an employee pays for retirement. As a result, only 20% of new employees joined the system. However, the state decided to upgrade the system as a pre-defined option for employees unless they requested to withdraw, taking advantage of the current status preference behaviour. The current situation was that the worker had been registered in the system since he had signed the employment contract. As a result, 91% of the new employees chose to stay in this program when the state introduced it as the initial option, and only 9% requested to cancel it (Diamond and Vartiainen, 2012). As an example, possibly a step towards involving behavioural economics and ethics concepts. In Saudi Arabia (SA), the General Authority for Food and Drug Administration has committed all food facilities and menus of restaurants and cafes to put calories on meals and drinks that are served to consumers by the end of 2018. They decided to reduce the calorie content of food products such as sugar, salt, saturated, and trans-fat to make consumers more aware of the dangers of high-calorie meals. Consequently, the decision took effect in 2019 and attracted the attention of many people and residents in SA. Many of them stated that this decision had made them review their meals again to reduce the total calories of the day, which will reflect positively in the future on the level of public health of citizens and residents of SA (Al Najjar, 2019).

However, there are criticisms regarding how nudging is used in marketing, where nudges are implemented to get people to buy certain products rather than helping them make better decisions. For instance, to encourage healthy lifestyle changes, governments could promote traffic labels on food packaging to assist in measuring sugar, fat, and salt levels under the suggested dietary daily value (Trudel et al., 2015). Overall, though nudging is generally perceived positively by the population, primarily when implemented correctly, there are still those who reject it on an ethical basis, at least in some contexts (Alemanno and Spina, 2014). Nevertheless, people on both sides of the debate can agree that if nudges are used, they should be implemented with caution, especially when policymakers

implement them on a large scale. Furthermore, when nudges are used in such cases, there should be some form of oversight that ensures that nudges are implemented in a way that respects people's choices and gets them to make decisions that are genuinely better for them (Lepenies, Małecka, 2015).

7. CONCLUSION

The paper sought to outline the differences between traditional and behavioural economic theories. Furthermore, to bring into perspective how behavioural economics can inform policy by focusing more on the nudge theory. This paper contributes to the body of knowledge on behavioural decision-making by providing a broad overview of how behavioural economics and the nudge theory may impact and be implemented in a wide range of applications as a result of an interdisciplinary literature review that incorporates behavioural economics, the nudge theory, and behavioural decision-making studies. Behavioural economics is a modern field that mixes psychological and economic visions to study irrational decisions and why people make them, considering that people do not act according to that, whereas human behaviour is influenced by emotional, cognitive, and social biases. Therefore, the major difference between the two schools of economics is centered on rationality. However, research indicates that people tend to be irrational in many choices. Hence, the application of rational models may lead to failed policies. Even so, patriarchal policies influenced by rationality tend to require more effort and resources. Thus, many governments and organisations use nudges on a large scale because they are effective, easy to use and keep people from making bad decisions.

Additionally, nudges are often regarded as low-cost, behaviorally informed, and choice-preserving solutions to various personal and social problems. Nudges have become a strategy for behavioral change as they try to ease the selection of the rational choice option by modifying the way choices are delivered. The goal of nudges is to help people make these decisions without interfering with their past desires. But both the relationship between people's past desires and the effectiveness of nudges has a complicated relationship (Venema et al., 2020). Ultimately, the use of behavioural economics ideas and applications in organising individual preferences and decisions has become an international trend and steadily grows. Accordingly, it can be said that if policymakers realise that human behaviour (taking into account other factors) directly affects what happens on issues such as health, education, tax compliance, and many others, this will lead policymakers to become increasingly open to the application of behavioral sciences to design policies with better results. When governments can put the proper framework in their economic policies, they can make significant changes in citizens' lives. While nudging has been demonstrated to be successful in influencing a decision, the present research suggests that other interventions, such as education, have a critical role in shaping preferences in the first place. This combination may be vital for long-term behavioural change (Mols et al., 2015). More profound knowledge of when and how nudges might impact people's behaviour may aid in determining if nudges are an acceptable policy instrument for altering certain unwanted behaviours.

REFERENCES

Abdukadirov, S. (2016). *Nudge theory in action: Behavioural design in policy and markets*. Springer International Publishing. Access on the internet: https://books.google.hu/books?id=HZQoDQAAQBAJ.

Alemanno, A., Spina, A. (2014). *Nudging legally: On the checks and balances of Behavioural regulation. "International Journal of Constitutional Law"*, 12(2). DOI: 10.1093/icon/mou033.

Angner, E. (2019). *We're all behavioral economists now. "Journal of Economic Methodology"*, 26(3). DOI: 10.1080/1350178x.2019.1625210.

Bavel, R., Rodríguez-Priego, N., Vila, J., Briggs, P. (2019). *Using protection motivation theory in the design of nudges to improve online security behaviour. "International Journal of Human-Computer Studies"*, 123. DOI: 10.1016/j.ijhcs.2018.11.003.

Bronchetti, E.T., Dee, T., Huffman, D., Magenheim, E. (2011). *When a Nudge Isn't Enough: Defaults and Saving Among Low-Income Tax Filers*. DOI: 10.3386/w16887.

Carminati, L. (2020). *Behavioural Economics and Human Decision Making: Instances from the Health Care System. "Health Policy"*. DOI: 10.1016/j.healthpol.2020.03.012.

Diamond, P., Vartiainen, H. (2007). *Introduction to Behavioural economics and its applications* [in:] *Introductory Chapters*. Princeton University Press.

Diamond, P., Vartiainen, H. (2012). *Behavioural economics and its applications*. Princeton University Press. https://books.google.hu/books?id=1-SVhlC9mVoC.

Dimant, E., van Kleef, G.A., Shalvi, S. (2020). *Requiem for a Nudge: Framing effects in nudging honesty. "Journal of Economic Behaviour & Organization"*, 172. DOI: 10.1016/j.jebo.2020.02.015.

Egebark, J., Ekström, M. (2016). *Can indifference make the world greener? "Journal of Environmental Economics and Management"*, 76. DOI: 10.1016/j.jeem.2015.11.004.

Ghesla, C., Grieder, M., Schmitz, J. (2019). *Nudge for Good? Choice Defaults and Spillover Effects. "Frontiers in Psychology"*, 10. DOI: 10.3389/fpsyg.2019.00178.

Gino, F. (2017). *The Rise of Behavioural Economics and its Influence on Organisations*. Harvard Business Review. Access on the internet: https://hbr.org/2017/10/the-rise-of-Behavioural -economics-and-its-influence-on-organizations.ha.

Goldstein, N.J., Cialdini, R.B., Griskevicius, V. (2008). *A Room with a Viewpoint: Using Social Norms to Motivate Environmental Conservation in Hotels. "Journal of Consumer Research"*, 35(3). DOI: 10.1086/586910.

Ianole, R. (2011). *Exotic Preferences: Behavioural Economics and Human Motivation. "International Journal of Social Economics"*, 38(4). DOI: 10.1108/03068291111112086.

John, P. (2018). *How far to nudge?: Assessing behavioural public policy*. Edward Elgar. Access on the internet: https://books.google.hu/books?id=2fdmtAEACAAJ.

Jones, R., Pykett, J., Whitehead, M. (2013). *Changing behaviours: on the rise of the psychological state*. Edward Elgar.

Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux. Access on the internet: https://books.google.hu/books?id=ZuKTvERuPG8C.

Kesternich, M., Reif, C., Rübbelke, D. (2017). *Recent Trends in Behavioural Environmental Economics. "Environmental and Resource Economics"*, 67(3). DOI: 10.1007/s10640-017-0162-3.

Kwan, Y.H., Cheng, T.Y., Yoon, S., Ho, L.Y.C., Huang, C.W., Chew, E.H., Thumboo, J., Østbye, T., Low, L.L. (2020). *A systematic review of nudge theories and strategies used to influence adult health behaviour and outcome in diabetes management. "Diabetes & Metabolism"*, 46. DOI: 10.1016/j.diabet.2020.04.002

Lepenies, R., Małecka, M. (2015). *The Institutional Consequences of Nudging – Nudges, Politics and the Law. "Review of Philosophy and Psychology"*, 6(3). DOI: 10.1007/s13164-015-0243-6.

Liebe, U., Gewinner, J., Diekmann, A. (2018). *What is missing in research on non-monetary incentives in the household energy sector? "Energy Policy"*, 123. DOI: 10.1016/j.enpol.2018.08.036.

Lourenço, J., Ciriolo, E., Almeida, S. (2016). *Behavioural insights applied to policy: European report 2016.* Publications Office.

Lyons, A., Kass-Hanna, J. (2021*). Behavioural Economics and Financial Decision Making. "SSRN Electronic Journal".* DOI: 10.2139/ssrn.3887605.

Marchiori, D.R., Adriaanse, M.A., De Ridder, D.T.D. (2017). *Unresolved questions in nudging research: Putting the psychology back in nudging. "Social and Personality Psychology Compass"*, 11(1). DOI: 10.1111/spc3.12297.

Mols, F., Haslam, S.A., Jetten, J., Steffens, N.K. (2015). *Why a nudge is not enough: A social identity critique of governance by stealth. "European Journal of Political Research"*, 54(1). DOI: 10.1111/1475-6765.12073.

Nwafor, O., Singh, R., Collier, C., DeLeon, D., Osborne, J., DeYoung, J. (2021). *Effectiveness of nudges as a tool to promote adherence to guidelines in healthcare and their organisational implications: A systematic review. "Social Science & Medicine"*, 286. DOI: 10.1016/j.socscimed.2021.114321.

Salmon, S.J., Vet, E., Adriaanse, M., Fennis, B., Veltkamp, M., Ridder, D. (2015). *Social proof in the supermarket: Promoting healthy choices under low self-control conditions. "Food Quality and Preference"*, 45. DOI: 10.1016/j.foodqual.2015.06.004.

Shestakov, A.A, Noskov, E.G, Tikhonov, V.A., Astafeva, N.S. (2017). *Economic behaviour and the issue of rationality* (ed. E.G. Popkova). Springer International Publishing. DOI: 10.1007/978-3-319-55257-643.

Simon, H. (1955). A *Behavioural Model of Rational Choice*. *"The Quarterly Journal of Economics",* Oxford University Press, Vol. 69(1).

Simon, H. (2003). *A Behavioural Model of Rational Choice*. 1st ed.

Sobolev, M. (2021). *Digital Nudging: Using Technology to Nudge for Good.* "*SSRN Electronic Journal".* DOI: 10.2139/ssrn.3889831.

Soofi, M., Sari, A., Rezaei, S., Hajizadeh, M., Najafi, F. (2019). *Individual time preferences and obesity. "International Journal of Social Economics"*, 47(1). DOI: 10.1108/ijse-04-2019-0271.

Stok, F.M., de Ridder, D.T.D., de Vet, E., de Wit, J.B.F. (2014*). Don't tell me what I should do, but what others do: The influence of descriptive and injunctive peer norms on fruit consumption in adolescents. "British Journal of Health Psychology"*, 19(1). DOI: 10.1111/bjhp.12030.

SUNSTEIN, C.R. (2017). Nudges that fail. "*Behavioural Public Policy"*, 1(1). DOI: 10.1017/bpp.2016.3.

Sunstein, C.R., Reisch, L. (2016). *The economics of nudge: critical concepts in economics*. Routledge.

Tate, W.L., Ellram, L.M., Bals, L., Hartmann, E., van der Valk, W. (2010). *An Agency Theory perspective on the purchase of marketing services.* "*Industrial Marketing Management"*, 39(5). DOI: 10.1016/j.indmarman.2009.08.005.

Thaler, R.H., Sunstein, C.R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. Yale University Press. Access on the internet: https://books.google.hu/books?id=dSJQn8egXvUC.

Thaler, R.H., Sunstein, C.R. (2009). *Nudge: improving decisions about health, wealth, and happiness*. Penguin Books.

Thaler, R.H., Sunstein, C.R. (2021). *Nudge. The final edition.* Yale University Press.

Trudel, R., Murray, K.B., Kim, S., Chen, S. (2015). *The impact of traffic light color-coding on food health perceptions and choice. "Journal of Experimental Psychology: Applied"*, 21(3). DOI: 10.1037/xap0000049.

Venema, T.A.G., Kroese, F.M., Benjamins, J.S., de Ridder, D.T.D. (2020). *When in Doubt, Follow the Crowd? Responsiveness to Social Proof Nudges in the Absence of Clear Preferences.* "*Frontiers in Psychology"*, 11. DOI: 10.3389/fpsyg.2020.01385.

Zak, P.J., Jensen, M.C. (2010). *Moral markets: The critical role of values in the economy*. Princeton University Press. Access on the internet: https://books.google.com.eg/books?id=6QrvmNo2qD4C.