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The Frailty of Models, the New Era, or a Rotten World of Consumers' Financial Behaviour?

Abstract

The aim of the article is to analyse the structure of consumer behaviour models and their applications to financial behaviour. The paper is theoretical in nature, examining generational breakdowns and selected trends in consumer behaviour. An analysis of the ‚rules' significant for types of consumer behaviour is conducted. Despite recently intensified theoretical and empirical analysis of consumer behaviour, a coherent research approach that integrates the issue of consumer behaviour with the specificities of the financial-services market has not yet been developed. Models remain frail, their functionality is still insufficient, and their applicability is constantly being altered by influences on consumer behaviour, including macro and microeconomic factors and the influence of scientific fields such as economics, sociology, psychology, management and anthropology. This article attempts to create a model that takes into account the general factors adopted in models constructed so far, along with the assumption that economic, cultural, social, personal, experiences, and other factors play a role in shaping and stimulating at least five variables: type of consumer from a particular generation (Cy); type of financial products and services (X_y); motivation (M_y); capacity (Cap_y); and opportunities (O_y).

Keywords

consumer behaviour models | generations | personal finance | behavioural trends

JEL Codes

A14, D10, G4

Introduction

The ongoing systemic changes in the financial-services market have not only led to infrastructural transformations, but have also triggered shifts in consumer behaviour. Consumers have evolved into independent participants in the market game, with choices constrained by resources, knowledge, and skills (Gorynia, 2019). Consumer behaviour (in general) is the combination of actions and perceptions constituting the process of preparing for decisions about goods or services; making said decisions; and subsequent consumption.

The subjectivity and primacy of consumers in relation to other market participants is crucial in the presented models. The complexity of these models and their apparent lack of exemplification may result from the widely varying types of consumer behaviour.

Consumer behaviour models primarily aim to formalize economic, sociocultural, and psychological factors that influence purchasing decisions. Financial behaviours (as a subgroup of consumer behaviours) should be determined by the same factors as general behaviours, plus some factors specific to the discipline. However, the models for financial behaviours can be difficult to apply due to constantly changing conditions in this field. Doubts have therefore arisen about how justified it is to assign patterns and models to market realities, and how universal they can be in the presence of multiple variables in the environment.

The theoretical considerations presented in this study serve as the foundation for understanding why, despite the intensification of theoretical and empirical analysis of consumer behaviour, a cohesive research approach, connecting consumer behaviour issues with the specificity of the financial services market, has yet to be developed. It is challenging to find a one-to-one match between model and financial behaviours (Korneta and Lotko, 2021), with only one of them (Guirdham's model) taking into account factors specific to the financial-services market (after

Smyczek, 2014). This model, however, is subject to several limitations and generalisations stemming from the principles adopted during its construction. The models' functionality of the models is also negatively influenced by the wide spectrum of determinants of consumer behaviour that have been established. This makes the analysis of consumer behaviour much more difficult and the explanation of its specificities more complicated.

The primary influencer of factors related to consumer behaviour patterns (e.g., environment, values, needs) is viewed in the literature to be societal and cultural changes (Dolan et al., 2012). All of these factors contribute to the broad range of different consumer behaviours, particularly across different life stages. Despite many developments in the field of consumer behaviour studies, a consistent research approach, combining the issues of consumer behaviour with the specificity of financial service markets, has not been established to date. Theoretical models should, by definition, explain, or at least attempt to explain, consumer behaviour in the market, taking into account conditioning factors. From a theoretical perspective, placing the consumer on a timeline (cohort effect or time effect) should provide a better understanding of their approach to financial decisions, although this is not always the case.

The paper delves into the generational divide's effects on selected trends in consumer financial behaviour, as these areas often reveal shifts in consumer behaviour across different markets (Potocki & Białowąs, 2022). The nature of a particular generation is determined, among other things, by the passage of time, economic, social, and psychological factors, technological progress, and new trends – but also fashion. In the present work, analysis of the significant 'rules' for different types of consumer behaviour has been conducted. Increasingly, two contemporary intertwined consumption trends of excessive and conscious consumption can be observed, where financial behaviours are dependent on how leisure time is spent, evolving needs, and often, visions of unlimited consumption possibilities.

Given the interdisciplinary nature of this subject, and the fact that behavioural economics and financial theories were initially developed primarily through experimental observations and survey results, there are theoretical doubts about which theoretical models best fit financial markets and whether they can attempt to explain consumer financial behaviour. The social and material determinants of the formation of cognitive and behavioural patterns are both variable and are therefore subject to the dimension of time. This means that consumption patterns remain characteristic of specific social systems and the corresponding stages of development for societies and civilizations (Senda, 1998).

The aim of the article is to analyse the structure of consumer behaviour models and their applications in the area of financial behaviour. The structure of the paper was organized with the research objective in mind and starts with a brief conceptual framework of consumer behaviour. Considerations about models for consumer behaviour provide a basis for conceptualizing a functional model in section 2. Section 3 is a further attempt to answer the question of whether cycles, changes and trends among age cohorts and generational groups affect consumer financial behaviour. Section 4 presents possible rules of consumer behaviour by grouping factors that may influence market behaviours and characterizing models in an attempt to explain consumer financial behaviours and diagnose the components of a functional model for them.

This article's contribution to the literature is an attempt to conceptualize a Consumer Financial Behaviour (CFB) Model, assuming that economic (y_1) cultural (y_2); social (y_3); personal (y_4); psychological (y_5); and others (y_η) factors play a role in shaping and stimulating at least five variables. These are conceptualized as type of consumer (C_y); type of financial product or service (X_y); motivation (M_y); capacity (Cap_y); and opportunities (O_y). This CFB model incorporates elements of Roszkowska (2001)'s rule proposal, Smyczek (2007)'s model and Xiao & Kumar (2023)'s model. The final two sections discuss the findings and conclude the article.

1. Theoretical frameworks of consumer behaviour

Various approaches to consumer behaviour have emerged over the years. In this study, it has been chosen to present only selected models and theories of consumption and market consumer behaviour, with a focus on those that can explain consumer financial behaviours. Hansen (1972) defines consumer behaviour as a combination of actions and perceptions that constitute the process of preparing for the decision to choose a good, making the choice, and consumption. Fabiunke et al. (1976) indicated a broader perspective on consumer behaviour, believing that it arises from an individual's perception of their needs; it encompasses the entirety of objectively and subjectively defined, rational and emotional, conscious and unconscious actions during preparations for decision-making in the consumer-goods market, as well as during consumption.

The discussion on needs and their hierarchy in consumer behaviour continues with Szczepański (1976) and Pohorille (1980)'s contributions around this topic. Conversely, a more schematic approach was presented by Runyon and Stewart (1987), who defined consumer behaviour as actions related to planning, acquiring, and using market goods and services. A continuation of this type of consideration can be seen in Engel et al. (1993), where the authors characterized behaviour as a set of actions related to obtaining and using products and services, as well as all activities preceding their disposal. The most comprehensive definition is presented by Antonides (2003; Tarde [1903]: 2015), who defines consumer behaviour as both psychological and physical actions encompassing a wide range of elements such as motives, reasons, purchase and usage, and feelings of satisfaction and well-being.

Without delving into the specifics of all these particular definitions, three general stages or phases can be distinguished in all of them: the emergence of a need, an acquisition strategy, and post-purchase behaviours (Oszust & Stecko, 2020). Consumer behaviours encompass the habits, actions, and decisions of customers during the search for, ordering, and purchase of products and services (Walters, 1974; Schiffman & Kanuk, 1997), and are often associated with an abstract and challenging-to-identify category.

Assuming that "behaviours" consist of reactions to external and/or internal stimuli, they could then be defined as: (a) conscious reactions to stimuli; (b) simple acts, e.g., impulsive actions; and (c) complex acts. Many attempts have been made to explain consumer behaviours using classical economic concepts (Brown, 1972; Williams, 1985; Akerlof & Kranton, 2010a, 2010b). It was assumed that people make rational decisions (the notion of "*homo oeconomicus*") and carefully calculate the profits they could achieve and the losses they could incur. From this perspective, consumer choice can primarily be explained by economic and marketing factors, such as price, product specifics, and distribution (Kotler & Armstrong, 2008; Bristow et al., 2002; Clemons, 2008).

Factors shaping consumer behaviour can broadly be categorized as dependent on the consumer; influenced by genetics; or independent of the consumer and stemming from the environment. To summarize the classification of the factors in the literature, three major groupings can be distinguished for them: (a) internal/external; (b) endogenous/exogenous; (c) some combination of economic, socio-cultural, marketing, biological, demographic, psychosocial and other types. It is worth noting that in Kieżel's (2010) studies, the basis for classifying factors is objectivity (economic/non-economic) and subjectivity.

Financial behaviours depend not only on level of financial resources but also on many social and psychological factors, such as their general approach to life; level of optimism; sense of control over their destiny; attitude toward money; money management style; and their attitude toward financial institutions. Relating the justification of consumer choices in the literature is related to (ir)rationality (Markin, 1979) is just one way in which the concept of *homo oeconomicus* has been criticized, especially from a sociological perspective.

The relationship between spontaneous social interactions and social structure was conceptualized by Polanyi (1941) as the "dynamic order," or in his later works, "spontaneous order," as popularized in the 1960s and 1970s by Hayek. The belief that sociology possesses better tools for explaining economic phenomena was espoused by Granovetter (1985); economic behaviours cannot be explained without considering the components of the social structure, embeddedness in social relationships, and their environment (Czernek, Marszałek, 2015).

The classical and neoclassical concept of *homo oeconomicus*, often criticized in institutional, behavioural, and social economics, seems outdated and insufficient in explaining phenomena related to real market choices made by individual decision-makers in contemporary economies (Galbács, 2017; Szarzec, 2014). Sentimentality, the emotional aspect of human behaviour, is contrasted with rational, cool choices. The nature and specificity of consumer behaviour issues indicate their interdisciplinary character (Butler, 2011). Considerations regarding consumer behaviour can also be rooted in disciplines such as psychology, sociology, philosophy, or cultural anthropology. It is worth remembering that early works of classical economics include numerous references to psychology, ethics, and morality, including Smith's reflections on the principles of individual behaviour ([1759] cite as

2010). Bentham (1781/2000)'s ideology advocated for the measurement of happiness and utility that resulted from consumption.

Although the discipline psychology largely disappeared from economic discussions by the early 20th century, economic psychology continued to be studied, with the discourse being revisited at the end of the century. Tomer (2007) argues that behavioural economics is not a homogeneous school, but a collection of different theories, including the Michigan School (G. Katona); psychological economics (C.F. Camerer, R. Thaler, E. Fehr); behavioural macroeconomics (G. Akerlof, R. Kranton); evolutionary economics (R. Nilson, S. Winter); behavioural finance (R. Schiller); and experimental economics (Smith). Despite the convergence between economic analyses and the natural sciences, psychology has continued to provide insights, as evident in the views of J.S. Mill, F. Edgeworth, V. Pareto, I. Fisher, and J.M. Keynes.

The strongest scientific connections in the field of consumer behaviour are with psychology. Currently, the stream that combines economics and psychology is referred to as behavioural economics. The trend in the research of considering the irrationality of consumer behaviour and cognitive psychology can be observed in the studies of Tversky & Kahneman (1986), who point out that consumers do not always follow a model-like behaviour because their decisions are influenced by many subjective factors and may be made under conditions of uncertainty. They may be guided by impulses, impressions, personal feelings, and thus are often based on limited rationality. Zackhauser (1986) also highlighted clashes between rationalists and proponents of behavioural economics, concluding that if consumer behaviour violates rationality, it should be treated as non-economic. In contrast, Thaler (1999) argued that neoclassical economics assumes that people are capable of performing complex calculations, devoid of emotions, never lose self-control, and are purely selfish. Camerer and Loewenstein (2004), on the other hand, advocated for incorporating the social factor into behavioural economics to better explain phenomena, arguing that behavioural economics is an attempt to make economic theories more practically useful, primarily by increasing their capacity to explain and predict consumer behaviour in light of realistic assumptions.

The foundation of psychology, personality, and emotions, of which the consumer may or may not be aware, plays a significant role in the decision-making process (Maison, 2013). Continuing the research on consumer awareness and consumer psychology, Maison and Stasiuk (2014a; 2014b) indicate where knowledge about consumer behaviour can be gathered, and then determine the significance of fundamental cognitive, emotional, and motivational processes in consumer decision-making. Fennis & Rucker (2023) examined the psychological underpinnings of consumption from the perspective of its impact on well-being and health (2023).

Mainstream economics excels in its ability to construct abstract models, while sociology's strength lies in its focus on the complexity of socio-economic realities. Veblen (1899/1998) believed that human beings act more on the basis of habits and customs than by optimizing all the actions they take. Veblen's hidden normative point of view is embedded in his idea of human instincts (Ishida, 2021). Sociological theories demonstrate an interest in studying markets, the rationality of actors, and the system of stimuli generated by the interaction of actors. According to the field of sociology, rational behaviour is one in which the actor is guided by a hierarchy of values and preferences recognized within a given social group (Coleman, 1990). The modern way of thinking is much more liberated and individualized and glorifies the consumer's free choice. Some authors emphasize the requirement of discipline inherent in such consumption, such as in Turner (2010)'s "disciplined hedonism", Jacyno (2007)'s "development of self-control", or Szafruga (2021)'s "spontaneous order".

The interdisciplinary nature of the discussed issue is evident from the many attempts to link consumer behaviour with fields such as philosophy or cultural anthropology. These fields connect these consumer behaviours to traditional value systems, beliefs, and customs, which are passed down from generation to generation and vary widely across different cultures and subcultures (De Mooiji et al., 2011; Majeed, 2019).

2. From simple to complex models – approaches to modelling consumer behaviour

Conceptualising a model of consumer financial behaviour requires embedding assumptions into existing models of consumer behaviour in general. Consumer behaviour models are often mistakenly equated with behaviour patterns. Despite many developments in the field of consumer behaviour sciences, a coherent research approach that integrates the issue of consumer behaviour with the specificity of the financial-services markets has not yet been developed. For this reason, only selected models whose assumptions fit the characteristics of financial behaviour will be presented in detail.

As Smyczek (2007) finds, consumer behavioural patterns in the market should be defined as reflecting currently functioning regularities and regularities in a holistic manner. Behaviours reflect systems of preferences, whilst patterns are not constant and uniform. Despite their limitations, models are helpful in understanding complex relationships, consumer-market relationships, and the decision-making processes of consumers. As Krzyżanowski (1999) points out, models serve several functions: (a) descriptive-analytical; (b) explanatory; (c) predictive; and (d) utilitarian. In the literature, there are many quantitative and qualitative models aimed at explaining consumer behaviour (Zalega, 2012).

There have also been efforts to explain behaviour using the analysis of conditioning determinants (Rampl & Eberhardt, 2012). Focus on behavioural aspects in various fields is evident in Roszkowska (2001)'s classification, where the models created are most often used to explain purchasing behaviours in relation to different groups of products. The classifications of models presented in Smyczek (2007), Masion & Stasiuk (2014a; 2014b), Korneta & Lotko (2021), and partially Moitala (2007), despite establishing numerous criteria and divisions, focus primarily on the complexity simple and complex models, due to the broadest-division criterion (Figure 1). Mazurek-Kusiak (2019) division further classifies models into behavioural models, which, in the case of the Fishbein and Ajzen, Bettmen, and Mowen models, are also part of complex models. The framework for further analysis will be the division into simple and complex models.

Simple models, in a general sense, attempt to explain and characterise consumer behaviour. They present one aspect of consumer behaviour and do not explain the relationships between individual factors. The simplest example of such a model is the stimulus-response (SR) model (Phipps & Simmons, 1997) – traditionally illustrated by Pavlov's experiment, which from the perspective of consumer behaviour would indicate that information about a price reduction of a product or service would influence its purchase.

A more complex model is the "black box" model, which is based on the SR construction. A set of factors (price, quality, availability, reviews, image) directly influences a consumer or a given population's decisions (Smyczek & Sowa, 2005). Another "black box" model is Kotler's purchase process model (1994), which identifies factors at the input and output of the process. It verifies a broader range of factors that stimulate purchases and cause decision outcomes. Since "black box" models focus solely on the action of external factors, they can be useful (from a marketing perspective) only when internal factors are insignificant or have only a minor role in shaping consumer behaviour (Smyczek, 2007). In contrast to "black box" models, decision process models depict individual stages in the consumer decision-making process (Przybyłowski et al., 1998). These models examine whether consumers can make favourable decisions based on past and new information. The model consists of multiple stages: recognizing a need; searching for options; evaluating options; making a choice; and finally, taking action. It does not take into account factors influencing consumer decisions, nor does it specify the values or significance of a consumer's individual options.

Korneta & Lotko (2021) identified a third category of models within simple models, which are those based on a person's internal aspects, such as their attitudes, needs, and motivation. Among the most popular theories in this group of models are Maslow's hierarchy of needs; McGregor's Theory X and Theory Y; Herzberg's two-factor theory; McClelland's achievement motivation theory; goal-setting theory; and reinforcement theory. Within the category of simple models, one can identify a hybrid of two types of models: "personal variables", which focus on processes within the individual (perception, attitudes, motivation), and "decision process" models – Rice's Perceived Value/Perceived Probability of Satisfaction (PV/PPS) model. The main premise of the PV/PPS model is to consider two elements: the perceived value of the product for the consumer, and their perception of their probability of achieving satisfaction. The model assumes the subjective utility (SU) of the consumer, calculated through the value attached to the decision outcomes (PV) and the perception of the probability of each outcome (PPS). Based on this model, it can be concluded that the greatest benefits are achieved for the consumer when the outcomes of their choices are highly rated by them and are also more satisfying (SU = PV x PPS). The aforementioned simple models focus on identifying stimuli influencing consumers

Division according to Mazurek-Kusiak (2019)

- Consumer Behaviour Theories in Economic Sciences
- Simple decision-making models
- Complex Consumer Behaviour Models
- Behavioural Models of Consumer Behaviour

Division according to Maison & Stasiuk (2014)*

- Consumer Decision-Making Model (EKB - Engel-Kollat-Blackwell)
- Fishbein and Ajzen's Multi-Attribute Attitude Model
- AIDA Model (Attention, Interest, Desire, Action)
- DAGMAR Model (Defining Advertising Goals for Measured Advertising Results)

Divisions according to Smyczek (2007)

- Simple/complex
- Macro/micro Scale
- Theoretical/empirical
- Low-, medium- and high-level
- Descriptive (historical and current)/normative/predictive
- Dynamic/dichotomous
- Functional/intellectual
- Behavioural/statistical
- Quantitative/qualitative
- Mathematical/sequential/typological
- General/ad hoc

Division according to Moital (2007)**

- Quantitative
- Qualitative

Division according to Raszkowska (2001)***

- Economic (Javoson, Manger, Walras, Pareto, Samualson
- Psychological (Pavlov)
- Motivational (Fraud, Maslov, Harzberg)
- Social (Veblen)

Figure 1. Selected models of consumer behaviour
Source: own elaboration, based on Mazurek-Kusiak (2019); Maison & Stasiuk (2014a; 2014b); Smyczek (2007); Moital (2007); and Raszkowska (2001). ***Notes:*** **models are based on the rationality of the decisions made;*
***quantitative and qualitative classification does not differentiate models well, as hybrid models cannot be excluded. Moreover, both very simple and very complex models are included in one group;*
****these models confirm the interdisciplinarity of the topic of consumer behaviour, as they embed behaviour in different sciences but do not combine elements of different disciplines.*

and determining the results of these factors; as Smyczek (2007)'s considerations suggest, the decision process model and hybrid models provide the most comprehensive picture of consumer behaviour, although they still do not explain the reasons behind behaviours.

Complex models consider at least two aspects related to consumer behaviour. Smyczek (2007) categorizes models into three groups: structural models, stochastic models, and simulation models. Korneta & Lotko (2021) present a slightly different classification of complex models, dividing them into structural and simulation models. Within the structural category, they further differentiate them into integrated and empirical models. For the purposes of this discussion, this paper adopts Korneta & Lotko's classification as the basis for further considerations.

Integrated-structural models illustrate the relationships and elucidate the psychological processes that explain consumer behaviour outcomes. The most popular models in this category are the Nicosia model (1966), the Howard-Sheth model (1970), and the Engel-Blackwell-Kollat (EBK 1968) model (Blackwell et al. 2001; Engel et al., 1968).

The Nicosia model is the oldest one describing consumer behaviour and focuses on the relationships between businesses and potential consumers. It depicts the interactions and connections between the two main participants in the market game, and relates to four areas in the consumer decision-making process: (a) consumer attitudes based on market-derived information; (b) customer product search and evaluation; (c) the act of purchase; and (d) feedback, in the form of experience acquired by both the consumers and the business. It's worth noting that this model finds applications in identifying and assessing consumer responses to stimuli.

In the Howard-Sheth model, four types of variables are distinguished: (a) inputs; (b) perpetual and learning constructs (psychological); (c) learning constructs (external); (d) outputs. Input variables include sources of information, stimuli, and the environment. A significant part of the Howard-Sheth model assumes that psychological factors determine consumer actions when making decisions, which present a series of output factors (such as the decision to make a purchase or abstain from it, which may reveal an individual's interests and opinions). External variables include the significance of the purchase, intentions, personality traits, time pressure, and the consumer's financial status.

The most comprehensive consumer behaviour model, which focuses on both information processing and purchase decision-making, is the Engel-Blackwell-Kollat (EBK) model. It served as a starting point for subsequent models: Engel-Blackwell-Miniard (1993) and Andearsen, Hansen (cited by Schiffman & Kanuk, 1997). The EBK model based on a five-stage decision-making process – (a) recognition of the problem/need; (b) information search; (c) evaluation of choice alternatives; (d) decision/purchase; and (e) post-purchase consequences, which are influenced by external factors. A central control unit plays a crucial role, receiving external stimuli and evaluating them. The EBK model more flexibly and consistently illustrates consumer behaviour than the Howard-Sheth model, and highlights both positive and negative shopping outcomes. Importantly, it takes into account the human information processing process, which is overlooked in other models. The EBK model comprehensively explains consumer behaviours and decision outcomes, making it potentially the most useful in practice, even though it doesn't fully account for information processing and consumer involvement.

Among the fundamental empirical-structural models, we can include the Fishbein and Ajzen model (1974), Bettman's model (1979), and Peter and Olon's model (2004). Referring to the previously described connections between economics and other sciences with the subjectivity of decisions, Fishbein and Ajzen's (1982) concept of attitude (also known as the theory of planned behaviour) seems to combine elements from various fields of study. The practical applications of this model are controversial because they assume that an individual's attitude towards an object/product results from their beliefs about the attributes and evaluation of the object/product, provided that a given attribute is important to the consumer (Figure 2).

This model is based on external variables, including personality, emotions, experiences, age, gender, knowledge, education, religion, income, beliefs, attitudes, intention, behaviour, and actual sense of control. It also assumes that from a consumer's evaluation of a given product's characteristics, one can calculate their overall attitude towards the product and make conclusions about which product the individual has a more positive attitude towards (Maison & Stasiuk, 2014a; 2014b).

Model A_0 is criticised by Salomon et al. (2006) for its complexity and the multitude of factors it considers to be influences upon consumer behaviour, as well as the model's optimistic assumptions. It is worth agreeing with the latter criticism; the assumption of a comprehensive thought process, with the selection of optimal solutions, contradicts the notion that consumers may make decisions based on emotions, habits, or momentary impulses, and that a consumer's decision may result from a direct stimulus-response rather than from an attitudinal assessment.

Peter & Olson's model analyses how information from the environment is processed in consumer behaviour and the significance of knowledge, beliefs, and intentions for the entire process. According to their assumptions, consumers interpret information using two related cognitive processes: (a) attention (identifying relevant and irrelevant information) and (b) comprehension (determining the meaning of information; interpretation based on existing knowledge, memory, meanings, and beliefs). The result of integrating these outcomes is the behavioural intention. As reported by Cenon & Ong (2012), Peter & Olson's model has been used by researchers in three countries – Japan, Thailand, and the Philippines – to research the impact of a product's country of production on consumer perceptions of its quality and price.

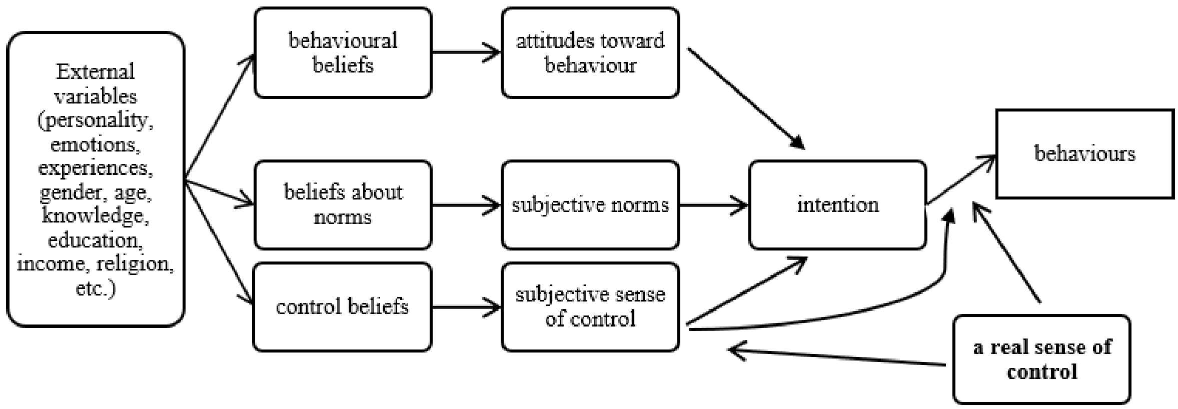

Figure 2. Theory of planned behaviour - Fishbein and Ajzen's model (A_0)
Source: own elaboration based on Fishbein and Ajzen (2009, p. 22).

The complexity of the consumer decision-making process is highlighted by Bettman's model, which presents the decision-making process as a form of information processing that occurs according to a program consciously controlled by the consumer. The decision-making process is influenced by (a) the limited capacity for conscious information processing; (b) availability and evaluation of information; (c) the efficiency of internal regulatory processes; and (d) the feedback effects created by decisions on consumption processes along with the accumulation of knowledge and experience (Światowy, 2006).

The third group of models consists of simulation models, which are based on modelling multiple independent and autonomous units. Modelling involves designing the behaviours of individual units by describing their actions, environment, and surroundings. In reality, simulation models are based on both simple and complex models and represent their practical implementation. This simulation-model approach is criticised for being difficult to generalise because the models that are developed apply only to a specific group of problems, and there are limitations in the process of designing the decision-making system itself.

One remedy for these problems is the Triandis Model (1980). This is a simulation model used when mathematical-analytical models are not applicable. In the literature, the Triandis model is often used to assess the effectiveness of companies' marketing strategies and understand the costs of changing suppliers (Blut et al., 2022). It can be a valuable tool for financial institutions trying to better tailor their offers. Petty et al. (1983a and b) argue that consumers make decisions with a limited amount of information. They introduce the term "heuristic path," which defines behaviours shaped by simple information coming from promotional activities or the consumer's environment. On the other hand, Schifmann and Kanuk (1995) believe that, unlike the economic model, consumers make decisions based on only sufficient information about the market and the product.

As Smyczek (2007) notes, with such a wide range of models, only one of them takes into account the specific realities of the financial services market. Guirdham (1987)'s model is based on the concept of Attention-Interest-Desire-Action (AIDA), which describes how advertising affects consumers (the AIDA model was created by Lewis in 1898, although other sources point to Strong as the author of the AIDA model from 1925) (Wijaya, 2012) and presents and explains the psychological foundations of its operation (Maison & Stasiuk, 2014a; 2014b). Other sources attribute the AIDA model to Strong (1925). However, this model is burdened with many limitations and generalizations that arise from the principles of its construction. The large number of determinants it uses makes the analysing consumer behaviour significantly more challenging, and explaining its specificities more complicated.

3. Whether generational affiliation affects consumer behaviour

Consumer behaviour can be justified using various factors, including economic, socio-demographic, psychological, philosophical, cultural ones, as well as using the effects of marketing (see sections 1 and 2). Attempts to provide a broader perspective on variables and their influence on social behaviour can be seen in generational cycle theories, in which researchers try to explain trends, fashion, customs, and societal habits through the consequences, communities, or experiences of a given age cohort. However, as Folta (2020) correctly points out, one must be careful not to ignore the internal differences within periods and the fact that individual groups within a generation may compete to impose their "generational legend".

Classical theories regarding the role of generations in history and social sciences have evolved since the interwar period. Mannheim (1952) considered generations to be both a biological and a cultural phenomenon, emphasising the uninterrupted succession of generations as a condition for cultural continuity. Importantly, he also addresses the complex and multifaceted social moods of a given era. Within a single generation, many different generational units can exist, all representing their own specific experiences. Mannheim, in his views, refers to the works of Pinder (1928), pointing out that each generation has its potential to fulfil, and the style of this fulfilment may vary. However, this does not preclude the possibility of inheriting and continuing the strength left by predecessors.

Garewicz (1983) emphasizes the purposefulness of generational experiences and fulfilling a mission and considers absence of generational experiences to be unhealthy, although this view is not shared by Fatyga (2005). Davidson (1968) points to the views of Ortega y Gasset, who reflects the mission that should guide the next generation, whether it be continuity or rebellion. Continuation of the research on this topic has occurred through the work of Strauss and Howe (1999), who sought repeatable patterns and regularities in the behaviour of successive generations.

The issues of financial behaviour of consumers and fitting them into the framework of the model are highlighted by the Overlapping Generation (OLG) model, based on the work of Allais, Samuelson, and Diamond (Samuelson, 1958; Malinvaud, 1987), which indicated the importance of working and non-working groups within generations, including youth, working and retired populations (Weddepohl, 1990). This model assumes households to be selfish, only considering their own utility and consuming all their resources before they die. As Rydell (2005) claims, it is tacitly assumed that transfer from one generation to another is unethical and a denial of intergenerational equality. If generations do not fight each other, it means that there is intergenerational equality between them.

A key category of a consumer's biography is their generational affiliation. Generations are delineated based on date of birth and identity. Strauss and Howe identified the generational eras for the 20th century as the G.I. Generation (1901-1924), Silent Generation (1925-1942), Baby Boom Generation (1943-1960), Generation X (1961-1981), and the Millennial Generation (1982-present); they also found generational phases, which are linked to the secular cycle phases and relate to stages in the life cycle – Growth, Awakening, Unravelling, and Crisis.

Typical theoretical views regarding generational cycles agree that the behaviour and reactions of representatives of specific generations to events can exhibit generational repetition. They also tend to assume the adoption of behaviours from the previous generation; non-synchronicity in reactions due to previous experiences; and complete fragmentation of a generation. Putting these aside, based on contemporary research on this subject, it is necessary to diagnose where exactly the boundary between generations lies, as it can be quite fluid.

According to Gray (1967), Ortega y Gasset attempted to identify generations with a specific age (e.g., from the age of 20, or between the ages of 16-25). However, further research on this topic has not been conducted. Strauss and Howe define these boundaries by the phases of the secular cycle, which are currently associated with Anglo-American historical divisions. There are discrepancies in the boundary years for the beginning and end of generations, as noted in various sources, including Strauss & Howe (1997), Karashchuk et al. (2020), and Dimock (2019). Life Course Associates (2023) names the Greatest Generation (1901-1924), Silent Generation (1925-1945), Baby Boomers (1946-1964), Generation X (1965-1981), Generation Y and Millennials (1982-1994), Generation Z (1995-2012), and Generation Alpha (2013-2025).

Adapting other markets and economies to these generational divisions requires a provisional assumption that age categories are neutral. From a theoretical standpoint, analysing generations in terms of cohorts and age is possible, but practical. The case, however,

"...Still poses a significant problem: while the American Silent Generation (people born between 1927 and 1946) differ from their G.I. predecessors in that the former were too young to fight on the front lines of World War II, it is still a 19-year period. So, are those born in 1940 still part of the Silent Generation, or are they already Baby Boomers? After all, a 13-year-old and a 20-year-old theoretically belong to the same generation, but they reacted differently to the events of March '68." (Folta, 2020, p. 3).

Methodological doubts arise, as one cannot overlook the separation of cohort effects from age effects. While the former is associated with certain conditions or characteristics of individuals born around the same time, the latter relates to individuals' simultaneous progression through various life-cycle stages. This raises the question of the extent to which specific behaviours are determined by a similar birth year or by a similar age. Additionally, there is the time effect (e.g., economic conditions or market returns at a specific time).

In addition to generational factors and their consequences, decision types, purchase types (such as thoughtful, habitual, or impulsive), and behaviour types may all be significant for explaining consumer behaviours. One of the simplest classifications by Gajewski (1994) divides decisions into consumer decisions (where the consumer is the decision-maker) and consumption decisions (decisions related to consumption). It can be assumed that all consumption decisions are differentiated by the subject, while consumer decisions are differentiated by the object. Engel et al. (1993) conceptualised extended/limited decision-making, habitual/variety-seeking buying behaviour as types of decisions.

A broader context regarding the causes in the level of consumption can be found in the ways in which different economies are run, as well as in factors in the development of civilization. However, there may be difficulty in measuring the influences of culture, education, or ethics on economic growth. The world of consumption can be overwhelming in its excess. Issues related to the ecological effects of consumption gain particular significance as a trend that connects to economism, ecologism, and human value systems with eco-philosophy. In response to this trend, there is deconsumption, which contradicts the demands of consumerism (Bylok, 2017). The guiding principle of deconsumption is the concept of the "6 R's: Rethink, Refuse, Reduce, Reuse, Recycle, Recover". Such an approach encourages consumers to live rationally and responsibly. Therefore, there is a likelihood of such a group of consumers withdrawing from the credit sector. This could also result, however, from a decrease in trust in financial institutions, self-restraint in owning credit products, and the growing importance of alternative entities offering products and services. Representatives of financial institutions should pay special attention to the possibility of utilizing consumer knowledge in the process of improving individual services or creating entirely new ones.

The phenomenon of consumption has recently undergone rapid changes driven by younger generations. The style of contemporary consumers in the financial market can be described as highly eclectic. It represents a blend of consumerism with deconsumerism. Consumerism, when uncontrolled, impacts, for example, the demand for credit products, including "Buy Now, Pay Later" deferred payments (Waliszewski et al., 2023). The increasing interest in multi-faceted consumerism among researchers is evident in analyses conducted by Lim et al. (2022), who perform a bibliometric analysis from 2009 to 2022 on this subject. Patrzałek (2019) also argues that one of the fundamental consequences of excessive consumption is the widening social gap between different social strata and groups.

The trend toward prosumption in financial markets is primarily aimed at young and educated individuals, with special channels of communication created for them to provide suggestions regarding service-delivery processes and market offerings (Klein et al., 2022).

Additionally, one can encounter the trend of consumer ethnocentrism, which is expressed through purchasing preferences for products originating and produced in one's own country (Mishra et al., 2023). Consumer ethnocentrism can be associated with choosing services only from institutions with domestic capital, a choice based on both emotional and moral premises.

A wider view of preferences, wants and needs is given by Becker and Stigler (Duflo & Banerjee, 2019), who assume that what happens around consumers has no influence on their behaviour. According to their premise – "*De Gustibus Non-Est Disputandum*" ("Tastes are not discussed") – understanding human preferences should be avoided, as they are part of identity. The lack of influence from, for example, the environment, education, and parents preclude the possibility of conforming to social norms. They also question the paradigm of "standard preferences" (since standard preferences can be used to try to explain extraordinary behaviour.

Consumer expectations, especially those related to shopping and communication with financial institutions, are changing, and the trend of new technologies is seen as related to domesticity, which involves performing traditional activities at home (Kowalska, 2015). New technological conditions and new methods of communication and sales have initiated a trend of new media and the virtualisation of consumption (Marszałek & Ratajczak-Mrozek, 2022). In the case of financial services, electronic banking and robo-advisory services (Waliszewski & Warchlewska, 2022) align well with this trend.

4. Towards a functional model of consumer financial behaviour

On the basis of the theoretical assumptions of consumer behaviour models presented here, identification of behaviour with generational divisions (the concept of and age and cohort), inheritance of behaviour through overlapping generations, and changes in behaviour due to prevailing trends, an attempt was made to diagnose a functional model of consumer financial behaviour. The model will be expanded and completed based on assumptions of Roszkowska (2001), Smyczek (2007), and Xiao and Kumar's (2023) research.

Roszkowska (2001) described consumer behaviour types in the market through the theory of ten rules: (1) Attitude; (2) Involvement; (3) Awareness; (4) Price; (5) Frequency; (6) Risk; (7) Type of product; (8) Speed; (9) Price to quality; (10) Substitute good. She considers factors influencing consumer behaviour to be "attributes" and creates rules based on them. Roszkowska relies on the work of Assael (1987), who identified four types of market behaviours based on the degree of brand involvement: (a) complex market behaviour; (b) dissonance-reducing behaviour; (c) habitual behaviour; and (d) diversity-seeking market behaviour. These rules were initially used in an attempt to build a model describing consumer reactions to changes in product prices. Roszkowska showed that rules and their complexes can be a useful tool for describing consumer behaviour types.

Smyczek's three-factor model (3F) assumes that all factors that practically influence consumer behaviour in the market can be reduced to three main determinants. This high level of generality makes more detailed analysis of the different determinants irrelevant. It should be emphasized that in the 3F model, unlike previous models, it is assumed that these determinants are necessary conditions for specific consumer behaviour in the market. The author of this text agrees with this argumentation.

Other attempts to conceptualize the model were also made by Xiao & Kumar (2023), who indicate that background (demographic, economic, social, psychological, and other factors); intervention (environment, family, government policies, service providers, and other financial entities); and context (economic, pandemic, technological, cultural, and other factors) in specific behaviours (management, borrowing, saving, investing, insurance, and others) lead to certain outcomes, including financial well-being, economic well-being, social well-being, subjective well-being, family well-being, other domain well-being, overall well-being) Xiao and Kumar's proposal is attentive to the input factors that project the consumer's financial behaviour in various areas, assuming that the behaviour must have a specific effect. Given the definition of "consumer behaviour," the effect may be the same as the decision (the final stage of behaviour), but this may not always be the case.

Considering the significant links between economics and psychology in consumer behaviour, the author of this article will present selected rules that may have the greatest impact on consumer financial behaviour and the further development of a functional behaviour model. A detailed catalogue of factors, numbered from y_1 to y_{45}, is presented by Roszkowska (2001). The use of Roszkowska's rules and her proposed catalogue of factors, along with Smyczek's three-factor model, "3F" (Motivation, Capacity, Opportunities) and the conceptual model of research on financial behaviour by Xiao & Kumar, leads to this model in its simplest form (Figure 3):

Type of consumer (C_y) is based on direct and indirect characteristics. Financial products and services (X_y) are categorised based on their complexity and capital security. Motivation (M_y) is defined as an individual's ability to process information and identify needs, along with personality and environmental factors, and the influence of product and service providers. Capacity (C_y) encompasses alertness, awareness, possession of knowledge, financial resources, and experience. It should be added that these factors may depend on education, profession, culture, and other socio-economic factors. Opportunities (O_y),

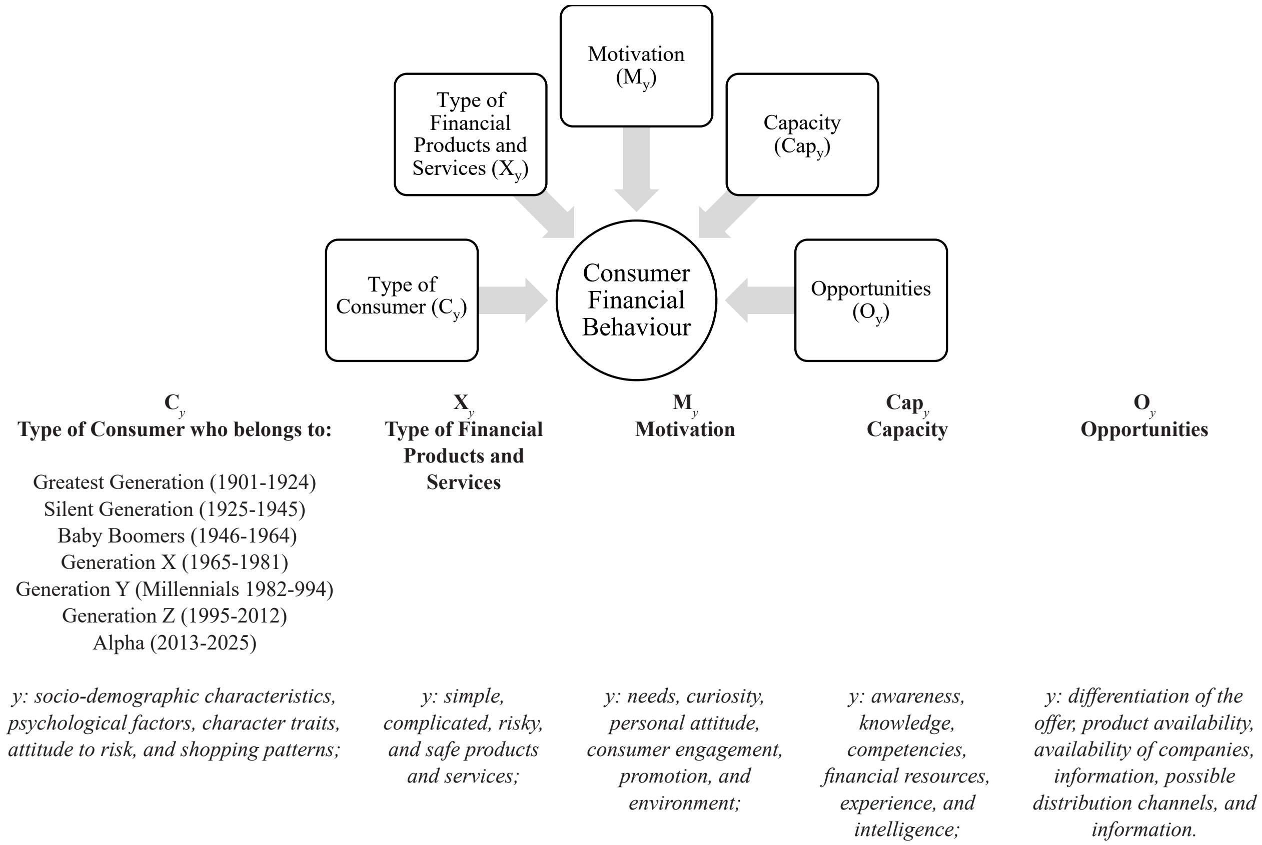

Figure 3. Consumer Financial Behaviour (CFB) model
Source: own elaboration

on the other hand, are related to the accessibility and location of products and services, the diversity of their providers, and their access channels.

In the CFB model presented here, determinants were not indicated as components, as they play a role in shaping and stimulating the C, X, M, Cap, and O variables. Previous assumptions describing the subject, object, and environment of the study, along with (often) an infinite number of factors and various divisions (see Section 1), directly affect the shape of models and their lack of application, especially in a dynamic financial environment. Moreover, the questionable and subjective (selective) selection of variables for the study of consumer financial behaviour does not allow objective measurement of the weight of factors– for example, taking three economic factors from the *n*th basket for the analysis of savings behaviour. The omission of variables is justified by their quantity and their often-abstract nature. The proposed variables in our model are denoted below as y:

Basket of y: y_1 – economic factors; y_2 – cultural factors; y_3 – social factors; y_4 –personal factors, y_5 – psychological factors, y_η – other factors

These are not a closed catalogue and do not directly determine consumer behaviour. The type of consumer describes the recipient of financial services in terms of their personal, social, psychological traits, habits, and customs.

5. Discussion

Among the presented models, none of them find a completely universal application in consumer financial behaviour research. Perhaps their erroneous assumptions result from too rigid a relationship between factors influencing decision-making (as seen, for example, in the Howard-Sheth Model), and perhaps these conditioning factors prevail at all stages of consumer behaviour, up to the final decision, rather than the decision itself.

Guirdham's model, cited by Smyczek (2007), does not take into account the psychological aspects of consumer engagement. It is applicable when a consumer makes a decision to use very complex financial services, but is not entirely suitable for situations related to taking out loans or other financial commitments, where a financial institution determines whether a consumer can use a specific financial service. Furthermore, this model does not apply to situations where the consumer does not make decisions, or when decisions are routine in nature. Smyczek (2007) suggests that the awareness stage is what primarily shapes a consumer's attitude toward a specific service, and then they decide on a specific brand.

The author of this paper disagrees with Smyczek, finding Guirdham's model to be justified, especially in light of empirical research that has been conducted worldwide for over a decade. Most of these studies have focused on financial awareness and its components and knowledge. This means financial institutions recognize and will continue to recognize the importance of conducting comprehensive research on financial behaviours, as it is in their interest.

In practice, Fishbein & Ajzen's model proves to be an example of a scientific-research trap since, so far, it has only been tested in highly developed countries. The decision not to test the model due to purely macroeconomic factors (economic development) seems a flawed assumption, as consumer decisions are mainly motivated by microeconomic reasons, and the model is based on external variables.

The weakness of the discussed hypothesis of generational cycles seems to be in its lack of attention to the internal diversity of eras, as discussed by Mannheim (1952). The distinction between the current generation and previous generational groups is also ignored. Strauss and Howe (1997) seem to write almost exclusively about broad generational communities, and as Fatyga (2005) points out, a generation in the narrow sense, i.e., Mannheim's generational groups, may want to impose their own version of history or "generational legends" on others. Strauss and Howe believe that only a part of the population born in a given time period will set the tone, and the lack of this distinction and the focus solely on the broad generational community create the danger of falling into the "generational legend" trap and ignoring the internal diversity of the era. Generational divisions based on Anglo-American history also overlook economic diversity and historical factors.

Financial behaviour as it has been discussed thus far – as a subgroup of consumer behaviour – should be determined by the same factors as general behaviour, plus some specific factors specific only to the financial realm. but the difficulty in using models results from Constantly changing economic and financial factors. The author of this paper has made Consumer Financial Behaviour model in an attempt to supplement and expand upon these models; it draws upon Roszkowska's (2001) rule proposal, Smyczek's (2007) model and Xiao & Kumar's (2023) model. The CFB model is based on three observations:

(1) In the case of Roszkowska, the focus was mainly on factors and their incorporation into rules relevant to types of consumer behaviour;

(2) Smyczek, on the other hand, rejects abstract determinants, as they are the reason for the obsolescence of existing models;

(3) Xiao and Kumar's proposal points to input factors that influence consumer financial behaviour in various areas, assuming that a behaviour must have a specific outcome. Considering the definition of "consumer behaviour," the outcome may in fact be synonymous with a decision (the final stage of behaviour), but this does not always have to be the case.

CFB adopts the assumptions that the model of financial behaviour should be based on at least five variables: the type of consumer belonging to a given generation; the type of consumer, the type of financial products and services; their motivation; the capacity and their opportunities, as shaped and stimulated by various types of factors. This provides a perspective on adapting the CFB model to different markets and countries with different levels of economic development.

6. Conclusion

It should be noted that among the models presented here, there are some that attempt to comprehensively explain consumer behaviours or consumer decision dynamics. The multitude of factors and influences from various fields of study contributes to the mismatch of existing models with the specific nature of financial services. There is also an observed schematic approach to financial behaviours where they are mainly based on financial decisions (the final stage – purchase). Consumer behaviours also consist of habits, actions, and decisions that occur during the process of searching for products and services, and this is often overlooked. Furthermore, merely assuming that financial behaviours are influenced by economic factors, and to a marginal extent, by social or psychological factors, should be considered insufficient and even questionable, requiring further research and analysis.

Efforts should thus be made to create a model that explains consumer financial behaviours. The model should be characterised by simplicity while also having heuristic power. Such a constructed model of financial consumer behaviours can find applications in many markets, objectives (payment, savings, investment, credit, insurance, retirement) and in studying and forecasting behaviours that have been poorly described so far by models and rules.

Generational changes and new trends give reasons to believe that the constant evolution of the environment necessitates the continuation of research on rules and models of consumer financial behaviours. The proposed CFB model can serve as a framework for further modifications depending on market needs. The author of the article is aware of the inexhaustibility of the topic, as the spectrum of theories, models, and components influencing consumer financial behaviour is vast, and the dynamics of the consumer are difficult to predict. Selecting the most important ones to highlight is a challenge that needs to be acknowledged.

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