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# Citizens' support in social mission platforms: Unravelling configurations for participating in civic crowdfunding platforms



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#### ABSTRACT

Crowdfunding platforms have recently expanded their mission and domain into promoting social movements such as helping the communities or improving local amenities. This study taps into the less studied type of crowdfunding platforms and seeks to advance our understanding of users' participation in supporting local projects mediated by digital platforms. To this aim, we utilized a theoretical multiplicity approach for developing a configurational theoretical framework that integrates two dominant behavioural theories (VBN and TPB) to empirically test citizens' motives for participating in Civic Crowdfunding Platforms (CCPs). By using fuzzy set qualitative comparative analysis (fsQCA) for examining 537 respondents' data, this study explores the emergent configurations that explain the heterogeneity of citizens' behaviour in CCPs. Following a *theoretical multiplicity approach and configurational multiplicity perspective*, we explore the complex and asymmetrical interactions between substantive factors shaping different configurations that explain or ~ participation in CCPs. Analysis of empirical data revealed seven different configurations that can adequately explain participation behaviour and five solutions culminate in ~ participation, among which two exemplify free-rider citizens. This empirical study by bridging the body of knowledge on configurational perspectives with behavioural theoretic responses to our understanding of citizen participation in CCPs.

#### 1. Introduction

The discourse on how to mobilize citizens and their resources, including their time, money and ideas, toward addressing social or local issues is an important concern in our society seeking a brighter sustainable future. Pervasive crises such as COVID-19 pandemic again revealed that humanity is in need of 'extension of prosociality beyond close-knit networks' (Baldassarri and Abascal, 2020, p. 1183). Recent socio-technological developments, in particular, digital platforms play a focal role in actively broadcasting challenging situations or innovative ideas to stimulate citizens' cooperation in modern societies. Social Mission Platforms have enabled the creation of shared values and resolving social challenges through providing technological infrastructure and institutional arrangements (Logue and Grimes, 2022). Social Mission Platforms go beyond exchanging commercial goods and services, by expanding their mission into facilitating public goods, services, and values. Civic Crowdfunding Platforms (CCPs) are a specific type of Social Mission Platforms that 'channel citizen funds toward specific projects', ranging from physical structures to amenities and local services (Stiver et al., 2015, p. 250). CCP shapes a network of citizens to propose and fund civic projects with public interests. This type of platform introduces new and more democratically reachable channels for empowering communities to propose ideas and projects that can create changes, raise awareness of social challenges and inspire citizens to participate. Further, CCP serves as a hub for linking governmental bodies, citizens, and private-public communities to create and deliver public value.

The concept of civic crowdfunding, itself, is not a novel phenomenon. It refers to funding civic projects- innovative or public-interest initiatives with social purpose, which are sourced from the crowd. Public fundraising for constructing the site and the pedestal of the Statue of Liberty in 1884 is constantly cited as one of the earliest examples of civic crowdfunding campaigns. The crowdfunding campaign lasted 6 months and resulted in \$100,000 cumulative funds from over 120,000 individual micro-donations (Griffiths et al., 2017). Since the late 19th century, crowdfunding mechanisms have supported cultural institutions in expanding cities to build theatres, swimming facilities, and local parks (Wenzlaff, 2020). However, the advent of the Internet and the

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proliferation of platform-based models generate a novel, nearly frictionless gateway, by removing temporal, and spatial boundaries enabling ordinary citizens to simply propose and support civic projects. CCPs promote principles of democracy, transparency and accountability, and facilitate turning citizens from users to actors in improving their local environment (Oliva, 2018). In 2012, Spacehive launched as the world's first crowdfunding platform for civic projects in the UK and since then, CCPs are increasingly being introduced in different countries across the globe such as ioby (in the US), Voor je Buurt (in Netherlands) or Place2Help (in Germany). In addition to these platforms that are dedicated to civic projects, almost all pioneer international crowdfunding platforms such as GoFundMe, Kickstarter, and Indiegogo have introduced project sections focussing on civic purposes (Davies, 2015). The success rate of civic campaigns are varied from 55 % to 80 % but based on the European Crowdfunding Network report, in case public authorities partner with CCPs or once they commit to supporting the crowdfunding scheme, the overall success rate of funded projects increases considerably to 80-90 % in average (Passeri, 2018).

The benefits of CCPs are significant and diverse ranging from solving local problems (Seltzer and Mahmoudi, 2013), to inspiring participatory volunteering movements (Stiver et al., 2015), to co-creating community or quasi-public assets (Davies, 2015), to improving community cohesion and resilience (Griffiths et al., 2017), or even shaping collective actions toward sustainable future. Moreover, CCPs enable a more proactive approach to civic engagement, providing an opportunity for citizens to take an active role not only in contributing to projects that reflect their own values and areas of interest but also a way to foster their partnerships with local authorities and businesses to promote the development of communities. Undoubtedly, CCPs can achieve their missions only if the crowd (in this case: citizens) actively participate in backing and funding civic projects. Citizen participation is indeed crucial for platform success, campaign achievement, and actualizing social positive impacts. Successful CCPs, as a multi-sided platform, require the collaboration of project owners, local authorities and supporters, however, in this study we focus on supporters' participation who financially back the projects.

While we witness an increasing number of CCP campaigns over recent years, surprisingly there is a lack of literature on theorizing key mechanisms that affect citizens' participation in civic crowdfunding projects (De Crescenzo et al., 2021). Few studies on this area (e.g., Baccarne et al., 2020; Kusumarani and Zo, 2019) are mainly conceptual or qualitative and have used limited, broad abstract concepts such as extrinsic and intrinsic needs or financial and non-financial rewards that may lead to poor understanding of the main mechanisms that can explain why citizens support civic crowdfund projects. These studies recognize various benefits that citizens pursue by engagement in civic crowdfunding projects such as improving society (Baccarne et al., 2020), addressing public concerns (Logue and Grimes, 2022), enhancing personal life (Stiver et al., 2015), emotional and ethical returns (Hollow, 2013), feeling making difference (Griffiths et al., 2017), and community building (Kusumarani and Zo, 2019). More importantly, we know almost nothing about CCP's non-participants including potential freeriders and the reasons behind their decision and behaviour. While non-participants typically constitute a large percentage of audiences (Phang et al., 2015), it becomes more crucial to understand their rationale for stimulating the big pool of observers' contributions. Furthermore, CCP's campaigns generally lead to non-excludible benefits through common, non-rival goods or services (Wenzlaff, 2020) that would provoke the free-riding problem: the campaign's outcomes can be enjoyed by all, even for those who do not contribute (Phang et al., 2015). These backdrops lead us to ask what shapes citizens' decisions about contributing or not contributing to a civic crowdfunding project and how these mechanisms can be divergent in CCP supporters and nonsupporters. Answering these questions is important to both academics and practitioners interested in citizens' participation in socially or locally meaningful missions, mediated by a novel infrastructure of CCP.

Limited literature on civic crowdfunding (e.g. Charbit and Desmoulins, 2017; Dai and Zhang, 2019; Griffiths et al., 2017) found that citizens may participate in CCPs for multiple reasons. For instance, a citizen might contribute to building a public park in the local neighbourhood for simultaneously self-interest reasons (enhancing the quality of her life), altruistic reasons (improving the quality of other people), and/or for being part of the community (sense of belonging) as well as creating an image for herself. In light of this, we deem participating in a CCP as a multifaceted complex behaviour and suggest that there are multiple, equally valid paths for explaining citizens' participation or non-participation behaviour. Relevant studies in similar contexts predominantly focus on two human aspects of morality and rationality when examining social movements. Whereas scholars who consider contribution behaviour being driven by moral motives and altruistic values (e. g. Cuadrado et al., 2016; Steg and De Groot, 2010; Van Riper and Kyle, 2014) typically utilize Value-Belief-Norm (VBN) theory (Stern et al., 1999), researchers with rational cognitive orientation consider such behaviour as a self-interest driven action that can be explained by Theory of Planned Behaviour (TPB; Ajzen, 1991). Applying either moral or rational approaches has proven to be helpful in understanding and theorizing citizens' social movement and engagement (Skarmeas et al., 2020), however, due to the complexity of human behaviours and the reasons driving them, several studies have integrated these two theoretical lenses to examine different phenomena such as proenvironmental behaviour (e.g. Carfora et al., 2020; Han, 2015), recycling (Onel and Mukherjee, 2017), consuming local products (Chen, 2020) or supporting a local project (López-Mosquera and Sánchez, 2012). We thus draw on both theoretical aspects into one unifying conceptual framework to combine them for explaining and predicting citizens' backing behaviour in the CCP context. By integrating insights from these two theoretical lenses, rather than using them separately, we intend to enrich our understanding of the process leading to participating (or not-participating) in CCPs.

This study, therefore, to better capture the multifaceted nature of citizens' participation behaviour, utilizes the theoretical multiplicity approach (i.e. applying multiple theoretical lenses) as well as configurational multiplicity perspective (i.e. the existence of multiple configurations explaining the phenomenon of interest) proposed by Park et al. (2020). Built upon the theoretical multiplicity and configurational approach, we employ qualitative comparative analysis (Fiss, 2011; Ragin, 2008) to explore and examine the patterns of conditions (configurations) that lead to citizen participation behaviour. Fuzzy-set qualitative comparative analysis (fsOCA) allows us to dig deeper into data to obtain a more nuanced view of how the interplay of conditions could shape our outcomes of interest. Furthermore, by using fsQCA, we seek to identify asymmetric relationships in the configurations of conditions which lead to citizen participation and not participation in CCPs. fsQCA is applied to a sample of 537 UK citizens to uncover different sets of participants, not participants, and free-riders in CCPs.

The primary contribution of this research relates to strengthening our understanding of different configurations that explain citizens' heterogeneity in supporting or not supporting CCPs. Previous research has identified various motives in contribution behaviour but paid little attention to how those antecedents might combine differently to shape the outcome of interest (here: participating in CCPs). Thus, we take a question-driven approach to ask, "What are different paths that can explain citizens' decisions in supporting or not supporting CCPs?" Of particular interest in the findings is the combination of moral and rational perspectives that shape the heterogeneity of citizens' participation decisions. While some pathways toward citizens backing civic crowdfunding campaigns are more justified by the VBN lens, others are better aligned with TPB and more importantly, some others can be explained only with the combination of both theoretical lenses. The results thus are supportive of our conceptualization for using VBN in conjunction with TPB to better explain the underpinning routes that shape citizen contribution behaviour. Our findings acknowledge that not all supporters are morally motivated, instead, some backers' behaviour can be better explained by their self-interest motives or rational considerations. On the contrary, norms and attitudes are not absent for all non-supporters, but some are sceptical citizens who doubt the CCP's function and its capability to achieve the expected outcomes.

This study extended the literature by proposing an integrative understanding of citizens' behaviour in supporting CCPs and unfolding this complex notion by widening the theoretical lens through which this behaviour is observed. We also advanced our understanding of these two theories in the CCP context by unveiling citizens' participation behaviour that cannot be explained by either VBN's or TPB's presumptions in isolation. Moreover, applying fsQCA enabled us to propose several configurational recipes for participation and non-participation behaviours by combining underlying factors, rather than following a conventional symmetrical approach. Our research also adds to the few studies' positions (Griffiths et al., 2017; Stiver et al., 2015) and argues that CCP participants can be self-centred supporters, who collaborate on projects that resemble their own interests or needs. More importantly, our findings provide a theoretically grounded explanation of the nature of non-participants, who are far less understood than contributors in the existing literature. Specifically, through configurational analysis, our study finds that non-participants might be potential free-riders or CCP non-believers. From empirical standpoint, our study reveals that there are different clusters of citizens with various motivation mechanics, thus CCPs need to have different promotion plans to actively attract and engage them.

The remainder of this paper is organized as follows: We first present the theoretical background and conceptual model of this study. We then explain the methodology and analysis results. The paper concludes by presenting the discussion, implications, and future directions.

#### 2. Theoretical background

#### 2.1. Participating in civic crowdfunding platforms

The relative advantage of digital platforms in creating new forms of social connections and values, by building stronger networks and communities has received increasing attention among scholars, practitioners, and the general public (Delgosha and Hajiheydari, 2020). By overcoming spatial, temporal, and other barriers that constrain interactions (Spagnoletti et al., 2015; Haz et al., 2018), digital platforms facilitate socio-economic relationships, which eventually empower collaborative and sharing environments (Tiwana et al., 2010). Today, the incredible power of digital technologies in facilitating crowd participation is not anymore limited to exchanging commercial goods and services but also public goods, services, and values. Social Mission Platforms are a special type of digital platform, which provide technological infrastructure and institutional arrangements to manage and coordinate their users' loosely coupled relations toward creating shared values and resolving social challenges (Logue and Grimes, 2022). Although similar to other platforms, Social Mission Platforms create value by building an ecosystem (de Reuver et al., 2018; Delgosha and Hajiheydari, 2020; Jacobides et al., 2018), their mission goes beyond profitably matching supply and demand sides (Täuscher and Laudien, 2018). By creating novel and more democratic mechanisms, Social Mission Platforms leverage the power of the crowd to enable social innovations and deliver shared public value.

This study focuses on civic crowdfunding platforms as a particular use case of Social Mission Platforms. CCPs' primary aim is crowdfunding projects that produce quasipublic or community assets or services (Davies, 2015). Citizens participate in CCPs (such as ioby in the US or Spacehive in the UK) to fund a civic project that they like, see that it may create local impact or if it resonates with them and their values. Typically, civic crowdfunding platforms raise capital for a range of diverse projects such as public parks, community centres, transport infrastructure, swimming pools, public festivals and education programs (Davies, 2015). This diversity explains that citizens can participate in civic crowdfunding projects for accommodating varied needs.

There are several reasons for the increased attention being paid to such a specific type of platform for civic project funding. First, CCPs facilitate flexible and expandable community support for funding publicly beneficial projects (Davies, 2015), making this fundraising style interesting for increasing numbers of project initiators. Second, CCPs achieve more than financial value as it enables non-financial benefits such as encouraging collaboration between citizens and local government (Stiver et al., 2015). Third, civic fundraising campaigns are expected to contribute toward reducing social inequality, improving local amenities and well-being, and increasing social cohesion in communities (Charbit and Desmoulins, 2017). Fourth, there is a trend of government withdrawal and cutbacks and a growing demand for citizens to take an active role in the improvement of their neighbourhood and building long-term community resilience. Taken together, these reasons can justify how Spacehive raised £25 m for funding 1950 successfully delivered projects in the past few years.<sup>1</sup>

Prior work has largely focused on users' participation in rewardbased crowdfunding platforms (e.g., Chen et al., 2016; Cho and Kim, 2017; Roma et al., 2017; Zhao et al., 2017; Wang and Yang, 2019) and more recently, on donation-based crowdfunding (e.g., Chen et al., 2019; Zhang et al., 2020). Furthermore, previous studies on social crowdfunding have considered different underlying factors such as pledging a higher amount of money that would ignite professional investors' interest (Roma et al., 2017), the impact of third-party endorsements on the success of projects (Saluzzo and Alegre, 2021), or promise of blockchain in enhancing transparency, reliability, and trustworthiness of crowdfunding campaigns (Nguyen et al., 2021). Another stream of research more broadly theorises the effects of the project creator, the backers, the campaign itself, the crowdfunding platform, and the outcomes of crowdfunding campaigns in promoting sustainable initiatives (Petruzzelli et al., 2019) or analyses a case to propose a framework of interactions among different stakeholders of Social Crowdfunding Business Ecosystem (Presenza et al., 2019). Although these studies contribute to our understanding of the social crowdfunding concept, its importance and success factors, in this study, we focus on a specific type of crowdfunding with public product and service outcomes and we intend to shed light on citizens' participation and non-participation behaviours.

Due to the unique characteristics of CCPs, we suggest that influential factors that drive citizens to participate in civic crowdfunding projects are different. While investors spend money on reward-based campaigns to receive a tangible reward and to maximise their expected utility from funding (Dai and Zhang, 2019) or donors support a campaign for philanthropic reasons, there is a debate about the actual drivers of participating in a CCP. Research advocates both prosocial orientation and selfregarding motives to explain participation in a CCP. From one angle, citizens get involved in funding civic crowdfunding campaigns for a diverse range of philanthropy reasons: to benefit their society and address public concerns (Logue and Grimes, 2022), to pursue placebased projects and to improve other people's wellbeing (Charbit and Desmoulins, 2017), to increase the quality of life and social cohesion within a community or neighbourhood (Griffiths et al., 2017) or because they feel ethical responsibility (Hollow, 2013). These reasons are comparable with conventional prosocial behaviour motives that aim to benefit others rather than benefit the self (Twenge et al., 2007). On the other hand, research (e.g., Sebag-Montefiore, 2013; Stiver et al., 2015) suggest that engaging in CCPs is not merely altruistic, as the outcomes of funding civic crowdfunding campaigns suit local backers and their geographically proximate community. Hence, unlike pure charity-based crowdfunding, civic crowdfunding projects are beneficial for backers

<sup>&</sup>lt;sup>1</sup> Official Spacehive website https://www.spacehive.com/about (18/07/2022)

and their local neighbourhoods, so some degree of self-interest is involved in shaping citizens' decisions and behaviour (Stiver et al., 2015).

Taken together, we argue that participation in CCPs is a multifaceted, complex phenomenon that cannot be thoroughly understood and explained by a single theoretical lens. Therefore, to develop a more meaningful and multi-faceted understanding of citizen participation in a CCP, we draw on theoretical multiplicity and configurational approaches. These approaches allow us to uncover how complex causal patterns of socio-psychological characteristics can explain citizens' participation behaviour in a CCP. Grounding on Stern et al. (1999)'s Value-Belief-Norm (VBN) theory, we expect that once a citizen accepts the civic crowdfunding project's values, believes in the benefits of the project's outcomes for the community and has a sense of obligation, s/he is likely to participate in civic crowdfunding campaigns. In addition, scholars maintain that self-interest motives provoke rational decisionmaking and suggest using rational-choice models such as theory of reasoned action or theory of planned behaviour (e.g., De Leeuw et al., 2015; Han, 2015; Zhang et al., 2017) for studying human rational behaviours. Accordingly, we integrate TPB as a well-researched model of human behaviour (Ajzen, 1991) and VBN theory as a robust lens for explaining behaviours with other-interest orientations to identify mechanisms deriving citizens to participate or not participate in CCPs.

#### 2.2. Value-belief-norm theory

VBN is theoretically rooted in Schwartz (1977)'s Norm Activation Model (NAM), which is originally developed to study prosocial behaviours. NAM comprises three major concepts including activators (responsibility and awareness), individual norms, and intention to act prosocially that psychologically illustrate the formation of altruistic behaviours. According to NAM, personal norms, ascription of responsibility, and awareness of consequences explicate prosocial behaviour. Later, Stern et al. (1999) proposed the VBN framework that integrates Schwartz's value theory and emerging environmental/ ecological worldview into the NAM. They involved two facets of Schwartz's value theory (self-transcendent versus self-enhancement) in the VBN framework. The first dimension or self-transcendent, which reflects benevolence and universalism, expresses apprehension for the welfare or interests of others. In contrast, self-enhancement value orientation covers hedonism, power and achievement preferences that affirm the maximization of individuals' personal interests and benefits. VBN also links the new environmental paradigm as a preceding factor for the awareness of consequences and ascribed responsibility.

Broadly speaking, VBN adds personal values and contemporary environmental perspective to NAM in order to unfold pro-environmental behaviour and explain why individuals support the environmental movement (Andersson et al., 2005). According to VBN theory, individuals' intention to present pro-environmental behaviour is determined by individuals environmental norms; values, ecological worldview, awareness of consequences, and ascribed responsibility (Han, 2015). In a similar spirit, we argue that the moral obligations of citizens for backing a civic crowdfunding campaign, their social worldview, perceptions of the outcomes, and feeling of responsibility in terms of what is happening in their neighbourhood/society are the foundations for their decision and behaviour. We therefore incorporated VBN as one of the promising theories in our theoretical multiplicity approach for examining citizens' participation in CCPs.

#### 2.3. Theory of planned behaviour

Although morality is deeply integrated into altruistic behaviour motives, human rational-choice models cannot be overlooked in citizens' decision-making process (Han, 2015), when they are inclined to support a civic campaign. Studies on prosocial behaviour have reported increased predictability by including intention and behavioural control

(Onwezen et al., 2013). While VBN posits that moral obligation (personal norm) is the ultimate predictor of behaviour, rational-oriented theories discuss that individuals' perception of the presence of appropriate circumstances is the main determinant (Kaiser et al., 2005). Given this, individuals evaluate the situation for the behaviour in question and based on the rational decision-making process they decide about presenting the behaviour.

In behavioural studies, human choice and rational behaviour are widely explained by Theory of Planned Behaviour (Ajzen, 1991). Derived from the theory of reasoned action (TRA, Fishbein and Ajzen, 1977), TPB posits that people's rational behaviour is primarily determined by their intention. TPB extends TRA by including the perception of possessing control, ability or resources needed for specific behaviour. While TRA considers attitudes and subjective norms as the two main antecedents of intention, TPB postulates that besides attitude and subjective norms, perceived behavioural control is salient in forming a behaviour. Hence, from TPB standpoint, behavioural, normative, and control beliefs are three main determinants that shape intention toward a specific behaviour.

TPB is 'one of the most influential theories in explaining and predicting behaviours' (Pavlou and Fygenson, 2006 p. 117) and many scholars have used it as a robust theory. It has been long used in different related settings such as green purchase behaviour (Yadav and Pathak, 2017), environmental behaviour (Greaves et al., 2013), volunteering (Marta et al., 2014), political crowdfunding (Baber, 2020), and reward crowdfunding (Shneor and Munim, 2019). In this light, we incorporated TPB, a rational-choice model for participating in a CCP, into our research model. As per TPB, three sets of beliefs about backing civic crowdfundings, formulate citizens' behavioural intentions. Citizens' faith in backing the civic campaign (attitude), beliefs regarding others' attitudes toward helping through the civic campaign (social norms) and beliefs about their own ability to contribute to the civic campaign (perceived behavioural control) determine their contribution behaviour.

We have compared TPB and VBN- two extensively used behavioural lenses- in Table 1. While TPB grounds its discourse on the presumption that human makes reasoned decisions to engage or not engage in a specific behaviour (Kaiser et al., 2005), perceptions about moral obligations are the main drivers of behaviour based on VBN (e.g. Chen, 2020; Turaga et al., 2010). Therefore, we expect that TPB has a higher predictive power in rational decisions, however, VBP can better explain altruistic behaviours (Onel and Mukherjee, 2017). VBP is criticized for neglecting external and contextual factors —either actual or

Table 1

Value belief norm theory vs theory of planned behaviour.

	VBN	ТРВ			
Main constructs	Values, new ecological paradigm, awareness of consequences, ascription of responsibility, personal norms	Attitude, subjective norms, perceived behavioural control			
The core focus	Values and moral norms	Rational process shaping human decisions and behaviours			
Previously highlighted applications	Altruistic behaviours, especially in pro-environmental settings	Universal behaviours, especially rational- focused decisions			
Reported explanatory power	Acceptable for altruistic settings	Good for rational settings			
Immediate antecedent of behaviour	Personal norm	Intention			
Main limitation	Overlooking external and contextual factors	Neglecting to assess moral norms, especially in altruistic settings			
Similarities Both have been largely used in understanding human behaviour and both acknowledge the impact of persona on behaviours					

perceptual— and TPB's limitation is rooted in ignoring human moral norms in decision-making (Kaiser et al., 2005). To widen the theoretical lens that grants us more explanatory power, and to address the limitations of each theory, in this study, we ground our theoretical framework on the combination of both. More importantly, we discuss that participating in a CCP is involved both altruism and rationality. Hence, using a VBN in conjunction with TPB would provide a more thorough understanding of citizens' behaviour.

#### 2.4. Conceptual foundation and research model

The emergence of Social Mission Platforms presents an opportunity for contributing to local and social campaigns. In this study, we seek to understand and explain citizens' behaviour in association with CCPs. Because CCPs specifically aim to co-create public goods or to enhance social well-being, we find it relevant to include norms or feelings of moral obligation as an undeniable antecedent of citizens' behaviour when committing to participate in CCPs. However, as we discussed earlier, we need to involve rational-choice models to comprehensively understand backing CCP campaigns.

Our research suggests that configurations of multiple moral and rational motivations can explain citizen contribution behaviour. The configurations of theoretically relevant elements will offer new insights, advance and complement our knowledge about contribution and notcontribution behaviour in CCPs. Drawing on VBN and TPB theories, we propose three groups of socio-psychological conditions, including values (altruistic value, self-interest value, and collectivistic value), beliefs (social worldview, outcome efficacy, ascription of responsibility, and perceived behavioural control), norms (subjective norm, personal norm), and attitude that mutually explain why citizens fund civic crowdfunding campaigns. In the following section, each category of conditions is discussed based on the extant literature.

#### 2.4.1. Values: Self-interest, altruistic & collectivistic values

Not surprisingly, the notion of value -as a subjective sociopsychological concept- has provoked much debate. There are different but comparable indicators for the core concept of value such as broad attitudes, the concept of desirability, the cognitive foundation of individual preferences, or the basic input to individual intentional decisionmaking (Groot, 2008). Schwartz (2012) maintains that value has some fundamental functions: it determines individual action desirability or undesirability; it serves as a guideline for selecting or evaluating people, behaviours, and events; and it acts as social control, directing social roles (Feather, 1995; Türkkahraman, 2014). Schwartz (2010) argues that the dynamics of human values result from contrasting selfenhancement and self-transcendence standpoints, whereby people decide about the importance of their proself versus prosocial behaviours (De Groot and Steg, 2008). While self-transcendence focuses on how to be socially related to others and positively affect them, selfenhancement is associated with personal interests and developments (Schwartz, 2012). Logically, the more self-transcendence oriented values (Universalism and Benevolence) a person has, the more likely she present prosocial behaviour.

Previous studies (e.g., Schultz, 2001; De Groot and Steg, 2009; Groot, 2008; Nolan and Schultz, 2015), and VBN theory (Stern et al., 1999) suggest that three value orientations influence engaging in contribution behaviour: self-interest, altruistic, and collectivistic values. Environmental studies consider the biosphere as a sentimental concern of humans for the nature and environment, yet, we use the concept of psychological collectivism introduced by Jackson et al. (2006) as citizens' collectivistic value. Collectivists give priority to the desires and needs of the group or society over the goals and needs of each individual. Altruistic individuals act selflessly, promote others' welfare or benefit them at their personal cost. Individuals with self-interest value orientation weigh the costs and benefits of participating in social movements. They contribute to collective actions if the expected self-interest benefits

exceed the potential costs. Accordingly, we suggest citizens with altruistic values are more concerned about other citizens' interests and contribute to civic campaigns to help others, whereas citizens with collectivistic values are more concerned about the social or local issues, and their neighbourhood problems, and self-interested citizens just support civic campaigns which are advantageous for them. Each of these three value orientations might provide foundations for explaining citizens' participation behaviour. For instance, a citizen may contribute to a campaign for developing a local park project because it improves the quality of life of herself (self-interest), or because it enhances the local community, the quality of life of other people or helps to realize other citizens' dream (altruistic), or because it promotes social welfare (collectivist). Accordingly, we believe these three value orientations individually or mutually affect citizen decisions in backing a civic campaign.

# 2.4.2. Beliefs: Social worldview, outcome efficacy, ascription of responsibility & perceived behavioural control

Based upon VBN, three faith-related constructs are important for explaining an individual's prosocial decision-making: ecological perspective, awareness of consequence (outcome efficacy), and ascription of responsibility (Kiatkawsin and Han, 2017; Steg and De Groot, 2010; Vining and Ebreo, 1992). Instead of the ecological viewpoint or new environmental paradigm used by Stern et al. (1999) for investigating environmental movements, we incorporated the concept of the social worldview which is more relevant to social movements. We define this notion based on the threatening and competitive-jungle social situations proposed by Duckitt and Fisher (2003). In the context of social movements, social worldview refers to the general belief of citizens about the society in which they live. In line with VBN, we argue that when citizens believe their society is imbalanced, unfair or in trouble, they would act in a way that could help to resolve these issues. As a result, an important step for activating norms is perceiving that something in society needs attention or corrective action. We also consider outcome efficacy as being aware of the positive potentiality of citizens' actions and contributions (in our case backing civic crowdfunding) in making things better for society. Outcome efficacy simply refers to believing that contributing to a civic crowdfunding campaign can positively change something or improve the condition of society. Finally, the ascription of responsibility signifies the 'feelings of responsibility for the negative consequences of not acting prosocially' (De Groot and Steg, 2009, p. 426), which means that people admit their personal responsibilities for social problems. Put differently, in the case of perceiving a problem in society (i.e., social worldview) and being confident about the consequences of contributing (i.e. outcome efficacy), if citizens feel responsible regarding the issues, we expect their norm activates and they participate in CCPs. We also included perceived behavioural control in our model because based on the TPB, it is an immediate antecedent of similar behaviour (e.g., De Leeuw et al., 2015; Yao and Enright, 2020). Without confidence in own ability and perceived control over the behaviour, a citizen is less likely to divulge the tendency for participating in CCPs. We thus consider the combination of citizens' fundamental beliefs (social worldview, outcome efficacy, ascription of responsibility) and the confidence in their ability to participate (Perceived Behavioural Control: Ajzen, 2002) as the faithrelated factors in our research model.

#### 2.4.3. Social norms, personal norms & attitude

The influential role of normative forces has been widely recognised in the context of attitude formation theories (e.g. Ajzen, 2011; Fishbein and Ajzen, 1977). Complying with the internalised personal norm or social norm is also discussed as a subtle but prominent internal reward for human behaviour (Batson and Shaw, 1991). Both subjective and personal norms are long-considered to be salient in individual behavioural intention, as they represent morality. Schwartz (1977) argues that personal norms represent the feelings of a moral obligation to execute a certain behaviour (here participating in a CCP) and are connected to self-image. Participating in a CCP is associated with feelings of pride (Onwezen et al., 2013), or generally feeling a moral obligation to help society.

While personal norms reflect internal moral obligations toward collaborating in a CCP, the subjective norm is mainly related to the individual's perception of social pressure for showing a specific behaviour (Ajzen, 2011). The salient effect of subjective norms —as social pressure arising from others' expectations for acting socially responsible- on shaping individuals' behaviours has largely been discussed in the literature (e.g., Zhang et al., 2017). Moreover, behavioural theories like TPB posit that users' behaviour can be explained by their attitude toward behaviour. Generic personal feeling about helping in a civic campaign is considered as an attitude toward participating in CCPs. Attitude is discussed to be an important antecedent of behaviour, whilst individuals' beliefs function as informational grounds that influence their behaviour, favourable attitudes toward participating in a CCP can stimulate citizens' behaviour (Yao and Enright, 2020). Consistent with studies on human logical behavioural intention (Austin and Vancouver, 1996; Fishbach and Ferguson, 2007), we suggest that attitude plays a critical role in predicting and regulating behavioural intentions (in this study: funding civic crowdfunding campaigns). We, therefore, incorporated these theoretically relevant factors in our configurational model (Fig. 1) to see how the combination of values (self-interest, altruistic, and collectivistic), beliefs (social perspective, outcome efficacy, ascription of responsibility besides perceived behavioural control), norms and attitude can predict citizens' backing CCPs. Fig. 1 presents the configurational model of this study, explaining different causal patterns of influential factors that stimulate collaboration in CCPs. This theoretical framework examines citizens' funding behaviour in a CCP through a parsimonious and comprehensive approach that combines the lenses of two influential human behaviour theories: TPB and VBN. Our intention is to unify, rather than utilize these two theories in isolation, to provide an integrated model that adequately explains citizens' participation and non-participation in CCPs. By participation in this study, we refer to financially backing campaigns in CCPs by citizens.

#### 3. Methodology

#### 3.1. Survey instrument

We used existing scales to measure self-interest, altruistic, perceived behavioural control, subjective norm, ascribed responsibility, personal norm, outcome efficacy, personal norm, and behavioural intention. We adapted these scales to fit the context of civic crowdfunding (Appendix A). The psychometric properties of these constructs have already been

tested by several empirical studies (e.g., De Groot and Steg, 2009; Han, 2015; Steg and De Groot, 2010). In addition, we developed collectivist and social worldviews based on prior studies and operationalised them as four-item and five-item reflective constructs, respectively (Appendix A). Specifically, we measured self-interest, altruistic, and collectivist values via four items with seven-point scales from "extremely not important" (1) to "extremely important" (7). Attitude toward participating in CCPs was measured by four items on a seven-point scale. To reduce the likelihood of common method variance (CMV), we employed different Likert scale responses for the measurement items of attitude, ranging from foolish, unpleasant, harmful, and bad (1) to wise, pleasant, beneficial, and good (7). Measures for social worldview (five-item), perceived behavioural control, subjective norm, ascribed responsibility, outcome efficacy, and personal norm, were assessed via a seven-point Likert scale from "strongly disagree" (1) to "strongly agree" (7). We measured willingness to participate in CCPs by evaluating two items: one hypothetical and one actual contributing outcome. First, participants were presented with three randomly selected campaigns and we asked them (a) whether they looked forward to contributing to each of the three campaigns (seven-point scale ranging from "strongly disagree" to "strongly agree"), and (b) how much they voluntary contribute (0-100 pence). We offered respondents an additional £1, of which they could donate any (or no) amount to the selected campaign. Respondents kept any portion not donated. To reduce the potentially confounding effects of other factors shown to affect participation decisions, such as knowledge of a project's progress toward its funding goal (Koo and Fishbach, 2014), respondents were presented only essential campaign information including the title, 300-word description of the idea, and funding goal in a standardized format. The instrument was reviewed and pre-tested by three academics and three experienced citizens who participated in funding civic projects. Based on the experts' feedback, we made minor changes regarding the wording, typo errors, phrasing, and layout of the survey instrument.

#### 3.2. Data collection

In their study, Charbit and Desmoulins (2017) report that Anglo-Saxon countries take the lead on civic crowdfunding practices and have well-established cases in this area. We thus employed a research panel company in the UK with >5 million worldwide panellists as it allowed us to target a broader range of the qualified sample. Data were collected using a web-based survey in October 2019. Our primary criterion for survey respondents was that their age to be over 18, from different demographic categories in the UK. The panel company guaranteed the quality of the panellists' responses since they are committed to following ethical, methodological, and regulatory routines for



Fig. 1. Research model for behavioural configuration in explaining citizen participation

sampling and collecting data.

Eligible participants completed an online survey via Qualtrics. The questionnaire consisted of an introductory letter, a concise description of civic crowdfunding, three randomly selected civic crowdfunding campaigns, questions on demographics, and measures for study constructs. We followed Podsakoff (2003)'s guidelines to apply some procedural remedies for decreasing potential common method variance. For instance, on the questionnaire's cover page, we emphasized that data would remain confidential, the results of this survey are only for academic purposes, and the respondents' information would be anonymous. We used some reverse-coded items and diversity in item anchors for designing the questionnaire. In total, 3125 respondents were contacted, out of which 537 valid questionnaires were collected (a 17.2 %response rate). Women represented 51.9 % of respondents, and the average age of respondents was 41.0 years (s.d. = 14.9 years). To assess the nonresponse bias (Armstrong and Overton, 1977), we compared the early and late respondents, which is, respondents who filled out the questionnaire during the first week and those who responded in the last week of the survey. Results of the *t*-test on these two groups did not reveal any significant differences in terms of demographic specifications, their previous experience of participating in CCPs, and their willingness to participate. Table 2 Presents the demographic details of the respondents.

#### 4. Data analysis

#### 4.1. Measurement model

We used SmartPLS Version 3.2.8 to assess the reliability and validity of the measurement model (please see Table 3). Since new constructs were developed in our model, we first conducted an exploratory factor analysis involving all multi-item measures using principal component analysis with varimax rotation. We identified 10 factors with eigenvalues >1.0. All of the items loaded highest onto their own construct compared to other factors, indicating the convergent validity of our constructs. Together, all 10 factors explained 71.56 % of the total variance. Then, we performed confirmatory factor analysis to test the convergent and discriminant validity of the measurement model. We examined the convergent validity by using four criteria: internal consistency of constructs, composite reliability, Cronbach's alpha, and average variance extracted (AVE). As Appendix A presents, the standardized path loadings of measurement items on their related constructs were all significant and >0.7. Composite reliability and Cronbach's  $\alpha$ values were >0.7 showing constructs reliability. Also, each construct's AVE was greater than the cut-off value of 0.50 (Table 3), indicating that >50 % of the variance observed in the items was explained by their latent constructs (Fornell and Larcker, 1981).

#### Table 2

#### Demographic variables.

	n	%	Education	n	%
Age					
Under	124	23	No diploma	97	18 %
25		%			
25–35	185	35	College degree	148	28 %
		%			
35–45	133	25	Undergraduate	169	31 %
		%	degree		
45–55	79	15	Postgraduate degree	112	21 %
		%			
>55	16	3 %	Doctorate	11	2 %
Gender					
Female	279	52	Income	in GBP (£)	
		%			
Male	258	48		Mean =	SD =
		%		31.400	13.600

We established discriminant validity of the measurement model by the Fornell–Larcker (1981) test: comparing the square root of AVE of each construct with the correlations between the particular construct and other constructs. As Table 3 shows, the square root of AVE for each construct (diagonal term) was greater than the correlations between the construct and other constructs (off-diagonal terms). We additionally used the heterotrait-monotrait (HTMT) ratio of correlations to assess the discriminant validity, as a relatively new measure suggested by Henseler et al. (2015). All the HTMT ratios were below the cut-off point of 0.90 (0.117 to 0.735), thus, the discriminant validity of the measurement instrument is supported.

Furthermore, we tested the presence of common method variance (CMV) in our data by using Harman's single-factor test (Podsakoff, 2003) and marker-variable technique (Lindell and Whitney, 2001). Unrotated factor analysis showed that the first factor accounted for 31 % of the total variance. For the marker-variable technique, we used a theoretically irrelevant construct (a marker variable) to check the correlation among the main constructs. The low correlation between the main constructs and the marker variable (here liking sporting) confirms that the common method is not an issue. In addition, the principal component analysis with oblique rotation showed that each emergent factor explained an almost equal amount of the total variance, ranging from 8.96 % to 12.85 %. Thus, common method variance is not a major concern in this study. Overall, the results of these tests indicate that our measurement model has good psychometric properties.

#### 4.2. Data analysis using fsQCA

As noted above, we adopt a configurational multiplicity approach and fsQCA, which enables us to better capture the multifaceted nature of citizen participation behaviour in CCPs, to explain and analyse heterogonous reasons for deriving this phenomenon. In our configurational theorizing, we seek to understand how or why multiple conditions combine into distinct configurations shaping citizen contribution behaviour. Over recent years, researchers have increasingly suggested that the conventional 'net effect' perspective which overlooks asymmetrical, mutual relations of conditions, is not appropriate for investigating complex phenomena (Hajiheydari et al., 2021; Fiss, 2011; Liu et al., 2017). fsQCA goes beyond conventional, regression-based methods by uncovering and examining multiple configurations of conditions forming the same outcome (Delgosha et al., 2020). By considering attributes of cases as sets rather than correlations or net effects (Misangyi et al., 2017), fsQCA allows us to explicate the emergent links between the combination of the antecedents and our outcome of interest in terms of conjunctural, equifinal, and asymmetric elements (Llopis-Albert et al., 2021;). Conjunction implies that outcomes can be explained by considering congruent combinations of conditions. Equifinality means that different combinations of conditions can form the outcome (Misangyi et al., 2017). Asymmetry implies that conditions for the occurrence of the outcome (participate) are not necessarily inverse of conditions of its non-occurrence (~participate), which means they can be two different phenomena requiring separate theoretical and empirical consideration (Greckhamer, 2016).

To conduct fsQCA, first, all attributes and outcome values need to be calibrated into fuzzy set membership scores. We used fsQCA direct method calibration (see Ragin, 2008), where the researcher specifies three qualitative anchors of full membership, full non-membership, and crossover point (i.e., neither "in" nor "out" of the set, Delgosha et al., 2020). In our seven-point scale, we set full membership anchor at the value of 6 in; the full non-membership anchor at the value of 2; and the cross-over point at the value of 4. The two items that we used for measuring the outcome of interest (likelihood of contribution and voluntary contribution amount) were highly correlated (0.87), we thus normalized and averaged the values to construct the outcome (willingness to participate). For calibrating this continuous variable, we used a common rule and set the anchors on the 5th percentile (lower-

#### Table 3

Validity and reliability results.

,													
Factors	CA	CR	AVE	1	2	3	4	5	6	7	8	9	10
Attitude	0.81	0.82	0.71	0.85									
Social norm	0.89	0.81	0.73	0.26	0.91								
Personal norm	0.83	0.85	0.81	0.45	0.33	0.83							
Perceived behavioural control	0.85	0.87	0.83	0.32	0.35	0.45	0.92						
Social worldview	0.79	0.82	0.74	0.41	0.19	0.47	0.55	0.92					
Outcome efficacy	0.9	0.83	0.83	0.26	0.49	0.67	0.57	0.51	0.87				
Ascribed responsibility	0.87	0.9	0.75	0.21	0.5	0.34	0.43	0.49	0.53	0.85			
Self-interest	0.82	0.84	0.77	0.18	0.37	0.21	0.25	0.07	0.12	0.09	0.91		
Alturistic	0.9	0.92	0.76	0.5	0.51	0.16	0.35	0.29	0.51	0.14	0.42	0.93	
Collectivist	0.83	0.86	0.81	0.03	0.13	0.24	0.14	0.23	0.07	0.25	0.35	0.37	0.9

threshold), 95th percentile (upper-threshold) and 50th percentile (crossover point) values according to PDF results (Douglas et al., 2021; Greckhamer et al., 2018; Pappas and Woodside, 2021). Please see Appendix B for the details of fsQCA calibration cut-offs. After that, all values were transformed into fuzzy set scores based on the log odds function embedded in the fsQCA software. To validate the robustness of our fsQCA calibration method, we further examine the sensitivity of the results to the calibration parameters, using other fully-out, fully-in thresholds and cross-over points of membership for the conditions and the outcome of interest. Following prior studies, we first used median +/- one standard deviation points (fully-in threshold at the median plus one standard deviation, the fully-out threshold at the median minus one standard deviation, and median for cross-over point), and apply this rule to all conditional factors. Second, we used mean +/- one standard deviation point, and third, we applied adjusted values (+/-0.25)threshold and cross-over values) to check if any significant changes were noted. In total, these checks showed that our fsQCA results are robust, only minor changes were observed in the peripheral conditions and the specific number of cases in the configurations, but there was a clear subset of relationships between conditions, and the interpretation of configurations remained largely unchanged.

Second, we conducted the necessity analysis. A necessary condition is a condition that needs to be present for the outcome to occur, but its presence does not guarantee the outcome (Ragin, 2008). In fsQCA, a condition is necessary when its consistency exceeds the threshold of 0.9 (Schneider and Wagemann, 2012). Our fsQCA necessity analysis indicated that none of the conditions is necessary for citizens' participation in CCPs.

Third, we built the fsQCA truth table as a data matrix which includes  $2^k$  rows with k representing the number of conditions, each column representing conditions and outcome, and each row representing a logically possible configuration. By building the truth table, we can capture all logically possible configurations of conditions leading to the outcome. However, these configurations have different distributions of data observations. Some of the configurations may have large proportions of data while others have rare cases or even may not include data. fsQCA uses Boolean algebra to reduce the truth table into a simplified manifestation of configurations that result in the outcome. We refined the truth table by setting two criteria of frequency and consistency thresholds (Ragin, 2008). Frequency indicates the number of cases for each possible configuration, and consistency, similar to the significance level in regression analysis, shows the extent to which a combination reliably leads to the outcome (Park and Mithas, 2020). Following Rihoux and Ragin's (2009) recommendation, we set 3 for frequency cutoff, to keep configurations with at least 3 observations as our sample was bigger than 150, and also 0.8 for consistency threshold to ensure achieving reliable solutions.

In the final step, we applied the Quine-McCluskey algorithm to logically reduce the truth table based on counterfactual analysis (Ragin, 2008). By using counterfactual analysis, fsQCA makes some simplifying assumptions, minimizes the number of elements in the truth table configurations and produces three types of solutions: complex,

parsimonious and intermediate. In this study, we focused on parsimonious and intermediate solutions (Ragin, 2008). Parsimonious solutions are generated by applying all simplifying assumptions (Rihoux and Ragin, 2009) and yield the most important conditions that must be occurred in all configurations. The intermediate solutions which lie in the middle of the complexity–parsimony continuum are produced by applying simplifying assumptions consistent with empirical evidence and researchers' theoretical knowledge (Rihoux and Ragin, 2009).

#### 5. fsQCA results

Configurations leading to citizens' participation and negation of participation in CCPs are shown in Table 4. In representing the configurations, we used the notation proposed by Fiss (2011) to distinguish between core conditions that have strong causal links to the outcome (part of both parsimonious and intermediate solutions), and peripheral conditions which have weaker causal relationships to the outcome (only part of intermediate solutions) (Pappas et al., 2019). In addition, overall consistency and coverage measures besides consistency, raw and unique coverage scores of each configuration are presented in Table 4. Consistency scores of all configurations are above the recommended threshold (>0.8), indicating that identified paths consistently led to the outcome. The overall solution coverage, similar to R<sup>2</sup> in regression analysis, measures the extent to which configurations explain the outcome (Mikalef and Pateli, 2017; Pappas et al., 2019). Further, raw and unique coverages measure the empirical relevance of each configuration. Raw coverage roughly computes the extent to which a configuration covers the cases of the outcome, whereas unique coverage gauges how uniquely a particular configuration captures cases having the outcome (Ragin, 2008). As shown in Table 4, the proposed paths are significantly relevant to explaining the outcome of interest in high and low paths, ranging from 3 % to 21 % of cases.

An overall solution coverage of 0.51 for participation behaviour shows a high empirical relevance of the seven configurations and the overall solution consistency of 0.85 indicates high consistently of these configurations link to the outcome (please see Table 4). Among seven configurations leading to citizens' participation, H1 and H2 have the largest raw coverage (0.21 and 0.15 respectively) meaning that they are empirically most relevant for high participation intention. Meticulously examining these two configurations reveals that H1 and H2 are largely identical, representing altruistic citizens who feel a high level of responsibility and attitude, and their personal norms are activated. The difference between these two configurations refers to the absence of collectivistic value in the H1, while the absence of self-interest in H2; social worldview is absent for H1 but it is a 'don't care' for H2; in H1 subjective norm is activated whereas H2 has perceived behavioural control over participation in CCPs. Hence, H1 and H2 both represent individuals with altruistic values who believe that citizens are equally responsible for what is happening in society, and their personal obligations to participate in a CCP are activated. However, while H1 and H2 are different in some other conditions such as subjective norm, perceived behavioural control and social worldview, they both describe

#### Table 4

Configurations for high and low participation behaviour.

Table 4. Configurations for high and low participation behaviour													
Conditions	Configurations for participation in CCP							Config	urations	ons for ~ participation in CCP			
Continuitions	H1	H2	$H_3$	H4	$H_5$	H6	H7	L1	L2	L3	L4	L5	
Self-interest		$\otimes$	•		$\otimes$		•	•	•		•	•	
Alturistic	•	•				٠	•		$\otimes$	$\otimes$	$\otimes$	•	
Collectivistic	$\otimes$		$\otimes$	•	٠	٠	•		$\otimes$	•		•	
Outcome efficacy	•	•	•	٠	•	•		•	•	$\otimes$	$\otimes$	$\otimes$	
Ascription of responsibility	•	•	$\otimes$	٠				$\otimes$	$\otimes$		٠	•	
Social worldwiew	$\otimes$		$\otimes$	•	٠	٠			$\otimes$	•		•	
Percieved behavioural control		٠	•		•	٠	•	•	•	•	$\otimes$		
Attitude	•	•	•		•		•	$\otimes$	$\otimes$	$\otimes$	$\otimes$		
Personal norm	•	•		٠		•	•	$\otimes$	$\otimes$		•		
Subjective norm	•		٠		$\otimes$	•	$\otimes$				$\otimes$		
Consistancy	0.88	0.86	0.93	0.91	0.85	0.83	0.91	0.92	0.87	0.88	0.91	0.85	
Raw Coverage	0.21	0.15	0.14	0.11	0.09	0.07	0.03	0.18	0.17	0.13	0.1	0.06	
Unique Coverage	0.1	0.07	0.05	0.04	0.03	0.01	0.01	0.09	0.08	0.05	0.02	0.01	
Overall solution consistancy				0.85						0.88			
Overall solution coverage				0.51						0.43			
Note : Black circles (•) indicate t	he preser	ice of a co	ausal con	dition, an	d (⊗) ci	rcles repr	esent the c	ubsence of a	causal cor	dition: big	circles = c	ore	

conditions; small circles = complementary conditions; Blank spaces indicate 'don't care'.

other-oriented citizens who feel responsibility for their society and are morally obliged to participate. H3 depicts self-interest, not collectivistic individuals who think CCPs can play an effective role in addressing social issues, but they do not believe that citizens are responsible for social issues, and do perceive that society needs attention. However, H3 citizens trust their capabilities to participate in a CCP and have a positive attitude toward it, they thus participate as much as they think the civic campaign is well-aligned with their own interests. H4 indicates collectivistic citizens with outcome efficacy, aspiration of responsibility and social worldview whose personal norm is also activated. H5 depicts selfless citizens who are collectivistic with outcome efficacy, aspiration of responsibility and perceived behavioural control, though their subjective norm is absent. H6 represents altruistic/collectivistic citizens with a belief in outcome efficacy, social worldview and perceived behavioural control that both of their norms are activated with more emphasis on their subjective norm. Finally, H7 indicates citizens whose values are present, have faith in their capability to contribute, with attitude and personal norms but the absence of subjective norms.

Configurations that do not culminate in citizens' participation (i.e., ~participation in CCP) are worth separate investigation and attention, as they are not necessarily the direct opposite of configurations leading to citizens' participation. Results reported in Table 4 present an overall solution coverage of 0.43 for five different configurations that are consistently (overall solution consistency of 0.88) linked to negation for participating in a CCP. Analysing conjunctions for the absence of participation highlights four important points. First, none of the ~participation in CCP configurations is negatively symmetrical to those that lead to participation, which is in contradiction with the traditional correlational analysis assumption. Second, necessity analysis indicates that there is no essential condition for the ~participation in CCP. Third, L1 with the largest raw coverage in ~participation behaviour (0.18) represents the most relevant and substantial path to this outcome. L1 configuration illustrates citizens who are self-interest with faith in CCPs and their own ability to collaborate but lack responsibility, attitude and norms. Interestingly, L2 with the next highest row coverage (0.17) depicts similar citizens who are self-interest but not altruistic or collectivist, they have faith in their abilities and CCP efficacy but do not feel society needs attention nor feel they are responsible for local or social defects; they also lack attitude and norm about participation in CCPs. L3 configuration is related to collectivistic citizens who have a social worldview and believe in their responsibility but they do not think that CCPs can make any difference and therefore they lack a positive attitude toward participating in CCPs. L4 and L5 share the belief in the assumption that CCP is not a correct answer to social or local issues, so even though they accept their responsibility regarding social or local issues, and their norm is activated (in L4) or their attitude is positive (in L5), they do not participate in a CCP. Finally, L1 and L2 (with the highest row coverage among ~participation solutions) resemble the potential for free-riding problems in public good development literature (Marwell and Ames, 1979), where citizens do not pay for developing the public good but will use it when it is realised. They believe in CCP's efficacy in addressing a social or local issue and they share a positive attitude toward it but they will not participate as they are mainly self-interest citizens who do not feel responsible regarding surrounding problems and their norm is not yet activated.

#### 6. Discussion and implications

#### 6.1. Discussion

In this study, we developed a research model by integrating theories of VBN and TPB to identify configurations that sufficiently explain citizens' funding (or not funding) in CCPs. To date, civic crowdfunding literature has mainly focused on fundraisers and attributes of successful campaigns (e.g. Van Montfort et al., 2021) or merely studied backers' behaviour through analysing conceptual, qualitative factors (e.g., Baccarne et al., 2020; Kusumarani and Zo, 2019). Nonetheless, there still is a paucity of empirical research to uncover the underlying mechanisms affecting citizens' contribution behaviour in CCPs (De Crescenzo et al., 2021). Previous studies on civic crowdfunding (e.g. Griffiths et al., 2017; Kusumarani and Zo, 2019; Logue and Grimes, 2022; Stiver et al., 2015) recognize different motivations deriving supporting civic campaigns such as benefiting society, addressing public concerns, improving personal life, and community building. However, the review of relevant literature reveals a gap in research explaining different configurations that can justify the diversity of contributors and more particularly non-contributors behaviour. Drawing on the distinctive nature of civic projects (Davies, 2015; Lee et al., 2019), we considered both citizens' moral-based values, beliefs, and norms besides self-interest and rational-based decision-making concepts. We also utilized a configurational approach—rather than conventional linear thinking—to pinpoint different configurations for contributing to civic crowdfunding projects.

To theoretically explain the complexity of citizens' backing civic campaigns, we developed a configurational model that integrates VBN and TPB theories into a parsimonious framework of citizens' participation. In doing so, we applied fuzzy-set QCA configurational analysis to gain new insights into combinatorial conditions and explain the motivations of different groups of citizens who participate (or not participate) in CCPs. Our configurational approach sought to understand the key combinations of factors that lead to participation in civic crowdfunding platforms or contrary, induce negation of contribution behaviours. The results indicate seven configurations leading to citizens' participation in CCPs and five configurations sufficiently explaining negation in citizens' participation.

Using theoretical multiplicity approach improved the explanatory power of integrated behavioural theories considering that some of the configurations (e.g. H3, H4, L1 and L2) cannot be explained by either TPB or VBN independently. For example, citizens' participation behaviour in H4 configuration- perceived behavioural control, attitude and subjective norms are don't care- is inexplicable under TPB presumptions, however, this configuration picks the collectivistic whose beliefs in social worldview, CCP efficacy and their responsibility regarding social and local issues are present that ultimately trigger their personal norm. In a similar vein, the H3 configuration is not justifiable by VBN theoretical lens as it represents self-interest citizens with the absence of collectivistic values, social worldview and aspiration of responsibility. This configuration is in line with literature that suggests CCP backers' motivations may be different from altruism or community development reasons (Griffiths et al., 2017; Stiver et al., 2015). We thus speculate that the H3 configuration represents self-centred supporters who contribute to projects with direct positive outcomes for them or projects that are well aligned with their interests. For example, a citizen who backs up improving a local park in their neighbourhood may not be inspired by collectivistic or altruistic values or does not believe in her responsibility for improving the society but still is motivated to support the campaign as its outcome would directly or indirectly benefit her and her family. Among non-participants, L3 cannot be justified through VBN theory as they are collectivists with belief that the society needs attention, however, they do not incline to collaborate because they do not believe in CCP efficacy and their attitude is also absent.

Overall, examining configurations for participation reveals that consistent with prior research (e.g. (Cuadrado et al., 2016; Steg and De Groot, 2010) CCPs' efficacy is present in all of the pathways leading to citizen participation (except for H7: don't care), but also present in two configurations explaining not backing CCP, which seems controversial. L1 and L2 resemble citizens who may look for *free-ride*. Although these citizens believe in CCP efficacy and presume that the collective action would be successful, still prefer not to contribute to civic campaigns in order to maximise their own utility; they believe that the outcome would be delivered regardless of their contribution (Damle et al., 2019). A citizen who exemplifies these two groups believes that having access to a community centre would be a good idea, however, she might not tend to support the campaign because she trusts that the community centre would be established regardless of her contribution and in this case, she receives its benefit without contributing toward the cost of its realisation.

Personal norm is another important condition as it is present in all pathways culminating in participation, except for the H3. Whereas subjective norm is not a key condition as it is only present in three configurations culminating in citizens' participation but irrelevant or absent in the others. Literature also confirms that personal norm is far more salient than the subjective norm in other-oriented or participation behaviours (Bednall et al., 2013; Kim and Hall, 2021). Moreover, attitude and perceived behavioural control are present in all solutions except for two of them implying that while attitude and perceived behavioural control are key conditions for the outcome but their effects are contingent on the status of other conditions, resembling complimentary conditions in our configurational model (Park et al., 2020). Put differently, attitude and perceived behavioural control impacts are significant only for some clusters of individuals depending on other conditions such as norms and beliefs. Finally, contrary to expectations, personal norms and attitude are present in L4 and L5 respectively that challenge VBN and TPB, however, these two configurations represent sceptical citizens who doubt the CCP's function and its capability to achieve the expected outcome, as the outcome efficacy is absent for both of them. A good example of these two groups is a citizen who feels responsible for pollution issues in their neighbourhood but she does not trust that civic campaigns can actualise their promise about this problem, so they avoid backing the campaign.

#### 6.2. Conclusion and limitations

This empirical study offers several important contributions by modelling underlying mechanisms deriving citizens' participation behaviour in CCPs. First, drawing on the VBN and TPB theories and configurational approach, we contribute toward a more holistic theory by incorporating substantive antecedents that deepen our understanding of citizens' participation behaviour in CCPs. We extend the literature by developing an integrative understanding of how different combinations of social-psychological factors can explain the diversity of citizens' behaviour. We unfold citizens' participation behaviour as a complex notion by widening the theoretical lens through which this behaviour is observed. By incorporating values, beliefs, attitudes and norms as well as a logical decision-making approach, our study reveals that citizens' participation in a CCP is a multi-facet and complicated notion that could be better explained in this broader view. Our theoretical multiplicity approach enabled us to go beyond identifying relevant motivations (e.g. Charbit and Desmoulins, 2017; Dai and Zhang, 2019; Griffiths et al., 2017) to better explain how these motivations conjointly shape the diversity of contributors or non-contributors in the context of CCP. Our study thus advances a theory with more explanatory power for elucidating citizens' contribution or ~contribution in a CCP.

Second, the current study extends the well-established history of behavioural theories (VBN and TPB) into the civic crowdfunding context to examine and explain citizens' behaviour. We focused on the civic crowdfunding platforms as promising vehicles for creating an innovative ecosystem wherein knowledge could be shared, partnerships could be shaped, and real collaboration between citizens and authorities could be framed to improve digital democracy. While research primarily focused on studying fundraisers and the features of their campaigns that attract potential backers (e.g. De Crescenzo et al., 2021; Lee et al., 2019; Van Montfort et al., 2021), this study is among the handful of scholarly attempts that examines and explains the citizens' behaviour in CCPs. By leveraging the guidelines for context-specific theorizing (Hong et al., 2014), we present the implications of two conventional behavioural theories to the emerging context of civic crowdfunding to understand citizens' behaviour. The findings advance our understanding of these two theories in the CCP context by unveiling citizens' participation behaviour that cannot be explained by either VBN's or TPB's presumptions.

Third, this research, to the best of our knowledge, is one of the first

studies that theoretically and empirically examine citizens' contribution and non-contribution behaviour in CCPs by utilizing a *configurational multiplicity perspective* with fsQCA. Configurational analysis assists us to develop asymmetrical prescriptive and configurational recipes to explain citizens' behaviour. Applying this research design markedly differs from the conventional symmetrical, hypothesis-testing approach whereby variables are examined in a competing environment to explain the variance in the outcomes, rather than to show how they cooperate or combine to create outcomes (Fiss et al., 2013). Unlike the 'net effect', symmetric approach, fsQCA proposes several configurational recipes for the interested outcome (Ragin, 2008). By examining conjunctural relations of underlying factors, this study better explains diverse antecedents of participating in a CCP among different citizens.

Fourth, through VBN and TPB, our research develops a parsimonious configural model that explains CCP participation and non-participation behaviour. Hence, our study advances previous literature on civic crowdfunding (e.g. Charbit and Desmoulins, 2017; Lee et al., 2019; Van Montfort et al., 2021) by revealing different configurations that describe the behaviour of contributors versus non-contributors. Particularly, while literature tends to introduce CCP backers as benevolent citizens (e. g. Damle et al., 2019; Logue and Grimes, 2022), our research adds to the few studies' positions (Griffiths et al., 2017; Stiver et al., 2015) and argues that CCP participants can be also self-centred supporters, who collaborate in projects that resemble their own interests or needs. Additionally, our findings provide a theoretically grounded explanation about the nature of non-participants, who are far less understood than contributors in the existing literature. Specifically, through configurational analysis, our study finds that non-participants might be free-riders or CCP non-believers.

Finally, our results have important implications for practitioners and assist them to gain insight into how CCPs can effectively engage citizens in loosely-coupled interactions to create shared values. Configurations identified through this study reveal that there are different clusters of people with various motivation mechanics, thus CCPs need to have different promotion plans to actively attract and engage them. For instance, the findings indicate that individuals' perception of their capabilities and efficacy profoundly affects their participation behaviour. Platform firms and policymakers should design educational and training programmes to increase citizens' perception of their abilities and their potential impacts. Moreover, it is critical that platform firms enhance the social image and visibility of CCP outcomes, for example, by publishing and broadcasting success stories about projects funded or social movements supported by the crowd. In this way, potential participants become aware that their contribution will lead to positive impacts on society, the community and their neighbourhoods. These efforts assist practitioners to boost citizens' attitudes and personal inclination toward participating in CCPs. CCP firms could also reinforce altruistic and

collectivist values as well as personal norms using different plans such as moral nudges or more broadly, norm-based policy interventions.

Despite its contribution to theory and practice, this research has some limitations which we believe open new avenues for future research. First, we considered civic crowdfunding platforms as the selected type of platforms to be surveyed, yet other types of donationbased crowdfunding platforms or other social crowdfunding platforms to check the generalisability of results are worthy to be studied in future research. Second, fsQCA results largely rely on extant literature and prior knowledge to select appropriate antecedents and outcomes. In this study, we developed our conceptual model based on TPB, VBN and extant literature, thus future research could employ an exploratory approach or a mixed-method design to identify context-specific variables and conditions that might have an impact on this field. Moreover, with emphasis on the highlighted role of morality in citizens' participating behaviour, the theoretical foundation of our configurational model was VBN and TPB, while other researchers with reasoning perspectives can consider the combination of Self Determination Theory (Deci and Ryan, 2012) and Behavioural Reasoning Theory (Westaby, 2005). These behavioural theories can be considered in a complementary or competitive approach to extend our results. The respondents of this survey are UK citizens that might be different in their collective approach and social values, the result of this study therefore can be checked in other national settings with similar or different economic, cultural, or societal conditions. For example, it would be particularly beneficial to compare the citizens' participation behaviour of developed and developing countries, low and high-income nations, or democratic and oppressive political systems. Finally, conducting a longitudinal study to examine citizens' perceptions and their real behaviours in CCPs could be a fruitful path for future research.

#### CRediT authorship contribution statement

<u>Nastaran Hajiheydari</u>: Conceptualization; Data curation; Formal analysis; Investigation; Project administration; Resources; Visualization; Validation; Writing original draft; Review & editing.

**Mohammad Soltani Delgosha**: Data curation; Methodology; Formal analysis; Software; Writing - review & editing; Validation.

#### Declaration of competing interest

None

#### Data availability

Data will be made available on request.

Construct	Item	Factor loading		
	AT1. Participating in a civic crowdfunding project is pleasant.	0.81		
	AT2. Participating in a civic crowdfunding project is a good idea.	0.78		
Attitude toward Participating in a CCP (AT) Ajzen (2002, 2011)	AT3 Participating in a civic crowdfunding project is a good way for solving the social problems around me.			
	AT4 Participating in a civic crowdfunding project is not a waste of time and money.			
	SN1. Most people who are important to me think that I should participate in civic crowdfunding.	0.80		
Subjective norm (SN) Ajzen (2002, 2011)	SN2. Most people who are important to me would want me to participate in civic crowdfunding.			
	SN3. People whose opinions I value would prefer that I try to participate in civic crowdfunding.			
	PN1. I have a moral obligation to participate in a civic crowdfunding project to help society.	0.81		
Demonsel merry (DNI) (Storm et al. 1000)	PN2. I feel that I should participate in a civic crowdfunding project to the best of my ability.			
Personal norm (PN) (Stern et al., 1999)	PN3. I would feel guilty when I don't participate in a civic crowdfunding project when it is related to a social issue or need.	0.87		
Perceived behavioural control (PBC) Ajzen (2002, 2011)	PBC11. I am confident that if I want, I can participate in a civic crowdfunding project.	0.82		
	(continued	on next page)		

#### Appendix A. Summary of measures

#### (continued)

Construct	Item	Factor		
		loading		
	PBC2. I think I am able to participate in a civic crowdfunding project even if I don't have plenty of resources, time and opportunities.	0.75		
	PBC3. I believe that I am capable of participating in a civic crowdfunding project even if there are limited ways of collaborating.	0.87		
	SW1. The balance of society is very delicate and easily upset.	0.70		
Cosial marthriam (CW)	SW2. The balance of society is strong enough to cope with the impacts of modernization ®	0.77		
Developed based on the concept of social situations (Fassinger and Morrow, 2012) Ducktt and Fisher, 2002)	SW3. If things continue on their present course, we will soon experience a major social catastrophe.	0.73		
and Morrow, 2013, Duckitt and Fisher, 2003)	SW4. The balance of power, resource, technology and money in society is injustice.	0.71		
	SW5. Social infrastructures are fairly available all around society ®	0.75		
Outcome officient (OE)	OE1. Collaborating in a civic crowdfunding platform helps to minimize the negative social impacts on the neighbouring areas for the contemporary and future generations.	0.80		
(Chee and De Greet 2010)	OE2. Collaborating in a civic crowdfunding platform helps to improve social fairness and justice.			
	OE3. Collaborating in a civic crowdfunding platform contributes toward the development of public assets.			
	AR1. I feel that every citizen is responsible for the social problems caused by citizens' activities.	0.71		
Ascribed responsibility (AR)	AR2. I believe that every citizen is partly responsible for social problems.	0.78		
(De Groot and Steg, 2009; Stern et al., 1999)	AR3. Every citizen should take responsibility for the social problems around them caused due to their activities.	0.85		
	SI1. Social power, control over others, dominance	0.80		
Egoistic (Self-interest)	SI2. Influential, having an impact on people and events	0.81		
(De Groot and Steg, 2009; Stern et al., 1999)	SI3. Wealth, material possessions, money	0.84		
	SI4. Authority, the right to lead or command	0.83		
Altruistic	Alt1. Social justice, correcting injustice, caring for the weak	0.86		
(Batcon and Dowell 2003: De Groot and Ster, 2009: Stern et al	Alt2. Equality, equal opportunity for all	0.83		
(Datson and Fowen, 2003, De Groot and Steg, 2009, Stern et al.,	Alt3. A world of peace, free of war and conflict	0.78		
1999)	Alt4. Helpful, helping others	0.84		
Collectivistic	Col1. Group membership, being a member of groups	0.70		
Developed based on the concept of psychological collectivism	Col2. Society norms and values, improving the society	0.75		
(Fischer et al. 2000: Jackson et al. 2006)	Col3. Social interest, doing what is best for the society	0.75		
(1.15CHEL CL al., 2009, JACK50H CL al., 2000)	Col4. Group orientation, helping and caring about others	0.73		

#### Appendix B. fsQCA calibration cut-offs

Conditions/variables	Measure descriptive				Fuzzy set calib		
	Mean	SD	Min	Max	Fully in	Crossover	Fully out
Self-interest	4.28	1.64	1	5.33	6	4	2
Altruistic	6.12	0.76	2	7.00	6	4	2
Collectivist	5.07	0.91	2	6.33	6	4	2
Outcome efficacy	4.94	0.85	1	6.00	6	4	2
Ascription of responsibility	4.51	1.48	1	5.67	6	4	2
Social Worldview	5.12	0.96	2	6.33	6	4	2
Perceived behavioural control	6.07	0.86	2	7.00	6	4	2
Attitude	6.28	1.02	2	7.00	6	4	2
Personal Norm	5.44	0.92	1	6.67	6	4	2
Subjective norm	4.46	1.89	1	5.67	6	4	2
Willingness to participate	0.31	0.28	0	1.00	0.67	0.28	0.07

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