When Function Meets Emotion, Change Can Happen: Societal Value Propositions and Disruptive Potential in FinTechs

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Abstract

Despite significant interest in value propositions as central drivers in digital service innovation, the literature so far provides limited insights from a societal perspective to better understand the formation of a disruptive potential based on proposed values. Accordingly, research on FinTechs as exemplary providers of digital service innovations has mainly addressed functional aspects of value propositions so far. This paper thus sets out to gain insights into the interplay and overall role of value propositions as potential antecedents and change catalysts in the formation of the often-promised disruptive potential of FinTechs. In an inductive theory-building approach the authors first examine how societal value propositions transcend individual functional and emotional ones and conclude with a conceptual model of the how the former can build up the disruptive potential of FinTechs.

1. Introduction

From a service-dominant logic, digital service innovations (DSI) offer a chance to establish a disruptive potential [1]. According to Christensen, et al. [2], disruption takes place when *„mainstream customers start adopting a new product or service in volume"*. To achieve this, researchers emphasize a customer-centric view of value creation [3] and see value propositions (VPs) as central drivers of DSIs [4]. These VPs should focus on what customers truly value and combine an individual as well as a societal dimension [5].

Christensen's [2, 6] approach is sometimes criticized for restricting drivers of disruption to a merely functional perspective [7, 8]. Theory on disruptive innovations takes up the shortfall and emphasises a more holistic approach [9-11]. Lindič and Marques da Silva [12] for example highlight the positive effect of both functional and emotional values to reach long-term customer satisfaction. An even broader approach is adopted by Schuelke-Leech [13] who explores how technological disruption can happen on a societal level by looking at organizational structures and relationships [13].

In terms of DSI, only few researchers look deeper at the role of VPs from a contextualised view; literature mainly frames it as a multiple stakeholder service ecosystem or looks from a platform perspective [14, 15]. Insights on how a potentially disruptive composition of VPs can look like in detail, or whether and how a special combination of value propositions can evoke synergies on a societal level still remain a gap [12, 14], despite ground-breaking work from some authors [9,10].

At the same time, the emergence of the FinTech companies (FTs) as DSI providers has triggered a flood of articles dedicated to identify success factors [16] and innovative potentials [17]. Similar to service innovations as a whole, early evidence concerning success factors and innovation mostly follows a purely functional approach based on technological progress [16, 18, 19], with little insights on their emotional or societal VPs.

This paper therefore sets out to explore the role and interplay of functional, emotional and societal VPs in the formation of disruptive DSIs, based on FTs as subjects, starting from existing findings and combining these with additional insights from 32 in-depth qualitative case studies from the field to build theory. With this the authors contribute to theory on disruptive DSI by providing fine-grained insights into how the formation of such a disruptive potential is connected and driven by proposed societal values and how these in-turn are built by functional and emotional VPs.

2. Theoretical background

Lusch and Nambisan [20] define service innovation as the "*rebundling of diverse resources that create novel resources that are beneficial (i.e., value experiencing) to some actors in a given context*" *(p. 161)*. Customers can be seen as active actors within the innovation process [21], perceiving and determining value on the basis of *"value in use"* [3]. In this context, digital technologies have been recognized as playing a dual role, as enablers and initiators for digital service innovations (DSIs

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henceforth) [20]. For example, digital infrastructures enable the generativity of platforms upon which actors are able to innovate. Additionally, new information and communication technology can directly trigger innovation by becoming a part of new service offerings through digitalization. Digital infrastructures and platforms combined with other resources established in networks of co-creation (such as skills and knowledge) support value creating transactions [22], which link it to the concept of service ecosystems [23].

A disruptive innovation can be seen as a process in which often smaller companies with fewer resources are successfully targeting low-end customers by delivering more suitable functionality at a lower price compared to incumbent competitors, based on Christensen [6]. However, this definition is partly criticized by other researchers for its narrow framework, limiting disruptive opportunities to a mostly functional perspective [7, 8]. Schuelke-Leech [13] follows up and introduces two levels of disruptive technologies, which can readily be adopted to the issue of DSIs. She distinguishes between first-order disruptions as a localized change within a market or industry reflecting Christensen's [6] approach, and second-order disruptions, *affecting society on a macro level by substantially changing societal norms, institutions and structures.*

The promise and creation of value is undisputedly the heart of any (disruptive) innovation. Consistent with a service-dominant mindset [3], it is customers who finally perceive and determine value in their experience; firms can only propose values, which Lindič and Marques da Silva [12] see as catalysts for customer focused innovations. Skålén, et al. [4] define VPs as "*value creation promises created either by the firm independently or together with customers and other actors through resource integration based on knowledge and competences*" *(p. 139)*.

Values can be proposed on different levels. Bohnsack and Pinkse [24] for example, argue that the use of information technology to address unmet mainstream customer needs opens points of superiority where new market entrants outperform incumbents. However, emotional value propositions (VPs) [25] and hedonic benefits on top of (functional) utilitarian ones are seen to be crucial for the acceptance and prolonged use of technology [26] and thus as underlying enabler for service innovations. Sandström, et al. [27] argue that VPs based on physical/technical enablers (e.g. underlying technologies) support the creation of functional and emotional VPs. While functional VPs mainly support initial adoption, which is in term highly influenced by the price of a new service, emotional VPs are responsible for creating attitudes towards the service and thus represent drivers of user acceptance and continuous usage [28]. Fisher, et al. [29] additionally find legitimacy (a form of crowd-matched societal value proposition) as an essential determinant for overcoming the liability of newness for new ventures and characterizes mechanisms of legitimacy building that can establish emotional connection to customers in a first attempt to transcend the individual to the societal level. Social values and the "radical innovativeness" of an idea are fundamental drivers of legitimacy [30], and are built up through a complex interplay between individual values and public discourse [31]. To ignite public discourse and reach mainstream customers VPs need to be communicated accordingly [5, 15]. Following this, the authors use *communication* as another important perspective in our model besides VPs to achieve mainstream adoption and legitimacy of the innovative services.

Literature so far does neither provide insights into how a disruptive composition with a causal chain of functional, emotional and societal VPs can look like. To explore this, the authors chose FTs as subjects representing a timely provider of potentially disruptive DSIs that affect various industries [32] and at the same time offer highly available and current research data.

3. FinTechs as DSI subjects

The term FinTech comprises the abbreviations of "Financial" and "Technology" [33] and is defined by Schueffel [34] as "*new financial industry that applies technology to improve financial activities" (p. 45)*. Various papers and reports have been dedicated to FT research, examining amongst their evolutionary formation [35, 36], their functional classification [16], and various other functional as well as non-functional dimensions [33, 37]. Researchers have already put in much effort to identify related business models [38, 39], success factors [16, 40] and the innovation potential [17-19]. Nicoletti [16] for example expands the *LASIC* components presented by Lee and Teo [40] and defines customer centricity, low-profit margin, agility, scalability, security management, innovation, ease of compliance (*CLASSIC*) as the critical success factors to create a sustainable FinTech business model. Gozman, et al. [18] characterizes FTs' core services, business infrastructures and underlying component technologies and analyses how FTs synthesize different technologies to restructure flows of financial information through competitive and cooperative mechanisms of disintermediation, extension of access, financialization, hybridization, and personalization. Gomber, et al. [19] presents a FinTech innovation mapping approach that explains changes in service operations, payments, deposits and investments as being driven by technological transformation.

Summing up current literature and similar to the realm of service innovations as a whole; what is missing

so far is an in-depth analysis on the structural composition of VPs of FinTechs and their role in the formation of a disruptive potential. Four major research streams on the microfoundations of innovations in FinTechs can already be identified in the literature: *data science*, *blockchain*, *co-creation* and *customer experience*. These will be discussed in more detail now in the next few paragraphs together with their inherently proposed values to potential customers.

FTs apply *data-science* to analyse customers' preferences and create tailored solutions meeting functional customer needs. Data, which is widespread seen as "the new oil" [41] in digital ecosystems, in combination with new technologies that enhance its exploitation plays a core matter for business models of FTs [38]. Big data enables the creation of value by improving financial services or creating new offerings [42]. Scholars are frequently elaborating on financial robo-advisory as one practical example of data-driven artificial intelligence being applied in financial investment management [43-46]. While services of incumbent investment intermediaries seem to remain overly complex [47] and expensive [48, 49], robo-advisory FTs try to respond to a growing consumer demand and are highly attractive for less privileged investors with ambitions to participate in the financial markets. Other examples of data science use-cases are new authentication and access control mechanisms [42], algorithms for pattern recognition, artificial advice, ESG portfolio building and alternative risk and insurance evaluations [50, 51]. Rizk, et al. [52] already combine DSI with big data analytics in their general review and research agenda presenting insights that fit well to FTs as providers of DSI.

Blockchain, a distributed ledger technology offers exciting new opportunities for FTs to create an innovative digital infrastructure. It allows the fully transparent and highly distributed storage of encrypted data [53, 54] with fast global access. In the payment industry, blockchain is thus said to enable low-cost, straight-though transactions without delaying staging-posts [55]. Blockchain technology offers an infrastructure characterized by low transaction costs and thus reduce the cost of networking [56].

In terms of emotional value propositions, FTs adopt a customer-centric approach and a *co-creation* mindset to deliver *hedonic customer experiences*. Relevant research has mostly been dedicated to the design of customer interfaces [44], the usage of gamification elements [18] and the service offering via mobile applications [57, 58]. Researchers have paid substantial attention to the realm of gamification lately, examining it in the context of service marketing and banking to find ways to optimize customer experience [59-63]. Deterding, et al. [64] define gamification as "*the use of game design elements in non-game contexts*" *(p. 2)*. The desire for gamification lies in three physiological and intrinsic customer needs: the need for competence, autonomy and the need for social relatedness [65]. Gamification elements for example can facilitate financial education of customers as well as their active engagement [18] and social relatedness is strongly related to a co-creation mindset that comprises a trend towards open innovation [56] and service platforms [51, 66].

4. Methodological considerations

The authors selected a purposeful sample of 32 salient FinTech cases with a high, media-ascribed, disruptive potential through from FinTech rankings provided by the Forbes magazine [67-69], KPMG and H2 Ventures [70-72]. The final case selection was based upon the criteria of being either exemplary or exceptional [73] concerning their disruptive potential. The sample covers a large geographic (USA:12, China:5, UK:5 and others:10) and service category spectrum (Payments:11, Lending:10, Investment:4, Insurance:3, Others:4). All FT cases are listed and shortly presented in appendix A that can be downloaded via this link: *https://tinyurl.com/fintech-value*. Even though this paper mainly focuses on VPs for consumers, the sample includes a few FTs that interact on a business-to-business (B2B) level. However, these selected FTs offer financial services to start-ups, single entrepreneurs and small businesses in their business creation and thus still provide VPs mostly for individuals.

The sources for the data collection included videos providing product and business information and interviews with FinTech founders and employees, a media-analysis of highly relevant news-providers in the FinTech sector, reports of the big-four advisory firms, individual document retrieval, and the analysis of blogs and press releases. Overall from the screening of our initial selection of more than 200 resulting documents, 160 were finally selected for further analysis. These will be referenced in the findings in round brackets with five-digit doc-numbers with a full list that can be downloaded by using the link above. The data was then coded following proven techniques [74] in an iterative and recursive approach. In this, the authors followed Saldana's [75] recommendation for a provisional coding and started with an a-priori set of codes based on the examined literature and Almquist's [76] elements of the "value pyramid". These a-priori codes (mainly functional VPs) were first anchored in the empirical data to demonstrate the validity of our case selection and then expanded inductively with postulated a-posteriori VPs on an emotional and societal level. Additionally, the authors inductively established the themes "interplay" and "communication" as well as "disruptive potential. In order to reduce researcher bias and enhance validity, the

two authors continuously and critically discussed and reflected the coding scheme applying inter-coder reliability schemes. However, as it is the case in qualitative research, it is acknowledged that the selection and interpretation of text fragments ultimately is hermeneutic and inherently contextualized.

Finally, the authors followed Cornelissen's [77] suggestions and built five individual propositions from the findings to *"formalize contingencies around a subject into basic cause-effect relationships that act as broad signposts and implications for further research" (p. 3)* before conceptualizing these into a holistic model of VPs and the formation of disruptive potential for FTs.

5. Empirical findings

5.1. Functional value propositions

As expected from the literature, FinTechs (FTs) exposed the following functional VPs: Simplify and accelerate, Support and inform, Automatize and safe, Integrate, and Connect individuals. To demonstrate the ecological validity of our cases, these a-priori themes are anchored in our data in the following sections:

Simplify and quicken. Providing descriptive videos (04013, 25106), guidance (01149, 04174), simple interfaces and application forms (05089, 14046, 14047, 07107, 20061, 25075, 25092) FTs not only facilitate but also accelerate customer processes. Kabbage, for example, guarantees automatic loan approval within ten minutes up to $150,000, so that customers can start using funds right away (14046, 14047). FTs such as Xapo or Coinbase provide blockchain based cryptocurrency wallets offering quick and straight-through (global) transactions (22095, 23119, 25075). Most FinTechs deliver their services via mobile apps (01157, 13043, 14045, 18127, 22096, 32002) representing a fast access channel to services. FTs seem to fulfil customers' requirements for frictionless services that fit their busy schedule.

Support and inform. FTs provide detailed and straightforward service information (12040, 15042, 21065, 26078, 28173, 30222) and finance education (21066, 23139, 26033, 30225, 31134). As an example, the investment FT Robinhood promotes commission free transaction and anticipate customers' wondering about how that can be seriously possible by informing them in detail about how they instead make money on their website (26081). Information and support for customers is often available 24/7 through FinTech applications (04013, 08026, 15109, 25076, 31129) and often powered by artificial agents and chatbots (25076, 04174, 15049, 15109). By providing open and comprehensible information FTs try to deliver a feeling of reliability and authenticity that customers are searching for.

Automatize and save. Process automatization through technological progress is used by FTs to provide highly valued services at a fundamentally lower price. Robo-advisors for example offer automated, algorithm-driven financial planning to manage even smaller portfolios at affordable cost (16175, 31132, 29211, 30219). Other FTs have established innovative business and revenue models (26032, 26081, 25121) to reduce fees in trading (16114, 23138, 23140) and payment (18062, 25090, 28171, 31130) that attract mainstream customers. Transferwise for example acts as intermediary by connecting individuals with opposite currency exchange demands to avoid costly global money transfers (28168).

Integrating data and services. FTs are blending services and data sources that were previously separated. Customers profit from convenient one-stop-shops that offer solutions for any financial need (13043, 15108). As an example, Alibaba's subsidiary Ant Financial comprises several firms covering services in payments (Alipay), lending (Sesame Credit), banking (MYBank) and investment (Ant Fortune, Yu'e Bao) (01162). Revolut extended its offer and combined payment, cryptocurrencies, currency-exchange and insurance services into one application (25075). FTs gather and combine information from various sources (01216, 04013, 05103, 07023, 09093, 14218, 24073) helping them to improve their data models and better align their offers to the customers' needs. The innovative use of mobile phone cameras, video chatting and scanning abilities for the identification of a customer may be another example.

Connecting individuals in the financial systems. FTs often act as intermediaries or platforms to connect individuals. Blockchain technology is used to provide decentralized money transfers (22095, 23070) and peer-to-peer interactions enable individuals to better match offer and demand (06196, 11039, 28172). The most prominent examples of connecting intermediaries are crowdfunding platforms, such as the FT OurCrowd, that provides a network that matches early-stage entrepreneurs and investors (19179).

Summing up the insights from above, the authors identify *Proposition 1: The availability and recent maturation of Data-science and Blockchain technology act as connector, enabler and initiator in driving functional VPs for FTs (see P1 in fig. 1).*

5.2. Emotional value propositions

Although some codes, in particular Gamification, were already known a-priori and again simply validated, literature did not hold much more on emotional VPs in FTs and DSI. Therefore, the rest of the codes were found inductively and postulated a-posteriori, leading to the

following: Gamification for entertainment and reward, Serious elegance and aesthetics, and Lowering frustrating barriers.

Entertain and Reward. Scanning the FinTech cases the authors identified amongst monetary rewards (10034, 30227), scores and performance graphs (10034, 01154) as gamification elements that were implemented in services. Oscar and Clover Health, two insurance-based FTs reward customers by offering discounted rates to those who stay active and on top of their health (04015, 04016, 24071). As another example, investment FTs offer sandbox-like experiences where customers can play with their budgets and test investment strategies (29228). Sofi offers a reward for customers in combination with an entertaining card game called "So-Money" that should encourage a more open conversation about finances among customers (16112). FTs seem to jump on the gamification trend delivering a feeling of competence, autonomy and enjoyment that can strengthen their customers' active engagement.

Offer aesthetic pleasure and delight through serious elegance, clarity and aesthetic design. Interestingly, 16 of the 32 investigated FTs use the colour blue in their design. The colour blue stands for cool, silence, respectability, seriousness and trust [78]. In general, FTs tend to use a very structured, simple, professional and appealing design which demonstrates high aesthetic value (08029, 13102, 15050, 17101, 26077, 30226). The microloan FT Affirm was even honoured with the Fast Company's 2017 Innovation by Design Award in the mobile apps and user experience category (20118).

Promise to overcome frustration. FTs open the capital market for those that have not been served yet (01216, 05105, 07023, 14218, 16111). They integrate data from e-commerce (01163, 09093) and social media (05103, 14218) with the data provided in the application process of customers (05105, 07023) and make use of alternative risk evaluation methods. FTs are thus lowering barriers to enter by reducing or removing minimum investments (01188, 30219, 31203) or outdated formal requirements. By offering clear and transparent information and guidance, FTs reduce anxiety and invite everyone to actively participate in the financial market (16124, 16208, 28169, 25121, 26081).

Summing up the authors identify *Proposition 2: FTs create hedonic customer experiences through networking and co-creation as emotional VPs (see P2 in fig. 1).*

5.3. Communication and societal value propositions

Looking at FTs from a societal perspective; the functional and emotional VPs that have been addressed so far in the literature on the level of individuals and have been anchored in our empirical data well affect society as a whole given a macro perspective and thus transcend the individual level. Such a societal perspective needs to include discourse and power as subjects of inquiry and consequently, communication was found as moderator of VPs on all levels in our coding.

FTs provide transparent and straightforward information on their services and functions. They use simple and short videos (01207, 15042) and aesthetically inviting web pages (08029, 13102, 15050, 30226) to translate and spread their VPs. FTs are actively communicating their emotional values through signals for example how and why they are lowering entry barriers (01209, 03192, 24073). The resulting emotional effect is especially enhanced by two-way interactive communication with testimonials and all sorts of viral social media use. FTs include user generated content to foster authenticity and thus attract more mainstream customers (08217, 19210). As an example, OurCrowd provides a platform for success stories of customers to deliver functional and emotional values (19210) to differing audiences and provides tools for the translation of value through the narratives. In addition, chatbots, being available 24/7 (25076, 04174, 15049, 15109) deliver a feeling of closeness and connection while making use of geography-specific cultural capital.

Summing up, the authors identify *Proposition 3: FTs scale up their VPs and influence public discourse by offering two-way interactive communication channels with inherent localized and tech-driven value translations (see P3 in figure 1).*

Taking into account this communication and its impact on societal discourse, our now purely inductive a-posteriori coding on societal VPs was summarized into the themes of *Empowerment and Inclusion*, with table 1 providing an overview including the five societal values they create: *financial inclusion*, *independence*, *affiliation*, *self-actualization* and *doing good*.

Financial inclusion. Combining the emotional VPs of lowering barriers with a range of functional VPs for so-far underprivileged parts of society, financial inclusion as a truly societal VP can be created. This societal value is well reflected in current literature that sees FTs as potential drivers [40, 51]. As an essential determinant for an inclusive society, financial inclusion is defined by Dev [79] as "*delivery of banking services at an affordable cost to the vast sections of disadvantaged and low-income groups" (p. 4310).* New ways of serving and reaching potential customers contributes to a change in availability of finance [80]. While FTs often mainly attract young and high-income users as early adopters [81], their services ultimately facilitate the usage and transaction of money in developing countries with low risk and low effort and thus attract the underprivileged parts of society [82]. The authors found that FTs are offering financial services for those that have not been

served by traditional financial service providers yet. Integrating data of various non-financial sources FTs build innovative algorithms for risk evaluation (01216, 05103, 05105, 07019, 07023, 14218). Sofi for example provides capital to students, which may lack credit history but provide excellent scoring based on alternative data (16111). Others use crowdfunding strategies to provide alternative capital sources (19179). FTs lower entry barriers by deleting thresholds (01188, 31203) and reducing transaction costs (03024, 16114, 23140, 26081, 31203). Using cryptocurrencies based on blockchain technology, FTs further enable quick and (nearly) costless payment transactions even for those customers that do not have a bank account (22069, 23070, 25074). Robo-advisors offer younger, less affluent and less investing-savvy customers ways to join the investment game (29211). M-Pesa, as the most prominent FinTech operating in developing countries, enables low-cost mobile money transactions replacing uncertain, expensive and time-consuming transfer procedures (32001). Additionally, FTs provide opportunities to transfer and store money safely (22069, 22087, 22096, 32001, 32004).

However, the term inclusion must not be restricted to the delivery of financial services to unserved parts of society. The authors found FTs providing access to various resources that in combination with practices of empowerment build the basis for the creation of societal VPs comprising independence, affiliation and self-actualization, which will be described in the next few sections.

Table 1. Societal VPs created by inclusion and empowerment

#	*Societal VPs*	Empowerment	Inclusion
1	*Financial Inclusion*	-	Access to financial services
2	*Independence*	Financial literacy, general awareness	Access to information
		Re-intermediation	Transparency
3	*Affiliation*	-	Access to networks and communities
4	*Self-actualization*	Self-efficacy	Access to infrastructure, information and capital
		Motivation	
5	*Doing good*	Self-efficacy	Access to markets
		Motivation	

Independence. FTs seem to strive for an increase in financial literacy and general awareness providing access to information and professional advice (14141, 26033, 23139, 31134, 16208), transparency (16124, 16208, 28169, 25121, 26081) and an open mindset to financial issues (16112). As new intermediaries they offer technical (17115, 27122, 18046) and decentral (21082, 23119, 25075) infrastructure, platforms and peer-to-peer systems (06196, 11039, 19179, 28172, 28168) to connect individuals and bundle the innovative force of society to establish a network of co-creation. As a result, individuals are less dependent on incumbent intermediaries. Using the "wisdom of the crowd" to establish recommendation algorithms and well-suited customer experiences FTs can enhance their functional and emotional VPs and simultaneously empower society.

Affiliation. By providing open networks of co-creation FTs can additionally deliver a feeling of affiliation to their customers. They create communities (16208) and foster social interaction within networks (19179) that can enhance feelings of closeness. Driven by an increase in financial literacy, general awareness and re-intermediation in co-creation and strengthened by a feeling of belonging FTs can create independence and affiliation as societal values. In addition to the provision of access to necessary resources FTs can also deliver motivation and a feeling of self-efficiency to enable self-actualization and doing good as societal values:

Self-actualization. Making capital, (technical) infrastructure, information and legal requirements (27080, 27122) available FTs can create a breeding ground for individuals to realize their ideas. They can support the seeding of entrepreneurship starting with the creation of small businesses in Kenia to the establishment of new technology driven start-ups. Additionally, FTs are actively using gamification elements to motivate customers. Ant Financial successfully initiated the mobile app "Ant Forest" that should encourage customers to stick to an environmentally friendly lifestyle by reducing their carbon footprint (01153). The app shows the customers' individualized carbon savings (performance graph) and rewards efforts by physically planting trees. By displaying a growing tree, which indicates the customer's progress in saving, Ant Financial supports goal setting as well as a feeling of self-efficacy. Another promising example is provided by the InsureTechs Oscar and Clover Health that offer a discounted rate for customers who stay active and on top of their health (04012, 04015, 04016, 24071). That leads to the fifth societal value the authors could identify:

Doing good. FTs seem to use technological opportunities to offer chances of doing good. That includes, in one hand, doing something good for oneself as for instance sticking to a healthy lifestyle (04016, 24071), as before mentioned, which can lead to a change in medical prevention. In the other hand, some FTs enable options for societal engagement and social responsible behaviour. Investment FTs, for example, offer impact in-

vestment (29144, 31130). The fund of OurCrowd requires its Israeli portfolio companies to donate a portion of their equity as part of the closing of any funding round (19213). Ant Financial is listed in the Fortune's "Change the world" list for introducing the tree-planting app to tackle climate change (01153).

As stated before in proposition 3, FTs are actively communicating societal VPs. They talk and write about their inclusive visions of "*breaking the (geographic) walls*" (19178), "*unlocking the financial market to all*" (26032) and "*bringing equality of opportunity in the world*" (23070). OurCrowd aims at "*altering the supply and demand power dynamic of private capital markets"* (19178) and Sofi tries to "*empower people to reach their goals*" (16051). Ant Financial published a report about the Ant Forrest app presenting their aim for social engagement and environmental impact (01155). In fact, Ant Financial's mission that is published on the web page includes a blend of functional, emotional and societal VPs: *"With the mission of 'bring the world equal opportunities', Ant Financial is dedicated to creating an open, shared credit system and financial services platform through technology innovations, and to provide consumers and small businesses with safe and convenient inclusive financial services globally."* (01209)

This leads to *Proposition 4: FTs can be understood as platforms where functional and emotional values are cleverly combined to implicitly and explicitly offer societal VPs, driven by the overarching themes of empowerment and inclusion (see P4 in figure 1).*

6. How value propositions help in the formation of a disruptive potential

The previously documented findings and propositions represent the basic building blocks to conceptualize a model explaining how VPs can lead to the formation of disruptive potential in DSI (cf. figure 1).

We have shown that well-communicated functional and emotional VPs are constitutive for societal VPs. The resulting synergistic societal value propositions lift market adoption and customer satisfaction on a mainstream level in processes that theory sees as critical towards the formation of disruptive innovations. **Thus, the authors postulate how the synergistic societal VPs contribute to the formation of a disruptive potential in two ways:**

1) A change in the composition of financial market participants, based on the inclusion of those large segments of society that have been historically underprivileged and excluded by incumbents will result in a change in the composition of mainstream customers and thus drive a change in mainstream customer needs. FTs for example not only include the disadvantaged but also try to satisfy their specific needs.

2) By matching inherent societal values, for example by offering self-actualization and doing-good as dominant VPs, FTs are seen as particularly legitimate organisations in the eyes of the many people looking for change. This creates a high legitimacy in the eyes of the public and results in easier and cheaper access to resources, including to even more innovative and potentially disruptive ideas - based for example on ideologically driven co-creation - as well as to mainstream market adoption.

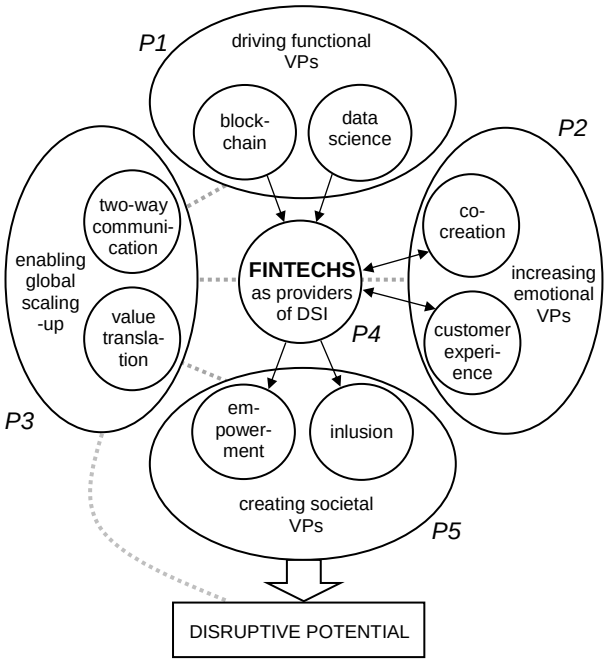

Figure 1. Conceptual model of VPs creating disruptive potential

Summing up 1) and 2), these arguments support the final *Proposition 5: Societal VPs of FTs and the connected discourse act as catalysts for mainstream adoption. The change in market participants and the creation of high legitimacy finally lead to the formation of a disruptive potential (cf. P5 in figure 1).*

With the conceptual model and the foundational five propositions, the authors thus finally propose our contribution to theory on disruptive digital service innovation by providing fine-grained insights into how the formation of a disruptive potential is based on societal value propositions

7. Conclusion and implications

This investigation connects to research from various disciplines, amongst them information systems, entrepreneurship, marketing and sociology/societal change.

The results are also relevant for practice as they can provide early empirical evidence in qualitative exploratory manner supporting providers of digital service innovation (DSI) in their competitive positioning.

The close examination of value propositions (VPs) and their interplay as drivers for the formation of a disruptive potential provides insights to better understand and manage DSIs in the future. Furthermore, by looking at FinTechs (FTs) as exemplary subjects of DSI, the authors also contribute to the literature on FTs and their potential for societal change. Taking advantage of technological-progress and at the same time inviting the innovative dynamism of society into global, collective endeavours, certainly can bring about disruptive change for ourselves and future generations, based on the values of the many.

These findings also point to some major implications for future research. The present research endeavour is limited to FTs as one, albeit particularly relevant provider of DSI and focuses on a consumer perspective. Further studies thus might build upon this and expand the framework for example by including other examples of DSIs or examining additional VPs in a business-to-business (B2B) context. That can be supported by insights from the “B2B elements of the value pyramid” [85]. Building on the societal values of independence and self-actualization, the adoption of a B2B context may enhance our understanding of societal values as potential drivers for economic value and economic growth. Bringing in an economics perspective, future research should also elaborate for example on the implications of a resulting change in savings behaviour of customers driven by disruption based on DSIs.

Another prominent avenue to move forward may look into how specific blends of functional, emotional and societal values propositions may be particular effective and to which extend cultural differences have to be taken into account. In this context, the authors additionally emphasize that societal values are dynamic and highly influenced by social movements and public discourse, especially in terms of sustainability. Therefore, future research should elaborate how legitimacy can explain the catalytic effect of societal values including a critical discourse analysis and the interplay of values in a social environment.

7. References

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