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COLLABORATIVE CONSUMPTION ON MOBILE APPLICATIONS: A STUDY OF MULTI-SIDED DIGITAL PLATFORM GOCATCH

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Abstract

This paper examines the role of IT in developing collaborative consumption. We present a study of the multi-sided platform goCatch, which is widely recognized as a mobile application and digital disruptor in the Australian transport industry. From our investigation, we find that goCatch uses IT to create situational-based and object-based opportunities to enable collaborative consumption and in turn digital disruption to the incumbent industry. We also highlight the factors to consider in developing a mobile application to connect with customers, and serve as a viable competitive option for responding to competition. Such research is necessary in order to better understand how service providers extract business value from digital technologies to formulate new breakthrough strategies, design compelling new products and services, and transform management processes. Ongoing work will reveal how m-commerce service providers can extract business value from a collaborative consumption model.

Keywords: Collaborative Consumption, Multi-Sided Platforms, Mobile Applications.

1 Introduction

Collaborative consumption, an economic model based on sharing, renting, swapping or trading of services and products with the benefits of ownership but without actual ownership, is a rapidly emerging topic amongst industry and research (Botsman & Rogers 2010; Nguyen 2014). The rise of collaborative consumption in an increasing digital and sharing economy can be attributed to the emergence of multi-sided platforms that enables it, offering ride sharing (e.g. Zipcar, Uber), textbook rental (e.g. Chegg, ZooKal) and skill sharing (e.g. Techstreet, Tradeschool) to name a few. Hence, the collaborative consumption notion has attracted anecdotal and academic attention in recent times because when adopted, it important kind of consumption that reduces the cost of service and the burden of time and resources being spent (Botsman et al. 2010; Nguyen 2014).

The emergence of multi-sided platforms presents significant opportunities for information systems (IS) researchers (Tiwana, Konsynski & Bush 2010). Firstly, scholars highlight that we still do not understand very well how multi-sided platforms emerge, as researchers tend to assume that a platform already exists (Gawer & Cusumano 2014). Few studies, with the exception of the preliminary work by Hagiu (2009a), examine the process of establishing multi-sided platforms and the buyer and seller mechanisms in a specific market in depth. Secondly, successful multi-sided platforms are the exception rather than the norm (Hagiu 2014). While some multi-sided platforms have grown explosively, many have struggled to be viable over time (Evans & Schmalensee 2010). Many similar cases highlight that a multi-sided platform needs to continue evolving the platform and its *ecosystem* (see Gawer 2009; Gawer & Cusumano 2008), as well as the associated business models, in order to remain competitive as challengers emerge and as markets and technologies change (Gawer et al. 2014). Thirdly, multi-sided platform ecosystems are dynamic but the extant IS literature focuses on

performance rather than explaining how the platforms evolve over time or how well or how poorly platforms respond to the dynamics of their environment (Tiwana et al. 2010). Despite their emergence, we have yet recognise the role of IT to enable such multi-sided platforms.

Given the research gaps identified above, the research question posed in this study is *how does IT enable the development of collaborative consumption on multi-sided platforms*. To address this question, we first conduct an exploratory case study of goCatch, a large and vibrant multi-sided platform with over thousands of members. The platform enables collaborative consumption in the transport industry in Australia. We draw evidence from accounts of how goCatch established itself first as a mobile application platform in 2011, and then diversified into a ride-hailing platform offering online payments and other essential Internet services. Results from this study seeks to develop a roadmap and further research models with which to test the relationships between IT-enabled collaborative consumption and business value.

2 Literature Review

2.1 Collaborative Consumption and Multi-Sided Platforms

Economies of consumption are also known as collaborative consumption. Collaborative consumption is considered as the next generation of sharing over the internet. It is an emergent trend due to the growth of sharing economies of production and sharing economies of consumption has attracted academic attention in recent times. There are several reasons which contribute to the rise of collaborative consumption. Firstly, the expense to use a product or a service reduces tremendously for the ones who cannot afford products or services (Nguyen 2014). Secondly because it is effective and efficient, boosts productivity and also helps run resources when the market is scarce. Thirdly, the web based technology has aided in enabling it. With the growth of the internet, IT serves as a platform for the growth of collaborative consumption such that buyers can use the products at a cheaper price compared to the retail and the sellers can use the platform to get rid of the used or depreciating assets. (Botsman et al. 2010; Nguyen 2014).

Platforms that enable collaborative consumption operate in an IT-enabled commercial network of suppliers, intermediaries and customers (Cusumano & Gawer 2002), and facilitates transactions between these different sides of the market to add value (Gawer et al. 2008). Notable platforms include Yellow Pages for consumers and advertisers; eBay for buyers, advertisers and sellers; Google and Facebook for advertisers and Internet users; and Alibaba.com, with its large network of sellers, promoters and buyers (Eisenmann, Parker & Van Alstyne 2006; Rochet & Tirole 2003). These multi-sided platforms leverage technology, such that advances in web technologies over the past decade have underpinned their growing affordances and usefulness (Boudreau & Hagiu 2009; Hagiu 2009b). At its core, these platforms afford two functions: "reducing search costs, incurred by the multiple constituents before transacting, and reducing shared costs incurred during the transactions themselves" (Hagiu 2009a). A platform's *ecosystem* is thus a collection of the platform and the constituents specific to it (Boudreau et al. 2009; Hagiu 2009b). Hence, platforms must attract enough customers from both (buying and selling) groups and provide value to each group of entities in order to achieve sustainable growth in its ecosystem.

The concept of *multi-sided platforms* is not new. Prior literature in economics and information systems postulates that it involves transactions among two or more groups of *constituents* (such as consumers, sellers, advertisers and suppliers) through an intermediary (Hagiu 2014; Tiwana et al. 2010). A shopping mall that brings together consumers and store owners is an example of a multi-sided platform. Platforms exist in multi-sided markets which have *subsidised groups,* namely, groups of platform users (typically sellers) who, when attracted in volume, are highly valued by the *paying group*s (typically buyers). In other words, if a platform can attract enough entities from subsidised groups, entities from paying groups are likely to pay to reach them [Evans, 2003a; Evans, 2003b].

Whilst many studies make significant theoretical and practical contributions, scholars indicate that the extant literature on platforms is inadequate for several reasons. Firstly, as stated in the introduction, many of the studies on platforms only focus on pricing and competition between platforms. Secondly, the conventional coordination mechanisms found in the IS development literature particularly cannot be readily applied because the strategic scope for platforms is significantly wider than for normal firms, as it includes managing interactions and interdependencies that are out of a firm's boundaries. Thirdly, there are calls for increasing research into the *technology* aspects of competitive platform environments (Gawer et al. 2008; Gawer et al. 2014) in order to better understand how multi-sided platforms stimulate and channel innovation and to better inform the strategic decisions of multi-sided platform leaders and their challengers. According to Tiwana *et al.* (2010), research on platforms can bring the IT artifact into the core of theoretical development regarding platform evolution and, in doing so, can contribute unique insights that are distinct from strategy and economics.

2.2   Theoretical Lens: Affordances of IT

As explained above, some multi-sided platforms can potentially leverage on advances in IT to afford functions such as reducing search costs, incurred by the multiple constituents before transacting, and reducing shared costs incurred during the transactions themselves. In this study, such IT affordance refers to an action potential, that is, to what individuals or organisations with particular purposes can do with technology or IS (Strong, Volkoff, Johnson, Pelletier, Tulu, Bar-On, Trudel & Garber 2014). The concept of affordance itself arose primarily from the field of psychology and draws on an ecological alternative to explain how inherent values and meanings of things in the environment can be directly perceived, and how this information can be linked to the action possibilities offered to the organism by the environment (Gibson 1977).

Various scholars advocate that the use of affordances can inform the study of IT-associated organisational change processes (Volkoff & Strong 2013) and can theorise how technologies offer action possibilities to work teams and organisational units (Gaver 1991; Robey, Anderson & Raymond 2013) and create new organisational forms (Leonardi 2011; Zammuto, Griffith, Majchrzak, Dougherty & Faraj 2007). The focused nature of the affordance concept is useful to examine the effects of introducing technology to organisations (Volkoff et al. 2013). In a real-world domain, IT-associated change can be viewed as interacting strands of affordances spanning time. This can include basic (mandated or intended use), integration, standardisation, control, analysis and communication affordances (Volkoff et al. 2013). For example, affordances of technology for learning include information accessibility, task automation, knowledge representation and communication/collaboration with peers and experts (McCrory, Putnam & Jansen 2008). Affordances of technology for healthcare range from electronic health records and personal health records to decision-support and telemedicine systems, which afford clinicians the ability to access patient data and medical histories electronically and inform their pertinent healthcare decisions (Chad 2011; Goldschmidt 2005).

According to (Volkoff et al. 2013), affordances are a type or subset of generative mechanisms. Just as generative mechanisms are non-deterministic, different actors may *actualise* affordances differently. At the organisational level, actualisation refers to collective actions taken by actors to take advantage of affordances through their use of technology to achieve outcomes in support of organisational goals (Strong et al. 2014). Understanding that mechanisms are both powers and liabilities reminds us that affordances can both enable and constrain. In addition, multiple affordances are present at the same time; therefore, in addition to uncovering these affordances, researchers must pay attention to the nature of the relationships between affordances in order to examine the different structural levels from which they emerged in their constituent parts (Volkoff et al. 2013). Hence, researchers must account for the way in which actualised affordances unfold temporally.

3   Research Method and Data Analysis

The focus of our study is an emerging phenomenon that has only recently attracted the attention of IS researchers. Recognising that collaborative consumption form an inherently complex and multi-dimensional phenomenon, an objective approach to research might be difficult (Koch & Schultze 2011), making it more appropriate to examine the phenomenon by interpreting the shared understanding of the relevant stakeholders (Klein & Myers 1999). The case study research methodology is particularly appropriate for such an exploratory research endeavour (Siggelkow 2007). The qualitative case research method adopted here allowed us to unearth operational processes (Gephart 2004)and to address our 'how' research question (Walsham 1995). We adopted an interpretive approach (Klein et al. 1999; Walsham 1995) as there was no established theoretical model to explain how multi-sided platforms enable collaborative consumption. Applying the existing knowledge on consumption and using IT affordances as our theoretical lens, which serves as a "sensitizing device to view the world in a certain way" (Klein et al. 1999), allowed new, unexpected and in-depth findings that were not identifiable at the outset of the inquiry to emerge from the data.

A few criteria formed the basis for the case study selection. First, the case organisation should be a multi-sided platform that enables collaborative consumption. Second, the multi-sided platform had to serve paying and subsidised groups so that the underlying mechanisms for managing the different groups could be studied. This implies that the motivation for participating on a multi-sided platform (i.e. to lower the search and shared costs) should be reflected in the constituent's purpose. Third, and related to the first two criteria, the internal structures and operations of the selected firm must be sophisticated enough, in that the multi-sided platform should have demonstrated its capabilities (both IT and non-IT capabilities) across business functions (including operations planning, order processing and product research and development). In addition, it was decided that the case organization should be a start-up. This criterion was applied for two reasons. Firstly, start-ups have long been recognized as drivers of innovation. They are known to take risks in introducing disruptive technologies despite having limited resources (Katila & Shane 2005). Their level of risk is often justified by the fact that they do not have an existing customer base and thus do not need to comply with user demands or cannibalize their existing product offerings. Secondly, from previous research, it can be observed that technology-driven start-ups have been examined in a range of contexts (Gruber, MacMillan & Thompson 2008). Start-ups also encapsulate elements such as funding, business strategy, and the identification of market opportunities. This is relevant given the digitization of the economy and the continually changing business environment. Based on these criteria, we chose goCatch – Currently Australia's most popular ride-hailing mobile application– as our case organisation.

No	Interviewee	Topics Discussed
1	Co-Founder/Co-CEO	Business idea conception, venture capital/funding, firm history, application functionality, internal IS, technologies implemented, future initiatives, co-creation with drivers
2	Head of Engineering	Geospatial mapping, real-time data, application functionality, internal IS, technologies implemented, future initiatives
3	Head of Mobile Development	Geospatial mapping, application design, data analytics, application functionality, internal IS, technologies implemented, future initiatives with drivers
4	Software Engineer	Data collection, application functionality, internal IS, technologies implemented, future initiatives
5	Head of Design & UX	Application design, business intelligence/data analytics, application functionality, internal IS, technologies implemented, future initiatives, co-creation with drivers
6	Support Officer	User issues, user feedback, internal processes, application functionality, internal IS, technologies implemented, future initiatives
7-19	goCatch Drivers	Driver attitude towards goCatch, user experiences, value of app, working with goCatch on programs

Table 1:   Summary of interviewees and topics discussed

In line with our literature review, we narrowed the focus of our inquiry to a few pertinent themes: (1) the goals of the multi-sided platform and those of its constituents, (2) the IT affordances, and (3) the development and value achieved by the platform and its constituents. a total of eighteen interviews – comprising of goCatch executives, goCatch staff, and drivers – were conducted over a period of five months, with an additional pilot online questionnaire conducted over the following five months. Face-to-face interviews were conducted to allow us to capture the interpretations of the participants in an effective way, illuminate important factors in depth and follow up with questions for clarification (Taylor & Bogdan 1998; Walsham 1995). We adopted a semi-structured interview approach, thus further enabling ideas and issues to be clarified (Taylor et al. 1998; Walsham 1995). Secondary data sources, including newspaper articles, books and information from goCatch's corporate website, supplemented the analysis and enhanced our understanding of the data collected from the interviews. Table 2 summarises how we applied Klein and Myers' (1999] principles for conducting interpretive studies.

Principle	*Application of the principle in our research methodology*
Fundamental Principle of the Hermeneutic Circle	Interviews were conducted with platform founders, middle managers of gocatch, drivers and customers. These internal and external stakeholders provided detailed knowledge of their daily operations in their firm and the role of IT.
Principle of Contextualisation	Senior and mid management were represented in our interviews. The stakeholders were vastly experienced. We discussed generic topics in order to understand the context of daily operations in the company, interrelationships with constituents and in the marketplace, milestones and critical growth phases.
Principle of Interaction between Researchers and Subjects	An iterative interview strategy was employed; the findings from the first interviews informed new questions that were used in the second interviews and so on. Findings were consistently shared with the managers to obtain feedback.
Principle of Abstraction and Generalisation	A preliminary lens based on concepts derived from the literature relating to platforms and IT affordances was created to sense, capture and organise field notes. During the interviews, field notes were taken to relate specific instances and idiosyncrasies to theoretical concepts, though not forcefully.
Principle of Dialogical Reasoning	The researchers' preliminary conceptualisations were challenged during and after the site visit. These preconceptions enabled contradictions and revisions to be made to our original theoretical lens.
Principle of Multiple Interpretations	The researchers applied the process of triangulation [Darke, Shanks and Broadbent, 1998] to ensure the convergence of interpretations by interviewees from different backgrounds and work areas. For example, follow-up and confirmation questions were used to clarify contradicting responses among the interviewees. Interviewees were asked to describe or affirm their interpretations of critical events if needed.
Principle of Suspicion	Secondary data sources, including newspaper articles, books and information from goCatch's corporate website were sourced to eliminate possible distortions and false interpretations of interviewees and researchers. Several discussion sessions between the researchers were conducted to ensure the reliability and consistency of data interpretations.

Table 1.   Application of Klein and Myers' [1999] Seven Principles for Interpretive Field Research.

For the case data conducted, data analysis took the form of selective coding (Strauss & Corbin 1990). We perform data analysis concurrently with data collection (Eisenhardt 1989) to compare the initial findings of the case against the initial statements and our theoretical lens to reach confidence (per Pan & Tan 2011). We will compare the revisions with subsequent interview data, sifting through empirical data, theoretical perspectives, relevant literature and other sources to build an explanation (Walsham 2006). During axial coding, similar concepts from open coding are linked and matched with theoretical constructs. Finally for selective coding, we identify patterns to achieve an understanding of our main theme.

4 Findings

4.1 GoCatch: Revolutionizing Australian Transportation

The goCatch (multi-sided) platform represents a major digital disruption in transportation in Australia, similar to Uber in the US, Hailo in the UK and Didi Dache in China. The purpose of the goCatch platform is to provide a service which directly connects passengers with drivers and offers transparency in the hire and service payment process. In recent times, the use of such platforms has begun to attract the attention of authorities, public transport associations and huge million-dollar investments from major technology companies and entrepreneurs. In Australia, Cabcharge has had the monopoly on payment processing for some time. In addition to choice, the simple goCatch platform of providing the location and registration plate of the vehicle is a significant benefit to the customer.

The first iteration of the platform 'goCatch' was launched in 2011 and has since gathered in excess of 150,000 users around the world and over 15,000 registered drivers. The platform offers transparency of the hire process and efficiency of the booking practices. Anecdotal and media describes GoCatch as *"a revolutionary smartphone app that ensures passengers are never again left waiting for the cab that never turns up"*(Duff 2013) and *"(gocatch) is rapidly becoming the most seamless way for drivers to find a taxi and passengers to book one."* (Courtenay 2013). Subsequently, gocatch built an app which went peer-to-peer, from driver's phone to customers phone and you could book and pay for the ride. With the app, gocatch gained the first mover advantage. IT plays a key role in the application, such that IT is the backbone for the service to run smoothly. Frequent updates need to be made in the system to incorporate members or cars included in the fleet of the industry. Our findings are presented below, categorized into the opportunities afforded by IT.

4.1.1 Situational Affordances

Situational-based affordances describe the opportunity presented in a situation to satisfy motivational needs. GoCatch driver 13 added: *"Taxis are very much into total market domination, and I believe they would not be beyond punishing drivers who are subscribed to their dispatch system but actively promoting another service."* This situation afforded the goCatch founders the opportunity to provide a service whereby goCatch drivers and passengers can be connected directly. Its cofounder explained: *"We wanted to build an app that went peer-to-peer, from drivers' phones to passengers' phones and that you could book and pay for taxis… and dis-intermediating XX (company name)."* With the introduction of the app, the firm faced another issue. The co-founder explained: *"We thought we'd just build an app and people would use it and it'd be great. What we didn't foresee was it is a massive challenge to actually get people taxis! Taxi drivers cherry pick the best fares [and] ignore the short fares. It's very difficult to get drivers to pick up passengers during peak periods of demand too. So you get these huge spikes of demand, and then troughs again, so we had to solve that problem."* The drivers' situation is noteworthy. GoCatch driver 6 explains*: "it is a good system but it's hard as jobs are usually on the other side of town when they are offered to me."* This situation afforded goCatch an opportunity to introduce a system to incentivize its drivers to take small fares. The co-founder explained: *"We came up with a system that rewards drivers for picking up the short fares, so what we do now is that we give points [called goPoints] to drivers for picking up jobs, and those points translate to status, so the driver will go from bronze, to silver, to gold, and then when the valuable jobs come through, the $80, $100 fares and the airport runs, we despatch those jobs to the gold drivers first."* In summary, these 'small wins' for the goCatch drivers lure them to use the goCatch app more frequently.

4.1.2 IT-Object Affordances

IT Object-based affordances describe the features of an artifact in its use. goCatch realized the availability of external resources that can assist in the delivery of the mobile application, to capitalize on a first mover advantage in the marketplace and confront the imminent entrance of new competitors within their target market. This included software development competencies and venture capital from a vendor. The ability to capitalize on external networks and reciprocal partnerships affords capabilities not already existent inhouse and are typically beyond the types of capabilities needed for ordinary business opportunities (Lenox, Rockart & Lewin 2007). The goCatch Head of Mobile Development explained: *"With the new job dispatch algorithm, we should've gotten you a taxi that was closer, so that's a combination of things there we can do to fix that, driver engagement, keeping drivers engaged in the application, but also not dispatching the job too far away. We are thinking of SAP for some of the data analytics capabilities".* An IT vendor provided a system that affords decision-making (i.e. which job for which driver) and the coordination of driver allocations (picking the nearest job). The Head of Mobile Development explained: *"It's been the constant iteration of the goCatch system, a lot of the [user interface] around feedback of drivers – important for goPoints, getting the level-ups information is pretty key for [user experience] for the driver".* In summary, the algorithm-based and improved user interface behind the goPoints system encourages regular interaction with the goPoints system and the app.

4.1.3 Motivational Affordances

Motivational affordances describe the opportunities to satisfy motivational needs provided by the relation between the features of an artifact and the abilities of a subject in a given situation. goCatch makes the comparison of its own goPoints system with frequent flyer schemes, indicating a level of awareness that gamification (Deterding 2012; Deterding, Dixon, Khaled & Nacke 2011; Werbach & Hunter 2012) is being applied. According to the goCatch Head of Mobile Development: *"We want drivers to keep the app in the foreground so we want drivers to pick up short fares, for example a badge for picking up 5 short fares, so they get the badge, and get some points."* Drivers are rewarded for desired behavior (by gaining goPoints) and punished for undesired behavior (such as dropping bookings, for which points are lost). The goCatch Support Officer explained: *"You find with a lot of the drivers that they are so points driven, they don't care, it's not even about the monetary value of the jobs they get. It's about being able to get better jobs and regular clients."* Users enjoy a sense of achievement through elements such as the earning of badges or "levelling up" through stages. The goPoints system introduces game elements, such as scoring, challenges in progression difficulty, and competition, which can engage drivers and customers and motivate them to use the service longer and expend more effort into it. Through utilizing game elements such as scoring and competition within the app, drivers act differently and adopt different strategies to demonstrate their competence to get customers. GoCatch driver 11 explained: *"I get 10-30% more jobs. I would've thought money would be a priority [instead of points]."* This reflection was echoed by many other drivers we spoke to. GoCatch driver 3 added: *"We [goCatch drivers] compete with the points."* The drivers' embrace of points over monetary value and their practice of actively providing feedback to goCatch constitute unusual empirical evidence that user behaviour influence may extend outside the realm of the service. GoCatch driver 4 stated: *"Customers like the rating system and so do I. All discussions I have had with the passengers regarding goCatch have been positive."* The Head of Mobile Development summarized the scope of this influence as follows: *"I think they really embraced gamification from day one. That's the really awesome thing about it [the goPoints system], the drivers understood it intuitively, we didn't have to call them or explain and train them, they just saw it, 'ooh, points', and they grab the points".* In summary, relative to the goCatch drivers' skills and knowledge, goPoints affords the drivers an opportunity to experience themselves as competent when interacting with the goCatch app.

5 Discussion and Future Work

The active participation of users is a very common and desired result of collaborative consumption and is a typical characteristic of activity on multi-sided platforms. The opportunities provided by elements in the goCatch booking app result in engagement, problem-solving, and open communication channels between the drivers using the app. GoCatch driver 13 summed up the impact of goCatch: *"goCatch is new here and is faced with strong anti-competitive attitude from XX [a pseudonym] taxis. Also, XX taxis administration has issued a warning notice against using other apps than their own, saying it is safer for drivers to use that issued by XX taxis."* GoCatch driver 4 added: *"Because I believe that the traditional radio networks are useless, expensive and outdated. I also like the driver rating system and believe it will improve customer service."* Sometimes players compete against each other, fostering a sense of competition, other times they may cooperate. Communication between users within the platform through functions such as chats, groups or forums is useful in fostering game-like communities (Romero, Usart, Ott & Earp 2012). According to the previously mentioned studies, the relation between the features of an artifact and the abilities of a subject in a given situation gives rise to opportunities to satisfy the subject's motivational needs. In our example, relative to the goCatch drivers' skills and knowledge, the goPoints system affords an opportunity for drivers to experience themselves as competent when interacting with the goCatch app. Motivation is afforded when the relation between the goCatch features and the goCatch drivers' abilities allows them to experience the satisfaction of motivational needs when interacting with the app. In summary, to explain the achievement of collaborative consumption, it can be stated that situational-based motivational opportunities are afforded when the relation between the features of the goCatch artifact and abilities of the subject (such as the goCatch drivers' ability to choose optimal routes) allows the subject to experience the satisfaction of motivation needs. As illustrated in Figure 1, the process of acting on IT affordances enables collaborative consumption through luring, hooking and engaging subjects. Considering the types of opportunities available, the three stages in the actualization process are explained in more detail below.

The use of the platform as a means to confront problems requires recognition of the potential for IT elements to be adopted by subjects. From our study, it appears that the first stage in the actualization process is for firms and subjects (in this case, the goCatch drivers) to recognize that IT elements could be used as an appropriate solution when formulating strategies to exploit a market (e.g. break the monopoly of Cabcharge) and to address an existing need. While this ***luring*** does not discount the need for an innovative and well executed concept, case findings and the literature supports the idea that experimentation with the artifact plays an important role in the understanding and development of its IT elements. Without knowing what IT elements are available or suitable, the platform could still be implemented; alternative avenues through which IT elements can be recognized include the subjects' previous experiences of other applications in which IT elements have been applied successfully.

In being able to compel users, there is a clear need to utilise the ability of an object to drive user uptake (effectively compelling the subject to actually interact with the object and potentially suggest it to others), and consequently drive overall product acceptance. In our case study, goPoints system is an initiative and IT artifact that affords this motivation. The literature generally supports the use of gaming elements for the purposes of driving user uptake (Deterding 2012; Deterding et al. 2011)and for ***hooking*** the subjects. Effectively, these user uptake outcomes provide a competitive advantage and drive the success of the product offered due to the growth in user base which, for our case organization, is a core contributor to the success of this particular disruptive innovation. This dependency on user uptake is becoming a particularly common trend with emphasis on decentralization (e.g. mesh and p2p networks) where the effectiveness of a concept is reliant on an extensive user base.

In order to better meet existing needs, the use of a multi-sided platform (such as goCatch in this case) generally goes beyond problem confrontation, to the ***engaging*** of subjects (goCatch drivers in the

goCatch case) within the collaborative consumption development process. This may incorporate the acquisition of the subjects' feedback through the proactive request of feedback or through subject-initiated feedback, or even through observing the subjects' actions. The implications here underline the ability of collaborative consumption to alter certain aspects of subject behavior. While these outcomes can be considered positive, they are not necessarily expected or predictable at the point of introducing collaborative consumption.
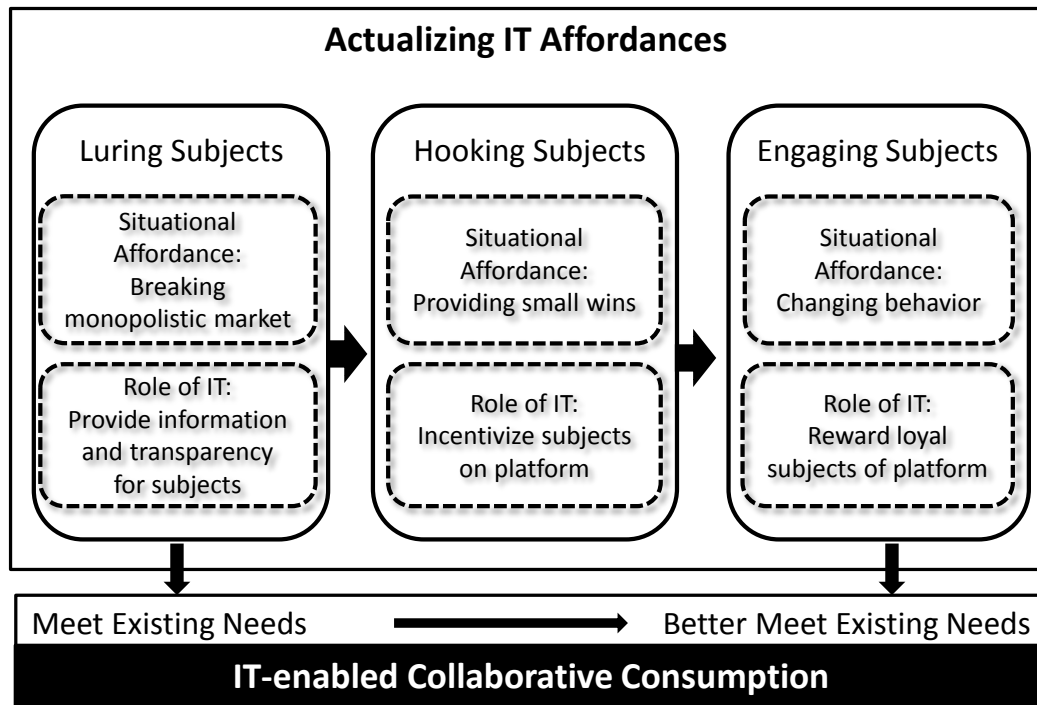

Figure 2.   *An Illustration of how goCatch Multi-Sided Platform affords Collaborative Consumption.*

In summing up, we have seen that collaborative consumption is dramatically changing the way that businesses operate, public services are used and innovations are built. Despite recognition that digital technologies are disrupting established ways of capturing value and doing business, the way in which collaborative consumption is achieved is still relatively understudied. To address this knowledge gap, we conducted an exploratory case study of goCatch, a collaborative consumption platform that uses mobile app and associated IT systems to create value and leverage user interaction. While multi-sided platforms have been shown as a function of driving collaborative consumption, it is not the sole driver. Overall, the process of collaborative consumption is broken down into three phases – luring subjects (recognizing the potential for collaborative consumption), hooking subjects (driving overall acceptance), and engaging subjects (building on the user involvement). Our summary model illustrates that the development of platforms to achieve collaborative consumption and value in an m-commerce context is not straightforward.

Hence, further validation of study findings is required to better understanding the relationship between collaborative consumption, IT affordances and value creation in an m-commerce business. From our summary model, we are developing a research model to further test the relationship between actualization of IT affordances and collaborative consumption. According to previous studies, the relation between the features of an artifact and the abilities of a subject in a given situation gives rise to opportunities to satisfy the subject's motivation needs. In our example, relative to the goCatch drivers' skills and knowledge, goCatch (the app and the points system) affords an opportunity for drivers to experience themselves as competent when interacting with it. Motivation is afforded when the relation between the goCatch features and the goCatch drivers' abilities allows them to experience the satisfaction of motivational needs when interacting with the goCatch app.

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