ABSTRACT

This study seeks to examine the phenomenon and value creation potential of crowdsourcing in the light of recent strategic management literature. A theory building approach is used with seven case studies of crowdsourcing firms. Findings illustrate the phenomenon of crowdsourcing and how value is created. Findings indicate that three dimension are important. The first dimension is that businesses entirely based on crowdsourcing are new, unique and disruptive. The second dimension is that crowdsourcing businesses must attract clients and large crowds who willingly participate anytime and anywhere. The third dimension is crowdsourcing creates value for the firm providing tangible value benefits for clients and crowd. Crowdsourcing is conceived as an activity system with business model design elements. We articulate the contribution in terms of the degree to which sources of value in crowdsourcing are embedded (or not) in existing strategic management value creation frameworks and how it creates value.

KEYWORDS:

Competitive advantage, dynamic capabilities, resource-based view of the firm (RBV), strategy
INTRODUCTION

Value creation is a central concern in strategic management scholarship. Strategic management scholars have been recently engaged in discussions concerning expanding traditional research boundaries pertaining to resource value and value creation beyond and outside the firm (Priem, Butler & Li, 2013). The value creation approach focussing primarily inside the firm is most notably covered by the resource-based view (RBV) (Barney, 1991). This approach is supplemented with the ‘downstream’ consumer demand-side approach (Priem, Li & Carr, 2012), integrative ‘upstream’ and ‘downstream’ value system models (Schmidt & Keil, 2013) as well as expansive nascent approaches encompassing business ecosystems and business models (Zott, Amit & Massa, 2011).

Crowdsourcing is a term first coined by Jeff Howe (2006a) in Wired magazine and is commonly perceived as a Web 2.0 artefact. Web 2.0 is defined as an online two-way social operating system consisting of networks that surround people, rather than simply present content (Tu, Blocker & Roberts, 2008). It is a potentially value-creating phenomenon that is defined as an organisation outsourcing a function once performed by an organisation’s employees to an undefined and usually large network of people via an open call for proposals usually co-ordinated by a firm (Howe, 2006b).

The concept of crowdsourcing is still an emerging research topic (Afuah & Tucci, 2013; Euchner, 2010; Chanal & Caron-Fasan, 2010). Afuah and Tucci (2012) focus on crowdsourcing primarily as a problem-solving mechanism and examine it through behavioural and evolutionary theories of the organisation. They posit that while crowdsourcing is not new, the development of the Internet has opened many possibilities for the phenomenon to play out. Crowdsourcing may be seen as a passing fad or just another business phenomenon which might or might not create elusive long-term value. But what is it and is it a passing fad? How exactly is value created? Is this value sustainable? These questions are important and are starting to emerge in serious academic debate.
Such academic debate recently featured in the *Academy of Management Review* regarding the importance of crowdsourcing and value capture (Afuah & Tucci, 2013; Bloodgood, 2013). This study makes a bold attempt to contribute a comprehensive understanding of value creation as called for in this scholarly discussion and explores the nascent phenomenon of crowdsourcing and examines its potential to create value through competing theoretical perspectives at organisation level.

A firm establishes competitive advantage by creating superior value to its competitors and creates this value through the benefits it offers customers outweighing those associated costs (Afuah, 2013). At this point crowdsourcing appears to be showing some early promise of more sustainable value creation (Carroll, 2011). Indeed, the paid crowdsourcing labour pool contains well over one million workers who have earned $1-2 billion in the last decade, and crowdsourcing vendors, who typically charge a fee or commission, make over $500 million annually (Felstiner, 2010). Crowdsourcing employs over two million knowledge workers, contributing over half a billion dollars to the digital economy (Vukovic & Bartolini, 2010).

Due to the fact that practice leads theory, crowdsourcing demands a strategic literature response to what it is, how it creates value and how it fits with existing value creation theories (Afuah & Tucci, 2013; Bloodgood, 2013). Using a theory building approach utilising case studies of crowdsourcing firms the study seeks to clarify, articulate and build theory on sources of value of crowdsourcing through the following research question: *what is crowdsourcing and how does it create value?*

**LITERATURE REVIEW**

In terms of value creation there are competing streams of literature in strategic management frameworks. In accordance with Amit and Zott (2001), traditional views in strategic management point that value can be created through Schumpeterian innovation (Schumpeter, 1943), the configuration of the value chain and firm positioning (Porter 1985). Their views extend also to network effects among firms (Gulati, Nohria & Zaheer, 2000), transactional economic exchange efficiencies (Williamson, 1985) the creation of resource value, rarity, inimitability and non-substitutability (VRIN) (Barney 1991) and/or the exploitation of specific firm resources and
competences (Teece & Pisano, 1994). In this study network effects among firms (Gulati et al, 2000) and Porter’s value chain positioning (Porter 1985) are not considered strong contenders of value creation. This is due to the fact that in crowdsourcing the crowd is large, free-wheeling and amorphous which makes value chain frameworks unclear and network centrality and inter-network value and behavior difficult to gauge.

Outside strategic management frameworks, value creation is also an important concept. In the marketing literature stream ‘service-dominant logic’ (S-D) posits that service is the focus of economic exchange and the locus of value (Vargo & Lusch, 2006). In this context, value becomes a joint function of both provider and consumer but is always determined by the consumer (Vargo & Lusch, 2006). However, because it is difficult at times to clearly define and/or separate provider(s) and consumer(s) in certain crowdsourcing contexts means applying S-D logic may be difficult in the precise assignation of value. As a result, S-D logic has not been applied to this paper.

In the Innovation stream of literature, crowdsourcing may be seen as a form of open innovation, which is defined as a type of innovation whereby firms access and exploit outside knowledge while liberating their own internal expertise for others’ use (Chesbrough, 2003). Alternatively it may be seen as a form of co-creation where consumers interact with firms to co-create value (Prahalad & Ramaswamy, 2004). While crowdsourcing could certainly take on the form of open innovation or co-creation, it could also instead potentially be a production line, a recruitment method or an efficient mode of economic exchange. Value for a firm could equally emanate from these alternative posturings. In addition, the crowd may (fully or in part) or may not be considered a firm’s consumer in certain crowdsourcing contexts, so co-creation does not apply in all crowdsourcing settings. Some crowds fulfil the role of producer (workforce) and also at times consumer or not.

Crowdsourcing
Crowdsourcing, in its different forms and types and even in hybrid formations of these, has the potential to create value for businesses. Kazman & Chen (2009) see crowdsourcing strategy leading to the creation of value specifically because it harnesses the creative energies of self-selecting participants with little or no financial compensation or formal managerial structure.
Value creation is a key concept in management and organisation literature but it is not well understood, there is little consensus on what value creation is, the process by which value is created and the mechanisms that move it to value capture (Lepak, Smith & Taylor, 2007). What the sources of value creation are in crowdsourcing is also unclear and lacks a unified consensus. Value is created when firms develop or invent new ways of doing things using new methods, new technologies, and so, when the organisation is the unit of analysis, innovation and invention activities impact the value creation process. Value may be captured by the use of resources with attributes that make them difficult to imitate, through the source’s use of creative destruction prior to competitors using the innovation, and though methods of resource management (Lepak, Smith & Taylor, 2007).

Crowdsourcing has the potential to have a marked effect on value-creating economic transactions. In many cases crowdsourcing firms rely solely on their crowdsourcing participants for important firm capabilities as decision-making, innovation or problem-solving (Afuah & Tucci, 2012).

It is still unclear how crowdsourcing fits with traditional frameworks and theories which point to value creation in the received strategic management literature.

**Schumpeterian Innovation**

Clearly, the implication of firms failing to respond to changing market externalities can potentially be Schumpeterian obliteration (Schumpeter, 1943). Schumpeter’s Theory of Creative Destruction posited that the innovative transformation created by entrepreneurs engaged in introducing disruptive technologies sustained long-term economic growth and created wealth while it simultaneously destroyed the value of established dominant companies, not engaged in such innovation. A good example is to consider what crowdsourcing organisation *Wikipedia* – just over a decade old and with its 35 paid staff - has done to the 200 year old firm *Encyclopaedia Britannica* with its 400 paid staff – grown to 25 times its size and almost decimated its business (Angelova, 2010; Wikipedia, 2011).

In relation to Schumpeter’s contribution to distinguishing types of innovation, Casadeus-Masanell and Zhu (2013) highlight the different types of innovation he framed, which includes: new products, new production methods, new supply sources, exploitation of new markets and new ways to organise business. These five types of innovation are individual sources of value creation and crowdsourcing
has been used in a way to engage all these different types of innovation. For example new products are created through crowdsourcing via crowd ideas in Innocentive, a crowdsourcing firm. Threadless, a firm reliant on crowdsourcing for submitting, choosing and buying new t-shirts has designed new production methods, new supply sources, exploited social media for new markets and by so doing has re-engineered a new way to organise t-shirt retail.

**Transaction Cost Economics**

Transaction Cost Economics (TCE) posits that firms’ and markets’ exchange governance is driven by the desire to minimize the direct and opportunity costs of economic exchange, known as “transaction costs” (Williamson 1985). The firm, guided by its goal of transaction cost minimization, helps explain why firms use certain exchange relationship governance tools (Lambe, Wittmann & Spekman, 2001).

In the type of crowdsourcing described as ‘Tournament-based’ (Afuah & Tucci, 2012) crowdsourcing participants compete for a winner-takes-all prize which reduces the transaction cost because the client avails themselves of many person hours of work for what is usually a superior result as a consequence of the combined efforts of the crowd (Shapiro, 2011). The cost is far less than if they had employed staff, agents or contractors to complete the task (Simonson & Brahma, 2011).

In addition, the lack of formal employment contracts and of formal workplace relations allows crowdsourcing exchange parties to largely eschew traditional contracting costs. As well, due to the nature of the task-specific, on-demand labor that offers the efficiency of 100 percent (task-based) utilization, industry reports estimate an additional saving of 10 to 15 percent on each labour transaction in comparison to traditional regimes (Simonson & Brahma, 2011).

**Resource-based view of the firm**

Established economic and strategic management streams point to the configuration of firm resources and capabilities. A firm that has attained a competitive advantage has enhanced its value creation potential. Such value creation is the difference between the benefits of a resource-capability combination and the economic cost to exploit them over rival firms (Peteraf & Barney, 2003). Such firm heterogeneity is a hallmark of the resource-based view of the firm, where a firm’s unique bundle of resources and capabilities create value. Firm value and hence competitive advantage can be created
by a firm via Ricardian rents by virtue of firm resources which are valuable, rare, inimitable and non-
substitutable (VRIN) – a key concept in the resource-based view (RBV) (Barney, 1991; Makadok,
2001; Wernerfelt, 1984).
The VRIN concept in the RBV when applied to crowdsourcing can vest in the crowd - the formation
of which may be viewed as a unique resource. Only in relatively recent history have firms been able to
advantage themselves of relatively cheap, high speed computer networks which now allow
unprecedented access to scaled-up workforces, crowd-based production, crowd intelligence, crowd-
generated monetary exchange (known as crowdfunding) and crowd ideas.

Dynamic Capabilities
The Dynamic Capabilities View (DCV) which was originally constructed by Teece and Pisano (1994)
and focuses on a firm’s strategically-assembled dynamic internal capabilities which when bundled
optimally can foster new and valuable products/processes creation while being ever-mindful of
changing market circumstances. The theoretical construct of the DCV helps to specifically address
the question of how firms can cope with changing environments, systematically solve problems, sense
opportunities and threats to its business and to make timely and market-sensitive decisions to alter its
resource base (Barreto, 2010). Makadok (2001) speaks of the individual element or the combination of
both strategic resource-picking (RBV) and capability-building (DCV) in terms of how firms create
superior economic rents or competitive advantage. His view of resource-picking is seen in terms of a
firm ‘purchasing’ and ‘acquiring good resources’ (Makadok, 2001, p. 388). Crowdsourcing recasts the
organisation’s role in resource-picking to make it a degree more complex than simple acquisition. The
act of organisations ‘resource-picking’ in crowdsourcing scenarios is often more aptly termed
resource-attracting, resource-motivating or perhaps resource-inspiring and this is achieved through a
variety of means including positive brand appeal, trust-sharing, community-building, cash incentives,
fame-potential, altruism/philanthropy-appeal, career-development, reputation-building or pleasure-
appeal (Brabham, 2010; Dellarocas, 2010).

Business Models
Academic scholars, it seems, are laggards in theorizing about new business phenomena and more distant than ever from influencing practice (Corley & Gioia, 2011). A recent review of the business model revealed that much of the associated literature is less than a decade old and only a few academic contributions to the business model have appeared in top journals (Zott, Amit & Massa, 2011). Furthermore, Casadusus-Masanell and Ricart (2010) make the point that while real-life managers must understand how good business models work to ensure thriving businesses, the academic community has only offered the earliest of insights coupled with a lack of agreement on important concepts of business models.

Business models have been posited as the ‘architecture’ of value creation (Teece, 2010). The business model, due to its holistic nature, encompasses a ‘downstream’ view in which end-consumers, in contrast to a single focus on the firm itself, become a consideration in value creation.

So, the way in which crowdsourcing firms access crowdsourcing capabilities and resources, create innovation and ideas, efficiently mediate demand and supply transactions, produce collective intelligence and can attract and grow a huge and scaleable global workforce with relatively cheap economic transaction costs via Internet networks is intriguing and worthy of further investigation on how value is created and what are the sources of such value creation. How crowdsourcing measures up against traditional value creation theories is likewise intriguing. We are also responding to Afuah and Tucci’s (2012) article on crowdsourcing which predicts crowdsourcing to be “a rich source of theoretical and empirical knowledge and scholarly activity for many years to come” (p.372).

**METHODS**

The study was qualitative and inductive which was justified because firms using crowdsourcing as their major revenue source have only emerged within the last two decades and, in addition, Web 2.0 style crowdsourcing itself is relatively nascent.

Our research used an inductive and multiple-case design (Eisenhardt & Graebner, 2007). The study was grounded in a qualitative study of seven firms using crowdsourcing as their major revenue source (Table 1). The case studies used multiple sources of data such as interviews, qualitative surveys,
emails and phone calls, media reports and interviews, document analysis, site visits, online website material, firm blogs and archival material.

We used purposeful sampling of two distinct informant groups, namely, firm executives and firm crowd members. These informants were deemed to have unique insights and expert knowledge of crowdsourcing in a real-life context. The firm owners had all built successful and growing firms which were entirely crowdsourcing-focussed and only qualified if they had crowds over 50,000. This manner of firms using crowdsourcing had to be of a critical and indeed existential nature. Three of the seven crowdsourcing firms were sourced at Crowd Conf 2012 – an industry crowdsourcing conference in the USA. The other four firms were contacted direct by the researchers to request participation.

The firm executives were located in four countries Australia, Canada, United States of America (USA) and Nepal. The matched crowd members who were interviewed were located in 10 countries including Australia, Canada, Nepal, New Zealand, Philippines, Serbia, United Kingdom (UK), Ukraine, USA and Venezuela. All crowd interviews were conducted one-to-one and four out of 21 were face-to-face. The remaining 17 crowd interviews were conducted remotely by telephone, mobile or skype. In total 45 semi-structured interviews were conducted including a cross-case matched selection of similarly-ranked firm executives and each firm’s corresponding crowd members. The main interview questions asked of each group (firm executives) is detailed at Appendix A. Interview questions were derived from the value creation literature and contained derived elements from the resource-based view, dynamic capabilities, Schumpeterian innovation and transaction cost economics.

The crowd members were matched to the firms and were recruited through direct contact by the researchers or on recommendations by the firms. One firm did not allow the researchers to contact its crowd because of privacy laws. All crowd members were experienced and dedicated to crowd work. Some informants performing crowd tasks up to 18 hours a day, every day.

In keeping with the prescriptions of Glaser and Strauss (1967), we employed consistent interview and written survey questions to all informants in each of the two groups so as to allow constant data comparison data across both groups of informants over time. The data was analysed with an overall
grounded theory approach with no a priori hypotheses and using inductive style analysis utilising open coding (Glaser & Strauss, 1967; Strauss & Corbin, 1998). Researchers analysed the data using observations among emerging data, themes, concepts and dimensions which built a data structure featuring first order concepts refining to second order themes and then resulting in a finalised aggregate of dimensions (Gioia, Corley & Hamilton, 2012). This was a fluid process and honoured the tradition of inductive research. To start, we used techniques involving in vivo line-by-line coding (Strauss & Corbin, 1990). These codes were analysed in NVivo10 software for thematic similarity. At the same time as the in vivo coding work, the researchers also constructed fine grain tables of significant quotes and gathered details regarding each firm including notes on observations of three firms, Facebook and Web-based company pages and further press interviews conducted by some of the informants (Miles and Huberman, 1994). To remain true to the data and the inductive flavour, we, in tandem with in vivo coding usage also used first order codes, whereby the language used by the informants was used as frequently as possible (Gioia, et al., 2012; Van Maanen, 1979). The results were initially coded manually into a spreadsheet. We repeated the line-by-line in vivo coding to code directly into NVivo 10 software database. Both spreadsheet and databases versions of coding had high levels of congruence. Our repetitive data collection resulted in the exponential building up of themes until no new themes were appearing and data saturation was thereby achieved. The initial coding provided emerging thematic codes for executives with 63 initial coding nodes with 1,528 individual associated coding references. The crowd elicited 90 initial coding nodes with 1,104 individual associated coding references. A summary of steps taken to ensure the reliability and validity of the data is contained in Table 2.

FINDINGS

The codes from both groups of interviewees were eventually selectively coded and cycled into 28 first order concepts. These 28 first order categories were completely informant-based and arose from in vivo line-by-line coding. After further analysis the researchers categorised the 28 first order concepts...
to ten second order themes to form the basis of the emergent framework concerning the phenomenon of crowdsourcing and how it creates value and these were further condensed to three aggregate dimensions (Gioia et al., 2012). Table 3 displays the informant quotations which relate directly to and help validate the second order themes and aggregate dimensions.

Figure 1 outlines the informant-based first order concepts leading to second-order themes and then to aggregate dimensions – albeit not intending to convey cause and effect. In relation to crowdsourcing firms, our findings point to what type of business, how they are formed and designed and, in addition, how they create value.

Figure 2 outlines the essential characteristics, functioning and value emanating from crowdsourcing firms based on the grounded research from the emerging themes, concepts and aggregate dimensions established from the informant quotes as outlined in Table 3.

**DISCUSSION**

Despite early theoretical efforts to uncover value creation drivers in both eBusiness and crowdsourcing domains (Afuah & Tucci, 2013; Amit & Zott, 2001; Bloodgood, 2013), and in response to the dearth of empirical studies on crowdsourcing (Afuah & Tucci, 2012), existing work has not produced a comprehensive rendering of what crowdsourcing is or of its value drivers. This study revealed that there were ten main themes emerging from the data which yielded three aggregate dimensions of crowdsourcing. These three include: firstly, that crowdsourcing businesses self-identify as a unique type of trailblazing business model which is disruptive to rival businesses in the same industry; secondly, that crowdsourcing businesses must attract clients and large crowds who willingly participate anytime and anywhere; and, thirdly, crowdsourcing creates business value and provides tangible value benefits for clients and crowd.

The study provides the following grounded theoretical findings in relation to crowdsourcing:

1/ It is new, unique, disruptive, innovative and novel;
2/ It is crowd/client participatory, engaging and self-selection oriented;
3/ It has ‘anyone, anywhere, anytime’ ubiquity;
4/ It provides value and mutual, tangible benefits for all parties involved;
5/ It is practiced globally in almost all countries.
It usually operates on a basis of either competition or mass collaboration. It involves very large crowds participating.

Therefore, crowdsourcing firms establish competitive advantage through innovation, novelty and industry disruption. The firm owners self-portray as innovative trail-blazers who run novel businesses which disrupt like firms in the same industry. Crowdsourcing businesses run through continuous global, open call attracting those willing to participate in the crowd. The firms are expert in efficiently running large numbers of simultaneous projects and handling the input of huge numbers of individual contributions. Value is derived by establishing a competitive advantage over rivals in terms of quality, size, scale and speed and by establishing value offerings for all parties and involving all three groups tightly in the process of crowdsourcing. Demand and supply elements are inter-twined in the crowdsourcing process.

One theoretical contribution is that such findings would speak to the notion that crowdsourcing qualifies as a business model and operates an ‘upstream’ (firm-centric) and ‘downstream’ (consumer demand) system where all parties including firm, crowd and client are tightly linked and interwoven (Priem, Li & Carr, 2012; Zott, Amit & Massa, 2011). Crowdsourcing may rightfully be named as a business model and be seen as a holistic system where value is received and created in a multitude of places and from different perspectives. The resource-based view notion of VRIN is most often focussed strictly on the firm as the locus of value creation. The firm-centric view of value creation is important but the downstream (consumer demand) is equally as important – particularly in crowdsourcing where the firm can divest some traditional firm-specific capabilities directly to the crowd. Also in some crowdsourcing scenarios, the crowd can function both upstream and downstream simultaneously within its value system.

In terms of other existing frameworks all firms are industry disruptors and exemplify levels of Schumpeterian innovation. All firms are dominant niche players in their respective industries – both producing niche services, a new way of doing business and dominating their respective online markets. The Schumpeterian notion that crowdsourcing exists as a new way of doing business and that it invents a new source/manner of collecting labour and productive output also speaks to its value creation potential and/or realisation. Inherent to crowdsourcing as it is practiced is the understanding
that it is a system of mutual benefit for all parties. Clients get results “better, faster, cheaper” in the words of the CFO of Firm D. The crowd reaps a variety of value, through a key feature of what crowdsourcing is, that is, chiefly a new method to source work and potential payment. The theoretical contribution is that crowdsourcing is one of the most contemporary examples of Schumpeterian innovation and a new and industry-disrupting way of doing business.

Each firm has indicated categorically that the crowd is their greatest resource. The sheer unprecedented sizes, global reach in the range of 100 -192 countries and niche specialities (particularly firm B) of each firm’s crowdsourcing workforce in their industries is an outstanding example of the elusive value-creating VRIN of the resource-based view (Barney, 1991).

In terms of TCE theory (Williamson, 1985), each firm is a highly efficient mediator of demand and supply forces in its marketplace. Only the successful individual or team behind the crowd-supplied product or service receives payment from the client. Most crowd production is therefore rejected and unsuccessful crowd members are not formally compensated through any payments. Such crowd production in these instances is vast, for example firm A receives new production material from a crowd member every five seconds and Firm G receives over 300 crowd production material items per day. Such vast quantities of crowd produced items are controlled and governed by strict technology protocols. In addition, Firm A partially mitigates the production wastage by having an after-market site for rejected, unpaid crowd production items at reduced prices to encourage clients to purchase.

The managerial implications related to the findings is that crowdsourcing is a novel business model, which has value drivers around innovation, efficiency via reduced transactional costs, unprecedented access to and scaling of human resources and global engagement of vast quantities of human resource talent.
REFERENCES


Table 1 – Case study participant firm details

<table>
<thead>
<tr>
<th>Firm</th>
<th>Headquarters</th>
<th>Staff</th>
<th>Crowd Size</th>
<th>Industry</th>
<th>Firm Maturity</th>
<th>Interviewees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm A</td>
<td>Australia</td>
<td>75 FTE</td>
<td>228,000</td>
<td>Design</td>
<td>Start-up</td>
<td>Founder/Chief Executive Officer, Chief Technology Officer, Production Manager, 3 crowd members (+2 crowd member surveys)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Founded 2008</td>
<td></td>
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<tr>
<td>Firm B</td>
<td>Canada</td>
<td>30 FTE</td>
<td>200,000</td>
<td>Marketing Research</td>
<td>Start-up</td>
<td>Founder/Chief Executive Officer, Chief Marketing Officer, Creative Services Research Lead</td>
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<td></td>
<td>Founded 2009</td>
<td></td>
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<tr>
<td>Firm C</td>
<td>Nepal</td>
<td>50 FTE</td>
<td>150,000 – 1,000,000</td>
<td>information tech services</td>
<td>Start-up</td>
<td>Founder/ CEO, Product Manager, VP, Business Development, 4 crowd members (+8 crowd member surveys)</td>
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<td></td>
<td></td>
<td>Founded 2008</td>
<td></td>
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<tr>
<td>Firm D</td>
<td>USA</td>
<td>50 FTE</td>
<td>5,000,000</td>
<td>Services</td>
<td>Start-up</td>
<td>Founder/ Chief Executive Officer, Founder/Chief Technology Officer, Chief Financial Officer, 5 crowd members</td>
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<td></td>
<td></td>
<td>Founded 2009</td>
<td></td>
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<tr>
<td>Firm E</td>
<td>Australia</td>
<td>300 FTE</td>
<td>7,300,000</td>
<td>Services</td>
<td>Start-up</td>
<td>Founder/ Chief Executive Officer, CTO, Client Services Manager, 3 crowd members</td>
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<td>Founded 2009</td>
<td></td>
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<tr>
<td>Firm F</td>
<td>USA</td>
<td>20 FTE</td>
<td>100,000</td>
<td>Science</td>
<td>Start-up</td>
<td>Chairman, Founder/CEO, Scientist, 4 crowd members</td>
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<td></td>
<td></td>
<td>Founded 2010</td>
<td></td>
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<tr>
<td>Firm G</td>
<td>USA</td>
<td>106 FTE</td>
<td>2,500,000</td>
<td>Fashion Design &amp; Retail</td>
<td>Start-up</td>
<td>Founder/CEO, Chief Creative Officer, Business Dev Manager, 2 crowd members</td>
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<td></td>
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<td>Founded 2000</td>
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</table>
Table 2 - Validity and Reliability - through the course of research

Based on Gibbert, Ruigrok & Wicki (2008); Reuter, Foerstl, Hartmann & Blome (2010); Scandura & Williams (2000); Yin (2009).

<table>
<thead>
<tr>
<th>Reliability/Validity Criterion</th>
<th>Research Phase</th>
</tr>
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<tbody>
<tr>
<td><strong>Reliability</strong> (demonstrating that operations can be repeated with same results.)</td>
<td>Design</td>
</tr>
<tr>
<td></td>
<td>Strict case study protocol developed. Repeatability of interview questions was established and used. Survey interview questions mimic the oral interview questions. Observations and interviews were recorded and accurately transcribed.</td>
</tr>
<tr>
<td><strong>Internal Validity</strong> (establishing a causal relationship, where certain conditions are show to lead to other conditions).</td>
<td>Impression-forming online exercise and previous value creation literature, theoretical frameworks/models used as a starting point. This helped to establish progressive explanation-building potential.</td>
</tr>
<tr>
<td><strong>Construct Validity</strong> (establishing correct operational measures for the concepts being studied).</td>
<td>Study established chains of evidence with multiple informant groupings, data sources and units of analysis.</td>
</tr>
<tr>
<td>External Validity (establish a domain in which the findings can be generalised).</td>
<td>The scope of the sample was consistently within companies using crowdsourcing as a major business model &amp; all firms were small to medium enterprises and less than a decade old therefore each firm provided the basis for replication logic across the 8 firms. Interview questions/survey questions were replicated across both groups in a consistent manner. Extant literature potentially provides a basis for evidence comparison.</td>
</tr>
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</table>
Table 3. Informant quotes combined with Archival and Observation data which substantiate first order concepts, second order themes and aggregate dimensions.

Theme 1: The entire business is based on crowdsourcing

<table>
<thead>
<tr>
<th>First order concepts</th>
<th>Substantiating Informant Quotations, Archival and Observation Data Illuminating Second-order Themes</th>
</tr>
</thead>
</table>
| The company was born crowdsourcing | "Basically our entire business model is built on the premise of crowdsourcing." (CTO, Firm A).  
...the company (Firm B) was born out of a crowdsourcing community (Quote from CEO and Founder of Firm B, by Calgary Herald, February 17, 2014, Business, International Sales, http://www.calgaryherald.com/business/International+sales/9490862/story.html)  
"It wasn’t a company doing normal things and then adding crowdsourcing to its repertoire, it was a company that was born crowdsourcing." (Chairman, Firm F). |

From its start the company was open to fostering and employing crowds | We learned that it’s fairly difficult to get consistently valid and good results from the crowd, and at the same time we also saw the huge potential and a really interesting business to pursue in leveraging the power of a crowdsourced intelligence and then in the matter of an evening you could change the algorithm and you could send it out overnight and by the time you got back to the office the next day you had labels which you could actually use to inform you if you need to change the algorithm or if it got worse or better, whereas in the traditional model, you would send it out to a team that is working 9-5 and it can take them a week to actually give you results back." (CTO, Firm A)  
"He sketched on a napkin an idea of you know, how he could build a crowdsourcing community of software development enthusiasts, their ideas and then using that same crowd to kind of you know, find the best ideas, collaborate with the crowd and then ultimately fund those ideas based on the crowd perspective." (CEO, Firm C)  
"We don’t have a high turnover of successful freelancers. We have a lot of people continuously signing up, and so there is in fact always and always has been, and I suspect always will be, an over-supply of freelancers. There are many more freelancers than there are jobs." (CTO, Firm E).  
"You know for four years like we really just kind of treated it like we built this entity that people like to hang out at, you know think if you put a public park and it got really you know, like really, really popular, it was like an important part of the city, like you would never, like all of a sudden, like make people have to pay to go there, right. We made sure that it like stayed how it needed to be and the way that, if we needed to make more money, then we just figured, ok how is money coming in now, and well just try and scale that versus like, you know trying to shove marketing down people’s throats." (CCO, Firm G). |

Theme 2: Crowdsourcing owners are pioneers and trailblazers

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| Crowdsourcing is a new and unique sort of business | "I mean we’re in an industry that didn’t exist five years ago, and even today, it’s still a burgeoning not-that-well-known buzzword, I still can’t really describe to my mother what it is that we actually do." (CTO, Firm D).  
"Yes, and when we launched our community, we didn’t actually know, we didn’t have a term for it. So you know, we were doing it, but we didn’t know it was crowdsourcing until Jeff Howe who wrote the crowdsourcing book contacted us and said: “hey, you guys, you’re crowdsourcing, I’d like to write about you in our book” and we’re like, “that’s great, now we can kind of define what we’re doing”.” (CMO, Firm B)  
"Yes, I think a good way to think about is you know, if you’re looking at a traditional MBA model of how you grow a business, we definitely go against those traditional models, and we do that for a reason, we feel like regardless of the country and what needs there are, we always seem to find a large group of hungry well-educated individuals that need work, and we find they do great work, you know, we couldn’t, we’re not – we’re actually really whatever what should I say - blessed by them, we feel fortunate to have these people (CTO, Firm C).  
"Yes, it’s meant to be a hybrid model between the two – outsourcing and crowdsourcing...We do for sure, yeah, we have – obviously we think we’re unique in many ways (CEO & Founder, Firm C).  
"But it’s not like the whole world understands that they should solve their business problems with crowdsourcing, and you’ve been to CrowConf, you know, it’s the world’s biggest crowdsourcing conference and there’s only 600 people there, and oh by the way they’re not just talking about crowd funding and crowd innovation and O-Desk and we see the people who sell $500 projects instead of $5 or 5 cent projects. So this is still an underground technology and we are selling to a very exclusive group of people. (CTO, Firm D).  
From Observation Notes: The businesses portrayed themselves as ‘cool’, non-traditional and somewhat mysterious. Of the three firm sites visited (two in USA and one in Australia) all were extremely difficult to find, had no signage and were in ‘creative’ locales in their respective cities. No-one wore suits and it proved difficult to find...they were talking about crowd funding and crowd innovation and O-Desk and we see the people who sell $500 projects instead of $5 or 5 cent projects. So this is still an underground technology and we are selling to a very exclusive group of people. (CTO, Firm D). |

Crowdsourcing business owners think differently | "He kind of wasn’t encountered by those pre-definitions about what would work and what wouldn’t work, but also unenunciated by you know, like set rules and regulations and would really challenge the team to go – well how can we get around this, what would be the opportunity" (CEO & Founder, Firm B).  
"Yes, I think we’re a little different, there are other competitors in this space. I mean you know, companies like that in that realm I think we would consider you know, even sometimes, you know maybe partners with some of them, it’s still I think we like still have something pretty unique from our competitors. I think everyone (here) is doing something a little differently. (Bus Mgr, Firm B)  
"But that’s where we are massively, massively different from any other player. Because every other player has a crowd, and they try to recruit a crowd and curate that crowd so that their crowd has particular competences. And we don’t do that at all, we use the crowd, not a crowd. So we make our work available anywhere anywhere there is a community." (CTO, Firm D).  
"There’s a few copycats out there that kind of duplicate our model, but none of them have ever really reached scale. I think it’s easy to just say we have technology platform that anybody could build you know, because it’s actually pretty simple software to put out - just upload a software design and vote on it, but the secret is really in the people using it, and it’s very hard to get access to the artist community, like we’ve been able to do over the years" (CEO & Founder, Firm G). |
Crowdsourcing business owners are pioneers

“So what we’ve done is you know, I think what we’ve done you know, is really pioneered the application of crowdsourcing or you know a group of people solving a common problem” (CTO, Firm A).

“Yes, and I think we were a bit of a trail-blazer, so I think that the people that started other crowdsourcing companies following that were members of our community, watched our successes and failures and kind of took that into their own ventures and knew what worked and what didn’t work too, so I think we were definitely breaking new ground.” (CEO & Founder, Firm B).

Crowdsourcing is a big craze today, but local startup, (Firm B), has been in the space since 2009, working with early adopters to help them use the power of crowdsourcing to gain actionable insights on their business. (Company website, Firm B, 27 September, 2012, News).

(Firm B’s CEO) is an accomplished and highly successful entrepreneur. After years of pioneering work in the emerging field of crowdsourcing, she founded (Firm B) in 2009, helping clients such as P&G, University of Oxford, American Airlines, and Orange Telecom to gain a new level of market intelligence through crowdsourcing. (Company blog, Firm B)

So that is, I know you probably looked at other companies, I think that (we are) unlike every other company (CFO, Firm C).

Theme 3: Crowdsourcing businesses are innovative and disruptive to other businesses

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<tr>
<td>Crowdsourcing businesses are disrupting industries</td>
<td>“But I would say, at its heart, we have used crowdsourcing as a way to disrupt an industry, you know, like graphic design, you know. Previously people were limited to you know, maybe three or four concepts from a single designer you know, maybe it was their nephew or their niece, you know, maybe it was a student, maybe it was a graphic design shop down the road.” (CTO, Firm A).</td>
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<td>Crowdsourcing businesses are highly innovative</td>
<td>“Right and so we believe that you know, we’ve done something good in flipping that model on its head saying well actually the only thing that should matter is the quality of the work” (CTO, Firm A).</td>
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The crowd itself can offer highly innovative solutions

Like there was one competition recently that I was entering and it like, very quickly people found it - a new data solution, it was about locating whales based on the sounds that they make. I like whales. (Y, Crowd, Firm F).

In less than a week a glaciologist from Cambridge had produced an algorithm that out-performed those developed in over a decade of research in the space agencies. (Crowd member, Firm F).

Australian Broadcasting Commission, Catalyst Science Program Broadcast, August 2011, http://www.youtube.com/watch?v=638t74wAvhE
Theme 4: Crowdsourcing involves handling lots of people and jobs/projects efficiently

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<tr>
<td>Scale and size of crowds attracted by crowdsourcing firms are great</td>
<td>I mean we have designers in 182 countries...we’re way bigger than anybody else, so that’s great. (Product Mgr, Firm A).</td>
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<td>Waste or excess or inaccurate production of crowd effort is handled efficiently</td>
<td>(Firm E) can produce several years of work per day. (CEO &amp; Founder, Firm D).</td>
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<td>Crowdsourcing is a new employment avenue involving participating and at times self-managing crowds</td>
<td>In the past thirty days alone we paid out $1.6 Million to graphic designers. (Product Mgr, Firm A).</td>
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Theme 5: The crowdsourcing business, its clients and its crowd are all essential elements to successful operation

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<tr>
<td>Crowdsourcing businesses represent an activity system or business model innovatively incorporating demand &amp; supply elements</td>
<td>For customers (Firm D) adds value by providing a scalable workforce and high quality workers. For crowdsourced workers (Firm D) establishes a meritocracy and allows the workers to earn more and more money. (CEO &amp; Founder, Firm D).</td>
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...
Crowdsourcing would falter without all parties including company, client and crowd participating

> They (clients and crowd) certainly overlap but we each, each party has their own unique interest that they are also trying to pursue, right, and what is really great for the client is not necessarily great for designers and so because of the two sided marketplace and the money that is primarily coming from the client side, it's very easy for the company to fall into a trap of just solving customer problems, oh well if we solve these problems we could drive more business and we'll make more money for the business and all of this sort of stuff and that is fine, you have to do that too, but the reality is without the designer community there isn't a business either, so even though they are not directly paying us money, the business doesn't exist without them, so I thought it was really important to have somebody looking out, after that side of the business. (Product Mgr, Firm A).

> Yes, you're going to get that overlap of people (crowd and customer). Initially everybody is going to be a customer you know, because those are going to be the only people you can have doing tasks as they are popular. But once people have started participating in crowdsourcing you know obviously there's some people who are going to be like all customer and no participation or all participation and no customer, but there is always going to be a good enough amount between the two to have the business be healthy. (CCO, Firm G).

> Yes, I think it's a combination of both, so we certainly have a lot of clients that are growing quickly just like we've grown up 100 times over the last eight months in terms of our number of tasks that we've done, eight months ago we were only doing five thousand tasks a week and today we're doing five million tasks a week, so we grow as our clients are growing, and fortunately we have some very high growth clients. (CEO & Founder, Firm E).

Large crowd numbers are important in crowdsourcing businesses

> There are 100 million people that are members of communities at which (Firm D) work is available, 14 million of them have at some time or another looked at one of our tasks to decide whether they wishes to do it or not. Four million have actually applied for tasks for us, and on the average day we have 20,000 – 25,000 new people and we have no idea who they are, they are just an IP address. (CFO, Firm D).

> Well I mean we've huge liquidity in the market place, so we've got 7 million users. (CEO & Founder, Firm E).

Theme 6: Crowdsourcing is always available at all times to people willing to participate

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| Crowdsourcing is a global Internet-enabled business and Always on | 'Yes, so we've still got quite a large contingent in the US and recently that was eclipsed by Indonesia, the Philippines and then Eastern Europe as well, so countries like Bulgaria, Serbia, Romania.' (CTO, Firm A).

> 'The crowdsourcing allows us to tap people with different skills for us right. They come from different backgrounds, and I mean the opposite of crowdsourcing businesses would have been if we had employed those people in-house, right. But everything cost-related would have been like prohibitive, like we would have had to pay for their management costs, administration costs, right, now what crowdsourcing allows us to do is access experience of these people remotely over the internet' (Product Mgr, Firm C).

> 'Look that soft platform that manages everything from worker retention and grading to setting up gold standards for testing, worker reputation engine, so we definitely provide that, some of them have – in terms of hardware some of them have their own, some of them go to internet cafes.' (VP, Bus Dev, Firm C).

> 'The customers are about 60% outside the US, and the crowd, the community that submits and scores designs are more international, like more than 70% international. But there is not like one demographic, I mean it's anywhere from high school students to art directors at agencies, to even like, we've printed people in their sixties, it's kind of all over the place.’ (CEO, Firm G)

> 'The big difference is that we've got a lot of (crowd) coming from Eastern Europe, Indonesia, Philippines, which is not our customer markets for us, but big (crowd) community. Brazil is a big (crowd) community. Chile, the UK. The UK is quite big for us in terms of artist community because of the focus on art. We're starting to break through in Asia a little bit. We're seeing like the Asian community – the oriental Chinese, Asian community starting with the very artistic, but we've never really marketed ourselves there, so we think that there's a lot of growth in these regions for us once we get a foothold in there.' (BDM, Firm G).

Most countries in the world now participate in crowdsourcing

> I mean we have designers in 192 countries. You know, they – up until very recently the largest community of designers was in the US and recently that was eclipsed by Indonesia, and we have large populations in like Eastern European countries, the Philippines is a pretty big one, Australia, Canada (Production Mgr, Firm A).

> 'Our workforce is in over 80 countries.' (CEO & Founder, Firm D)

> 'Yes, so I don’t actually think it is in fact most in the US but they are the largest source. And then, the largest of the freelancing sites – are countries is India but I mean down that list from there it sort of goes through me I mean, a lot of the developing world, Bangladesh, Pakistan, the Philippines, but also a lot of Eastern Europe actually is quite big for us, places like Romania... And yes, and on the employers’ clients side, it's basically a lot of the developed world, particularly, with a particular focus on sort of the Anglophone - Australia, Canada, the UK, but places like Germany, France are quite big for us, but I mean broadly all of the developed world, I mean we don't see much maybe from Japan, I mean we see bits but considering their size, but yes I mean, we have users everywhere literally.' (CTO, Firm E).

> 'Probably just about every one. Actually not sure if it's every one, but it certainly yes, I don't know exactly how many countries, but it would be I'd say about 100, it's definitely more than 100.' (CEO & Founder, Firm F).

Crowdsourcing businesses offer a new employment/payment avenue for developing country populations which are increasingly participating in Internet-enabled businesses

> There's also the economics of it, you know, $500 in San Francisco is different than $500 in Jakarta, right, so the amount of effort that somebody is going to put in you know, in San Francisco, versus the amount of effort that somebody will put in in Jakarta is totally different, so you have these kinds of dynamics that go on, but truthfully the US is a hugely active country for us, but they participate in a completely different way than the people in Indonesia would or the Philippines would, because you know like somebody in the Philippines, they could make a month's income within one contest, and I mean, some of the larger contests you could do that in the US, but still not as clear, and definitely not as much... I mean for the contest where you're winning $2500 or whatever, $5000 even, I mean that's great, someone couldn't, that is, that you know a month's income is great, so there's somewhere around there, depending on where you are and whatnot, so for an Indonesian when $400 can be a month's income and $1000 – wow that's crazy, like this is fantastic.’ (Production Mgr, Firm A).

> 'Yes, we could never offer money, just for legal reasons around the globe, so if we did do any, you know, prizes it would be typically like a gift card and I think, I mean you could check up some of the websites we have there that are, that could be, that might give you a run of what we have available, yes and what they thinking of now is definitely like an Amazon card, that kind of thing.' (Creative Service Research Lead, Firm B).

> 'When you think of Finland, you think of Nokia, you know, and that's what we want, we want to be you know, the same thing. It's like Nepal - oh (Firm C) – we want it to be a win for the whole nation, this idea of innovation that comes out of the last place on earth that you would think it would come from.' (CEO, Firm C).

> 'The other area we see a lot of growth in is e-government work in developing countries, so while we're working our workforce in developing countries, there's a lot of developing countries that have initiatives to digitize their federal and local records, and they're kind of just like the mobile industry where these countries are skipping
Theme 7: Crowdsourcing offers a competitive advantage over traditional businesses

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<tr>
<td>Crowdsourcing businesses are better, faster, cheaper and reduce risk for clients</td>
<td>We can do it better, faster and cheaper, and I mean that, it’s better, it’s faster and it’s cheaper. Even very, very simple tasks like the image moderation work we do. (CFO, Firm D).</td>
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<td>What I have to be able to do is deliver (clients) an answer in which I have mathematical statistical proof of that there is a 95% probability that the number I’ve given them is correct…The value-add here in the emerging science of micro-tasking of which we by far are the world leaders, is actually about the management of highly complex workflows with massively tough computational problems that sit behind the solution. (CFO, Firm D).</td>
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<td>The best anyone had managed to do was a 70% prediction accuracy and that was after four years in academia, and we were able to beat that within a week and a half of the competition going live and we ended up two months later with an algorithm that generated 77% accuracy, one tenth of an improvement, so you know, that’s a pretty spectacular result. (CEO &amp; Founder, Firm G).</td>
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<td>Crowdsourcing businesses are global and always available</td>
<td>I mean we have a new design that is submitted to the site every five seconds, right, so it’s a huge amount of work. (Product Mgr, Firm A).</td>
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<td>So I mean in terms of employers, No.1 U.S. 50%, - No. 2 is UK 10%, - No. 3 is India 7%, then - Australia 5%, - Canada 4%, and a very long tail, and in terms of (Firm E) crowd 35% or in India and in terms of the world as a whole we are getting paid as what we do. It’s just that I have to give more time to earn the same amount that I used earn a few months before. This is the major discouragement for workers, the price of US dollars is rising. However, our rate is decreasing and we cannot question about this to (Firm C) because worker contract has been signed as such. (GD, Crowdsourcing, Firm C)</td>
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<td>Crowdsourcing businesses operate at huge size and scale</td>
<td>I don’t know exactly what the current numbers is, but it’s about 600,000 registered users of which about 150,000 or 200,000 do work on the average day (CFO &amp; Founder, Firm D).</td>
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Crowdsourcing businesses operate at huge size and scale

I don’t know exactly what the current numbers is, but it’s about 600,000 registered users of which about 150,000 or 200,000 do work on the average day (CFO & Founder, Firm D).
Theme 8: Crowdsourcing offers tangible benefits and exceptional value for clients

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<tr>
<td>Crowdsourcing businesses offer more choice to clients</td>
<td>‘Yes, sometimes they (the client) can get 80 – 100 different designers.’ (CTO, Firm A).</td>
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<td>‘I think it just makes it very attractive, I think anybody who is you know, who has tried to work with or hire a designer, this is a very different experience, so they’re like wow, you know, I was used to struggling and maybe finding a person and getting one or two concepts, and now you’re telling me that I can get like 30, 40, 100 concepts from all sorts of different people, work with them, decide if I like them, and then you know, continue an ongoing relationship going forward, great, that sounds perfect, I would love to do that.’ (Product Mgr, Firm A).</td>
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<td>Crowdsourcing businesses enable superior service offerings</td>
<td>‘We run tests and we’re about 40% more efficient than your average data entry worker that’s just sitting in the office entering data for eight hours a day.’ (CFO, Firm C).</td>
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<td>‘We’re really not interested in a fringe solution for like warranty card entry or something that’s a side effort to their business, we want to be right in right involved in their core value, in fact, most of our customers would say that we allow them, we enable them to deliver their core differentiator, so in terms of time, we make them faster than any of their other competitors, or we make them more accurate, or we’re able to do it at a better cost than their competitors.’ (CFO, Firm C).</td>
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<td>‘So if they come to us and we give them a contract, generally it’s very flexible, in that today you might have a thousand pieces of content, and tomorrow you might have ten thousand or one hundred thousand, so we can actually scale for that and it doesn’t drastically increase your cost nor does it take a big amount of time to actually make that happen, whereas it would with a traditional outsourcing firm or an internal team.’ (CTO &amp; Founder, Firm D).</td>
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<td>Crowdsourcing businesses offer participatory client engagement</td>
<td>‘The fact that we have on average 300 designs coming to Firm A a day, from all parts of the world, and it’s an open call, you know you can come to (Firm G), and actually you know we’re doing a lot to increase that user experience, so we’re using, one of the things that we’re doing is we’re using technology and applications of technology such as notificator, gamification, badging to continually drive relevance to the artist community right, so it makes their job easier, when they post something.’ (BDM, Firm G).</td>
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<td>‘They’re designs that are submitted and sometimes they go through like dozens of rounds of community critique and the community is helping the designer make those designs better and finally it gets submitted and it scores well.’ (CEO &amp; Founder, Firm G).</td>
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<td>‘It’s actually something that is at the heart of our company, so we sort of get down to the nitty gritty like we believe we’re democratizing advertising market intelligent, we’re actually putting the consumer, the customer or...’ (CEO &amp; Founder, Firm G).</td>
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Theme 9: Crowdsourcing fosters various types of value for the crowd

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| The crowd may attain employment, income, career or personal development, a better life, esteem-building, a creative or philanthropic outlet, work-life balance, 24-hour global employment availability, a time-filling avenue, an alternative employment or payment currency avenue as well as learning, teaming, client-building- and leadership-opportunities. | The crowd is usually made up of people who like to work for themselves. Generally they are introverts. Some may have a physical disability. Some of them are moms who would prefer to work only when their children are at school. Our crowd self-select. (CEO & Founder, Firm B).

I’ve talked to a number of our crowd members and they can tell you that you cannot categorize them simply. An example is the woman who did most work for us last year… her entire reason for doing crowdsourcing all day every day is that so she doesn’t have to come out of her room and deal with her retired husband who is now at home every day. (CFO, Firm D).

Maybe I can just give my last word. I think this job is really nice for me. I am meeting new clients, I am meeting different people from around the world, and I was able to showcase my skill and I am beginning to and I think the best part is I have developed my skill more than what I can develop if I did not participate in this international competition. I mean if I did not know (Firm A) maybe my skill in logo design is just as I said around 5% but since I have been working for years for (Firm A) I think it feels to me like my ability my esteem has moved into around 90%, I think it’s something like that. (JP, Crowd, Firm A).

Well actually, the main drive is money definitely because that’s what we actually work for, but except that, they have different principles on how you build up your own character, that’s for your personal benefit and that’s how you develop yourself personally as well as we actually do different community services every month, you know, so that’s something that we’ll be giving to the community, some social services like whether donating your clothes, or feeding the old people, or you know, giving some funds to the people who are victims of natural calamities, so there are different things, but these main three are the things that have been motivating us to work in (Firm D). (A, Crowd, Firm C).

No, it’s not the money. Before I joined (Firm C), I used to spend most of the time in India, I didn’t used to do anything and this made me actually… with (Firm C) they give me work to do and also work in the community which I do every two weeks…I have now worked three times in community service in an orphanage. (A, Crowd, Firm C).

I just really enjoy it, it gives you such satisfactory to do, you know, especially if you come across a task that is difficult and you work your way through it, and then the next time you see it it’s a little bit easier, the next time it’s a little bit easier, and the next time it’s just like you could whip right through it, there’s a lot of satisfaction in that. They take a lot of our feedback very seriously, if you make a suggestion, they take it very seriously, and if you get a suggestion in, you know, all of a sudden there it is. There’s your suggestion in you know, existing, for everybody else to see and that’s a difficult and you work your way through it, and then the next time it’s just like you could whip right through it, there’s a lot of satisfaction in that,

It’s certainly not the money (laughs), meaning that look their basic tasks don’t pay enough for it to be about the money, you know I do some other things now for them, like in terms of like reviewing tasks before they’re posted and that sort of thing, and that pays somewhat better, so that’s good, but it’s more just – it’s something to keep my brain occupied with, and to try, like to try these sorts of things, and originally I was a law student and I am on there’s a forum or two that I am on, and part of it you know trying that is just to be part of that forum and the sort of a communication that goes on there, that we can complain about tasks together, or talk about the ones that are easier or harder or that sort of thing. (KK, Crowd, Firm D).

And certainly because money wasn’t in my motivation I wasn’t really concerned about it. In fact sometimes I do competitions in areas that I don’t know because my primary aim is to learn new things and learn how to predict better. So I mean because money isn’t my motivation, I’m not too concerned. I mean one thing about (Firm G) is that you have to put a lot of time in, so I think even if money was your motivation, the per hour rate would probably be very low. So certainly it doesn’t concern me at all, not getting any money. (AS, Crowd, Firm F).

‘They make it easy for us, because the company pays the money to (Firm F), they kind of buy so many hours, we work so many hours and then Firm G pays us. So they’re just like a middle-man who makes it easy for us, because people like me are not into – we gladly work for free you know. (PB, Crowd, Firm F).

I really found them quite interesting, they were about graphic design, they were about photography and science photography and I found that quite interesting because the videos were well produced and they were the type of shows that I would probably be watching anyway if I saw them on the Discovery Channel or on National Geographic, I would probably spend time looking at them anyway so I found that interesting that I was getting paid to actually watch and transcribe something that I would normally watch anyway (LC, Crowd, Firm E).

It was really great pleasure to work for (Firm A), and for me it was very pleasure work as a Freelancer I had much more free time for me and for my kids because I have family, and I could work on projects I like, not every project I have to work on, so that was a few reasons why I chose to work for (Firm A) and definitely money was better than I could earn here in Serbia (GD, Crowd, Firm A).

I think they (Firm G) just hold a kind of a special place with me, because I do see them as kind of – they were the vehicle to starting something pretty special for me you know.’ (GJ, Crowd, Firm G).
The company was born crowdsourcing. From its start the company was open to fostering and employing crowds. The entire business is based on crowdsourcing. The crowd itself can offer highly innovative solutions.

**Type of business**

- Crowdsourcing business owners are pioneers and trailblazers.
- Crowdsourcing business owners are innovators and disruptive to other businesses.
- Crowdsourcing businesses are highly innovative.
- Crowdsourcing is a new employment avenue involving participating and at times self-managing crowds.
- Crowdsourcing involves handling lots of people and jobs/projects efficiently.
- Crowdsourcing is a new type of business.
- Crowdsourcing businesses represent an activity system or business model innovatively incorporating demand & supply elements.
- Crowdsourcing is a global Internet-enabled business and always on.
- Crowdsourcing is always available at all times to people willing to participate.
- Crowdsourcing work is available to most people who are willing to participate. Crowds may experience difficulties and unfairness.
- Crowdsourcing businesses are faster, better, cheaper and reduce risk for clients.
- Crowdsourcing offers a competitive advantage over traditional businesses.
- Crowdsourcing creates value for the business and provides tangible value benefits for clients and crowd.

**How it works**

- Crowdsourcing is a new and unique type of business.
- Crowdsourcing businesses are disrupting industries.
- The crowd itself can offer highly innovative solutions.
- Crowdsourcing businesses represent an activity system or business model innovatively incorporating demand & supply elements.
- Crowdsourcing involves handling lots of people and jobs/projects efficiently.
- Crowdsourcing is a new type of business.
- Crowdsourcing businesses are highly innovative.
- Crowdsourcing is a global Internet-enabled business and always on.
- Crowdsourcing is always available at all times to people willing to participate.
- Crowdsourcing work is available to most people who are willing to participate. Crowds may experience difficulties and unfairness.

**Value creation design**

- Crowdsourcing businesses are faster, better, cheaper and reduce risk for clients.
- Crowdsourcing businesses are global and always available.
- Crowdsourcing businesses operate at huge size and scale.
- Crowdsourcing businesses can have a social benefit which also generates profit.
- Crowdsourcing businesses offer more choice to clients.
- Crowdsourcing businesses offer participatory client engagement.
- Crowdsourcing businesses enable unprecedented scale over short-term periods.
- The crowd may attain employment, income, career or personal development, a better life, esteem-building, a creative or philanthropic outlet, work-life balance, 24-hour global employment availability, a time-filling avenue, an alternative employment or payment currency avenue as well as learning, teaming, client-building and leadership opportunities.
Figure 2: Grounded model of crowdsourcing firm characteristics, function and value creation elements

Essential Characteristics
Crowdsourcing firm
- New, pioneering
- Rare, unique
- Innovative, disruptive

Functioning
- Continuous, global open call attracting people willing to participate
- Efficient processing of large numbers of people and projects

Value
Competitive Advantage
- Essential firm characteristics create competitive advantage

Multi-party value
- Functioning of crowdsourcing creates value for all 3 parties.

Client
- Engaged
- Underground, edgy
- Participatory
- Willing to self-serve
- Self-selected

Client benefit value
- Faster, better service offering
- Cheaper
- More choice
- Continuous availability
- Participatory
- Unprecedented human capital scaling

Crowd
- Large in number
- Global
- Participatory
- Anyone/anytime
- Organic
- Self-selected
- Relationship-oriented

Crowd benefit value
- Continuous, global employment avenue
- Income when successful
- Career/personal development
- Esteem-building
- Creative/Philanthropic/Time-filling outlet
- Alternative employment source
- Currency conversion/virtual payment benefit
- Learning, training, teaming, client-building, leadership opportunities
- Available in developing & developed countries

Multi-party value
- Relationship among parties helps attract, build & maintain crowds and attracts participatory clients

- All three parties including firm, client & crowd are essential to proper functioning
APPENDIX 1 – Executives Crowdsourcing Interview Questions

Interview Guide

Crowdsourcing Executives

Name of organisation: _______________________________________________________________

Name of respondent & position:________________________________________________________

Contact (email): ____________________________________________________________________

Address: ______________________________________________________________________

Interview guide for the qualitative study: unstructured interviews

1) Company background (Historical background, missions and goals, corporate culture, number of employees etc.).
   - When established? ________________________________
   - Main goal/type of company? ________________________________
   - Is it privately held company? ________________________________
   - A start-up? ________________________________
   - No. of employees?___________________________
   - No. of clients?____________________________
   - No. of crowdsourced resources if known?_________________________

2) How does using crowdsourcing create value for your organisation?

3) In what ways does the company create value for its own stakeholders (this can be for clients as well as crowdsourced staff)?

4) Why did you choose a crowdsourcing approach?
5) How did you go about choosing a crowdsourcing based business model out of other models you could have chosen?

6) What is the company’s operations strategy in dealing with the changing business environment?

7) Are there companies with whom you are in direct competition?

8) How does the company communicate with its main stakeholders – particularly those who form the crowd?

9) Has the company encountered difficulties with communication with its crowd in particular? Eg. Is there high turnover? Quality problems?

10) How does the company attract a crowd? Ie. Do you do anything special to engage/attract them?

11) How would you characterise your company’s crowd? Eg educated, creative, young, from developing economies, tech-savvy etc.

12) How does the company define its core capabilities? Eg. Innovative, Tech-savvy, flexible

13) What does this company consider to be the most important capability and how does the crowd fit in (if at all) to this important capability?

14) What would the company consider its most valuable resource(s)?

15) Do you think your crowd creates any sort of competitive advantage for your company over competitors?

16) Do see crowdsourcing as primarily a business model, a company capability, a company resource or a form of communication?

17) What is the future outlook for the company?
Crowd Crowdsourcing Interview Questions

The University of Melbourne
Qualitative Survey – Crowdsourcing

Before you commence please read and sign the final page Consent form
Email completed survey to k.wilson10@student.unimelb.edu.au

1. How did you come to do crowdsourcing work? How did you find out about it?
2. What motivates you to be part of a crowd labor workforce? Is it money or other things?
3. Are there times when you participate in crowd-working but do not get paid or maybe get paid a low rate and how do you feel about this?
4. What types of crowd-working tasks do you typically perform and how often?
5. Do you develop any special relationship with the people you work for and would you say you trusted them?
6. Do you consider crowd-work a long-term career option?
7. What keeps you coming back to participate in crowd-work?
8. Is crowd-working ever fun and/or does it make you feel special in any way?
9. Do you consider the crowd-work you do to be unfair in any way? Or any difficulties you have found?
10. Any other thoughts?
11. What is your gender? Male Female
12. What is your age? __________________________
13. What is your current country of residence? __________________________________
14. Optional: also please leave a contact email so I can contact you to clarify or check something or do a follow-up._______________________________________

Email completed forms to k.wilson10@student.unimelb.edu.au