THE PHENOMENON OF P3 COMMUNITY FOR IT SUPPORT: A CROWD-SUPPORT CASE STUDY

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Abstract
Organisations are increasingly considering the establishment of virtual peer-to-peer problem solving (P3) communities as a channel to provide support services to their customers. Such service support models promise organisations benefits over traditional models but there are uncertainties around their success due to the possible risks and negative outcomes. There is a scarcity of studies that empirically investigate the risks and negative outcomes of P3 adoption initiatives. This case study of an established P3 community, Telstra's CrowdSupport, provides some preliminary evidence of the extent of penetration of such initiatives as well as some of the pitfalls, e.g. Public airing of complaints. The discussion highlights the innovative integration of crowd, cloud, social and gaming elements and calls for further research into the P3 adoption-decision, community member motivation and engagement.

Keywords
Virtual peer-to-peer support, problem-solving, firm-hosted, service support channel.

1. Introduction
The emergence of new information and communication technologies (ICTs), particularly Web 2.0, enables users to collaborate and share information online. It has initiated radical transformations in social interactions, and has enabled the formation of online or virtual communities (Wiertz & de Ruyter, 2007). A virtual community is defined as “an aggregation of individuals or business partners who interact around a shared interest, where the interaction is at least partially supported and/or mediated by technology and guided by some protocols or norms” (C. E. Porter, 2004).

The focus of this paper is firm-hosted P3 communities that cater mainly to service consumers who are working to solve problems related to their shared consumption experiences. The term P3 for virtual peer-to-peer problem-solving communities originated in 2006 (Mathwick, 2006). The service consumers may include customers (external) and/or staff (internal) of the host organisation. P3 communities are primarily information-sharing and service support environments, enhanced by offering social support (Mathwick, Wiertz, & de Ruyter, 2008).

An increasing number of firms are attempting to exploit the Web 2.0 phenomenon by hosting online communities for commercial purposes, such as building relationships with their customers, seeking their feedback, strengthening the brand, and reducing customer service costs by enabling peer-to-peer problem solving (e.g. Moon and Sproull 2001). Organisations opt for firm-hosted virtual P3 communities because these communities offer a low-cost, credible, and effective means of delivering education and ongoing assistance services to
customers of complex, frequently evolving products and services (Dholakia, Blazevic, Wiertz, & Algesheimer, 2009). According to Mahr and Lievens (2012), more than 80 percent of organisations listed in the S&P 500 index have established virtual user communities to reap the benefits from users’ participation. And yet this phenomenon has not drawn much attention from Information Systems scholars. Although organisations are investing in P3 communities, there is very little research to date on this growing phenomenon. We aim to contribute to the academic literature by presenting a literature review of current work, and then by way of an illustrative case study, explore an example of an innovative and large-scale firm-hosted P3 channel and discuss the role of the community in providing IT service to customers.

Firm-hosted P3 communities enable customers to exchange information and knowledge to solve their problems about services offered by the host company. Support staff of the host firm are also involved in answering customer queries and moderating the discussions. The world’s largest telecom firms, AT&T and Verizon Communications, have adopted community forums. This paper provides a case study of a large-scale implementation of P3 for IT support. CrowdSupport® is hosted by Australia’s largest telecommunications and media company Telstra Corporation Limited. Telstra builds and operates telecommunications networks and markets voice, mobile, internet access, pay television and other entertainment products and services. In Australia, Telstra provides 17.2 million mobile services, 7.0 million fixed voice services and 3.4 million retail fixed broadband services (Telstra, 2016).

In alignment with the conference theme of “Democratization and Participation: People's Roles in the Digital World”, we examine Telstra’s CrowdSupport initiative as an example of a large-scale, service support channel that has engaged a significant number of people in sharing their knowledge and experience to support each other. The research question addressed is How do organisations use crowd sourcing as an innovative IT service support channel? We consider the structure, functions and features of the CrowdSupport site, the roles of the community members, their participation and the democratisation of knowledge previously held and shared solely by Telstra service support staff.

The structure of the paper is as follows. After the introduction stating the study aim and research question, prior research is summarised, and the research approach described. The data is then presented, followed by a discussion of key themes and findings. The conclusion includes contributions to practice and theory, research limitations and an agenda for future research.

2. Prior Research
Based on Michael Porter’s Firm Value Chain model, Durward, Blohm, and Leimeister (2016) considered where crowd support is located according to the value chain and briefly referred to Telstra CrowdSupport (p.282) as an example of Crowd Support. As shown in Figure 1, crowd-based business models have emerged that aim to exploit the power of the crowd in every link of the value chain.

A recent literature review of crowdsourcing by Hossain and Kauranen (2015) classified the applications of crowdsourcing into six categories: idea generation, open source software, public participation, citizen science, citizen journalism, and wikis. In this classification, virtual communities fit in the ‘public participation’ category. They note that “As is typical to a new discipline, early crowdsourcing literature includes conceptual articles mostly based on case illustrations and on the introduction of the phenomenon” (p.8).
Another classification of virtual communities can be according to their establishment as member-initiated or organisation-sponsored (also called firm-hosted). Member-initiated communities are those where the community was established by, and remains managed by, members. The relationship orientation in member-initiated virtual communities can be social or professional. Organisation-sponsored communities are established, moderated and monitored by organisations. Sponsoring organisations have key stakeholders and/or beneficiaries (e.g. customers, staff) who are an inherent part of the sponsoring organisation's mission and goals (C. E. Porter, 2004).

Fig 1: Applications of Crowd Work in the value creation of companies (Adapted from Durward et al., 2016, p. 283; M. E. Porter, 1985, p. 37).

Customers can benefit from participation in the firm-hosted virtual P3 communities. Functional benefits are derived from receiving service support and social benefits from networking and social interactions with other users (Dholakia et al., 2009). Cognitive and hedonic benefits are also possible (Verhagen, Swen, Feldberg, & Merikivi, 2015).

On the other hand, the community has its limitations as a service support channel. First, empirical research (e.g. Wiertz & de Ruyter, 2007) showed that customers who are highly committed to the host firm may expect the host firm and not fellow customers to provide them with service, resulting in an unwillingness to provide quality contributions to the community. This finding emphasises the need for firms to offer a portfolio of service delivery channels that allow customers to choose a service option that is best suited to their individual requirements. Second, individual traits of online interaction tendency affect customer behaviour and differ among the customers, thus a certain percentage of members may never become active contributing members. Third, the success of P3 establishment initiatives depends on various factors, e.g. providing an environment in the online P3 community that stimulates customer learning (Mathwick et al., 2008). Host firms’ actions are crucial in promoting the knowledge contribution within virtual communities. More importantly, host firms need to understand the consequences of different management practices. For instance, Liu, Zhang, Liu, and Li (2014) found that while interaction promotion and offline activities could lead to a higher level of knowledge contribution, providing incentives might undermine
the development of social capital and knowledge contribution, should the practice not be carefully considered.

In the past 15 years, online communities have been established by many types of members and organisations for a large variety of purposes. Examples include online health communities (Yan, Wang, Chen, & Zhang, 2016), online learning communities (Hwang, Singh, & Argote, 2015), and virtual communities of practice (Pan et al., 2015). For organisations, virtual communities hold great promise as management tools, because they can offer valuable insights into product innovation (Nambisan & Baron, 2009), enable deep and enduring connections with consumers (Bagozzi & Dholakia, 2002), and reduce customer service costs by enabling peer-to-peer problem solving (Wiertz & de Ruyter, 2007). Moreover, virtual communities reflect the increasingly popular consumer empowerment movement, which encourages companies to view their customers as proactive co-creators rather than passive consumers and facilitate cooperation with their customers for value creation (Leclercq, Hammedi, & Poncin, 2016; Tsai & Pai, 2014). Nowadays, the traditional boundaries between the roles of customer and provider are losing clarity, and new concepts such as prosumers and post-consumers (Carù & Cova, 2015) have emerged. Instead of being the traditional recipients of service, customers increasingly play active and even leading roles in service production and delivery processes enabled by the Internet. Customers go beyond the limited role of a buyer and user of a firm’s offering at the end of the value chain, and proactively engage in constructing the offering according to their personal needs and wants, and seek to also engage other stakeholders (such as other consumers, communities, firms or government organisations) in the service system to contribute their resources towards common aims. In other words, customers are acting as if they were the partial employees of the firm and thus, the service production and delivery process can be viewed as a co-production process between the customer and the firm (Alexander & Jaakkola, 2016; Xue & Harker, 2002).

While online communities have been established and used by different stakeholders (organisations, individuals, government) for a variety of for-profit or non-profit purposes, use of P3 communities as a service support channel is a recent and fast-growing phenomenon. For instance, Gartner estimated that by 2018, 30 percent of organisations will have implemented self-service and peer-to-peer service, up from 10 percent today (Axios Systems, 2016). The recent interest in outsourcing the provision of IT support to P3 communities has prompted IT service management (ITSM) tool providers (e.g. Axios, SDI, Matrix42) to develop and expand their ITSM software tools to include features to enable peer-to-peer support.

3. Research Approach
The purpose of this research is to explore, describe and explain the phenomenon of P3 service support, rather than to develop or test theories. The research strategy selected is a single case study to focus on understanding the dynamics present in a single setting (Eisenhardt, 1989, p. 534). We follow a pragmatic research approach to explore the research question. The case study method is well suited to this study as it allows rich data collection on P3 forums, community roles, interactions and knowledge sharing.

Case-study research is contingent on what one classifies as a case, and can be defined as a person, a group, a program, an organisation, a problem, or a body of evidence (Rule & John, 2011). The case has to be a case of something (Danermark, Ekstrom, & Jakobsen, 2001); it is a particular instance of something that is part of a larger group of instances. CrowdSupport as an online forum provides an instance of a firm-hosted P3 service channel for an empirical
enquiry to investigate a contemporary phenomenon (in this instance, community problem solving) within its real-life context, especially when the boundaries between phenomenon and context are not clearly defined (Yin, 2003).

The data collection commenced with the researchers registering as CrowdSupport members. The CrowdSupport websites were browsed and queried to collect lists of functions, features, guidelines, definitions, examples of member profiles, knowledge base items, questions, and solutions. In addition, we searched research journals, industry publications and Telstra Annual reports (2011-2016) for references to CrowdSupport and P3 communities. After the details of the CrowdSupport website were collected (December 2016 to January 2017), content analysis was applied to create lists and tables of salient characteristics.

4. Telstra CrowdSupport
Telstra provides a variety of service channels for customers including face-to-face with Telstra staff in retail outlets, as well as telephone and social media: Twitter, Facebook, YouTube.

4.1 CrowdSupport brief history and description
Telstra launched CrowdSupport in August 2011. In Telstra’s 2012 Annual Report CrowdSupport is described as “an online community forum aimed at extending the range of customer service options. Linking from Telstra.com, it is a place where consumer and business customers can help each other with information about Telstra’s products and services, share tips and experiences or discuss new and upcoming releases” (Telstra, 2012). Appendix A shows an example of a question posted by a customer and the solution offered by a community member. The growth of the forum after five years can be seen in the activity statistics as shown in Table 1.

<table>
<thead>
<tr>
<th>Table 1 CrowdSupport usage after five years (as at August 2016) (DanK, 2016b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unique visits per month</td>
</tr>
<tr>
<td>Registered members</td>
</tr>
<tr>
<td>Customer posts</td>
</tr>
<tr>
<td>Blogs published</td>
</tr>
<tr>
<td>Kudos given</td>
</tr>
</tbody>
</table>

We use the ‘Five Ps’ of Virtual Communities (C. E. Porter, 2004) to define the scope of the Telstra firm-hosted P3 service channel:
1) Purpose (Content of Interaction): The specific focus of discourse, or focal content of communication, among community members, can be any type of information or knowledge, about Telstra products, services or related topics. The overall goal is to facilitate customers finding solutions to commonly asked questions, getting updated information from Telstra and for members to share their own advice, hints and tips to others. The forum is structured around nine boards: Phone support, Tablets & devices, Home phones & bundles, Broadband & email, Telstra Smart Home, Sports & entertainment, Telstra 24/7 My account & Telstra.com, Apps & Games, and Community.

2) Place (Extent of Technology Mediation of Interaction): CrowdSupport enables solely online activity.

3) Platform (Design of Interaction): CrowdSupport is a Telstra-hosted web-based communication platform operating on Lithium software (Lithium Pty Ltd, n.d.) with links
to social media (Facebook and Twitter). It features both asynchronous interactions (e.g. forum posts) and synchronous or real-time interaction (e.g. chat).

4) Population (Pattern of Interaction): The community members are primarily employees and customers of the host organisation (Telstra). Non-customers are also able to register and participate as community members. All comments are reviewed by a Telstra moderator who ensures that user comments are relevant and appropriate, and may take steps to ensure content meets the site’s policies. The community guidelines aim to ensure the content is inclusive and inviting. There are five roles designated for Telstra staff: community manager, moderator, technical support, support team, and retired. Community member roles are allocated (not selected by members) based on activity:
- ‘visitor’ three roles: visitor, occasional visitor, regular
- ‘member’ four roles: new, member, established, senior
- ‘contributor’ six roles: new, contributor, frequent, respected, super, trusted
- other roles, for example, crowd baron, crowd leader, crowd legend, and occasional collector.

5) Profit Model (Return on Interaction): Tangible and intangible benefits to Telstra are in terms of labour savings of support staff and enhanced customer loyalty.

4.2 Forum features
In addition to the forum for comments and solutions, CrowdSupport includes a searchable Knowledge Base, a repository for Telstra Ideas, and Live Chat support. The knowledge base (KB) collects information collated from various topics across the CrowdSupport community that have been nominated by members as important and useful. Community Leaders check KB articles to ensure all information is relevant and factual. Members can nominate content that they think is valuable and will benefit the rest of the community.

Community members are encouraged to provide Telstra Ideas on how Telstra products and services could be improved. Ideas are given a status: e.g. not likely, maybe later, under review, clarification needed, completed.

Claimed to be an Australian business first, in October 2016 Telstra adopted an innovation to expand CrowdSupport so that qualified Telstra customers (‘Telstra Experts’) could be available for Live Chats with customers and prospects to provide information and insights from their personal experience about the features of different mobile handsets. The Director of Digital Operations explained that Telstra Experts on CrowdSupport Live have frequently offered the CrowdSupport community advice in written posts and the Chat feature will take it a step further by providing real-time, personalised, one on one advice as required. The Telstra Experts’ interactions are rated for helpfulness by customers and where eligible, experts are incentivised by rewards such as top of the range handsets, digital cameras, e-readers and Telstra Thanks experiences (DanK, 2016c; Hamilton, n.d.). In this radical departure from the previous off-line moderated customer response process, customers are working as pseudo-employees (at very little expense to Telstra). The direct, un-moderated interaction between Telstra Expert customers and the general public has inherent risks in terms of incorrect advice being given to existing and potential customers.

4.3 Recognition and rewards
Gamification principles are applied to give recognition to members and encourage participation. Three types of recognition schemes exist: Kudos, badges and community leaders.
4.3.1 Kudos

A Kudo is a reward, a “virtual high five, pat on the back or thumbs-up to the author” (DanK, 2016a). Kudos are given by members as credit to users whose posts are particularly useful, helpful, or beneficial. Kudos can also be given to Knowledge Base articles that help solve problems or are particularly helpful.

4.3.2 Badges

The badges feature was introduced in July 2015. Badges are earned for participating in the community and are awarded for a variety of actions/tasks such as completing member profile, providing accepted solutions, earning and granting Kudos. Currently, there are 47 badges available. The most awarded badge is Conversation Starter (earned by 60,945 members). Badges are used to motivate members to participate in the forum. Table 2 shows the number of badges awarded for each level of three activities: Kudos, posted solutions and replies.

<table>
<thead>
<tr>
<th>Kudos Badge</th>
<th>Number awarded</th>
<th>Solutions Badge</th>
<th>Number awarded</th>
<th>Replies Badge</th>
<th>Number awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earn a Kudo</td>
<td>6,840</td>
<td>Provide a solution</td>
<td>1,876</td>
<td>My first reply</td>
<td>52,935</td>
</tr>
<tr>
<td>Earn 25 Kudos</td>
<td>145</td>
<td>Provide 5 solutions</td>
<td>128</td>
<td>Post 25 replies</td>
<td>573</td>
</tr>
<tr>
<td>Earn 50 Kudos</td>
<td>91</td>
<td>Provide 10 solutions</td>
<td>87</td>
<td>Post 50 replies</td>
<td>248</td>
</tr>
<tr>
<td>Earn 100 Kudos</td>
<td>54</td>
<td>Provide 20 solutions</td>
<td>48</td>
<td>Post 100 replies</td>
<td>146</td>
</tr>
<tr>
<td>Earn 500 Kudos</td>
<td>14</td>
<td>Provide 50 solutions</td>
<td>28</td>
<td>Post 250 replies</td>
<td>83</td>
</tr>
<tr>
<td>Earn 1,000 Kudos</td>
<td>8</td>
<td>Provide 100 solutions</td>
<td>13</td>
<td>Post 500 replies</td>
<td>56</td>
</tr>
<tr>
<td>Earn 2,500 Kudos</td>
<td>1</td>
<td>Provide 250 solutions</td>
<td>4</td>
<td>Post 1,000 replies</td>
<td>41</td>
</tr>
<tr>
<td>Earn 5,000 Kudos</td>
<td>0</td>
<td>Provide 500 solutions</td>
<td>2</td>
<td>Post 2,500 replies</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Post 5,000 replies</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Post 10K replies</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 2 Number of badges awarded for Kudos, solutions and replies (as at 5/1/2017)

Figure 2 provides an example of the profile of one of the most active community contributors. This member ‘DrQ’ has earned 42 badges and is the only member to hold the badge for receiving 2,500 Kudos.

![Fig 2: Example Profile of CrowdSupport member (Telstra CrowdSupport, 2017)](image)

4.3.3 Community Leaders

The CrowdSupport Community Leader recognition scheme was announced in September 2016. Over the previous year, the CrowdSupport Community Managers had selected a group of 11 influential members to give the most active members a private area to collaborate and discuss how the team could better assist customers over CrowdSupport. Every few months a few additional members are invited by existing Leaders to join the elite group. The benefits for Leaders include:
• direct line to Community Managers to provide feedback and improvement suggestions;
• ability to discuss best practice with fellow influential peers of the community and give feedback on upcoming changes;
• granted priority to review new internet devices or mobile handsets. The device can be retained by leaders once the review period is completed;
• special privileges to publish and edit Community Wiki articles.

5. Discussion
Telstra CrowdSupport is an innovative combination of crowd, cloud, social and gaming elements to provide ICT service and support to customers. CrowdSupport is an example of democratisation of knowledge whereby lay people, viz. community members, are afforded the same status as technical experts. Telstra extends the use of firm-hosted forums with the appointment of knowledgeable customers as ‘Telstra experts’ to answer queries on Live Chat - a novel approach. Because it is ‘live’, chat communication is not moderated by Telstra staff, a relaxation of guarding the “boundary between expert and amateur” (Wyatt, Jess Bier, Harris, & van Heur, 2013, p. 153).

Complaints from customers’ about Telstra’s products and services are frequent on the forum. Even though the posts are moderated by Telstra staff, there are instances of harsh criticisms of Telstra’s performance, billing practices, data and mobile plans, and retail and technical staff. On one hand, customers may appreciate the opportunity to vent their frustration with Telstra but one negative outcome is that customer complaints are aired in public, for example the “mobile billing scam” (Dunn, 2016).

In terms of benefits, estimates of actual cost savings to Telstra are not available. The forum activity indicates a substantial volume of work answering queries and solving problems has taken “a load off the company’s resources” (Schofield, 2015). Work has been displaced from Telstra staff to the community volunteer members. New roles in Telstra were created to moderate and manage the forum. According to the Director of Digital Operations Telstra in an interview with the software provider (Lithium Pty Ltd, n.d.), Telstra has gained valuable insights into customer preferences: “What’s brilliant about our customer community is the richness and authenticity of the feedback and interactions that are provided by our customers. We learn so much about how we can make our products better in the community, through the quality feedback that our customers provide. We learn how to improve products. But also we learn about features that customers love from a product that we didn’t necessarily know that they did love. It’s a fantastic way of connecting with our customers”. He also claims “[it] enabled us to deliver fantastic service experiences in digital customer care channels”. Mr Hamilton also believes CrowdSupport provides “governance and [an] audit trail … a great management capability for our social media platforms”.

These comments and the activity of members confirm previous work that suggested functional, social (Dholakia et al., 2009), cognitive and hedonic (Verhagen et al., 2015) benefits to customers. Customers receive functional benefits from quick responses to their support requests and queries. Contributors experience feel-good emotions from helping others, as well as cognitive rewards from solving problems and contributing to solutions, the knowledge base and ideas. Some contributors are motivated by hedonic rewards receiving Kudos, badges. Extrinsic rewards are also offered e.g. gifts, products to review.
In contrast, some disadvantages are suggested by Blackler, Gomez, Popovic, and Thompson (2014) who considered how users respond to excess features in consumer products. Blacker et al. specifically referred to Telstra CrowdSupport, warning that “advice does not always concur, is not always clear, does not come with illustrations and is not always available at all if there is no one who happens to be able to answer the particular question. Also, the system can take several days to yield a response” (p.4).

6. Conclusion
The Telstra CrowdSupport case study answered the research question by demonstrating how crowdsourcing can be used as an innovative ICT service support channel. The case study explored the channel offered by Telstra, an organisation that claims to be the national leader in P3 service support in Australia. Over five years, there has been significant growth of the CrowdSupport P3 community in terms of number of members and number of postings. The forum’s features have evolved from a Q&A forum to include innovative chat conducted by customers to answer queries and solve problems.

6.1 Contribution to practice and theory
Although organisations are increasingly adopting P3 implementation, the benefits and risks resulting from such initiatives are not well understood and there are uncertainties when making the decision to adopt P3 community. This in-depth analysis of one of the pioneers in large-scale firm-hosted P3 communities could be useful to practitioners because it will enable managers to benchmark their P3 community against Telstra’s to identify areas in need of improvement. Firms considering adoption of P3 could select ideas of best practice and adapt them to suit their own objectives and community. To our knowledge, this is the first detailed account of a P3 firm-hosted community service channel. We applied Constance Porter’s ‘Five Ps’ and found it useful to describe the scope of the CrowdSupport forum. This project is characterised as applied research, and deals with an emergent and extremely important topic within the service industry and knowledge economy. Through our examination of the emergent phenomenon of firm hosted P3 service support communities we advance the theory of service support.

6.2 Limitations and future work
One of the limitations of this work is that we relied primarily on data collected from the CrowdSupport forum website and other secondary sources. Future work could engage with CrowdSupport community members, Telstra employees and customers to seek their feedback on the features, effectiveness, and reward mechanisms. Such a study would provide a great opportunity for establishing a mutually beneficial collaboration between academic researchers and industry practitioners.

Future research could identify the specific features that influence community engagement in firm-hosted P3 communities. To explore the motivation of contributors, a cross-case analysis could compare the features and engagement of Telstra’s P3 platform with those of other telecom providers such as Optus (Yes Crowd) and Vodafone (Vodafone community).

Accurate data on member engagement could be requested from Telstra to test the phenomenon of participation inequality, popularly known as the 90/9/1% rule (Hill, Hollan, Wroblewski, & McCandless, 1992). They reported that it was observed that in most online communities, 90% of users read or observe but do not contribute; 9% of users contribute from time to time; and 1% of users participate actively and account for most contributions.
An organisation’s decision to adopt a virtual P3 community as a service support channel can be compared to an outsourcing initiative because the organisation relies (partly or completely) on an external entity for the provision of service. However, in the case of P3 communities, no contractual agreement exists between the parties, and the selection of service providers (i.e. customers who participate in solving their peer’s problems) is not controlled by the host organisation. Various theories that have been applied to outsourcing decisions viz. Agency Theory, Transaction Cost Theory, Resource-Based Theory, Social Capital Theory, Knowledge-based Transaction Cost Theory, Strategic management theories, etc. (Dibbern, Goles, Hirschheim, & Jayatilaka, 2004; Lacity, Khan, Yan, & Willcocks, 2010), may not be applicable to P3 adoption due to the contractual differences. The underlying assumption of those theories needs to be re-examined for investigation of the P3 phenomena. Future research could consider questions such as why is there increasing adoption of firm-hosted P3 (e.g. do they mimic each other)? and what are the determinant factors in P3 adoption? Also, the outcomes of adoption of P3 communities for service support for firms, customers and community demands further empirical investigation.

The knowledge generated in this paper can be applied in practice and promises organisational and national benefits. The phenomenon we investigated is emergent and academic research in this area is scarce. In this paper, we described the P3 online community as an emerging service support channel, and showed its position within the broader context of crowd-based business models. We used an illustrative case study to show how the crowdsourcing is being used as an innovative IT service support channel in an Australian ICT company. Based on the available literature on crowdsourcing and outsourcing, we identified future research directions within the crowd support discipline.

References


Appendix A Telstra CrowdSupport sample question and solution (Posted 7/1/2017)

![Image of a message thread where a user asks about locating a broadband usage meter for their cable service, and another user responds with a solution.]

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