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Prospects of collaborative consumption in the context of digital government

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ABSTRACT

Rapid advances in Information and Communication Technology (ICT) combined with rising economic constraints are causing a change in behavior towards new forms of consumption called collaborative consumption (the sharing economy). Research on this phenomenon from the government perspective has however not received much attention. This paper therefore performed a systematic literature review to make sense of how the notion of collaborative consumption (CC) has been investigated in the digital government context, further reflecting on the implications for developing countries. The findings suggest that there is a significant research opportunity on CC in digital government settings to developing countries such as in Latin America, Africa or Australia. Specifically those developing countries are unreflectively sharing based on what developed countries consider needs to be shared. The study contributes theoretically a research agenda on CC in a digital government setting and practically on how to share public services with limited resources.

Keywords: Collaborative Consumption, E-Government, Sharing, Sharing Services, Sharing economy, Peer-to-Peer, Digital Government.

1. Introduction

Information and Communication Technologies (ICTs) have enabled and enhanced government in terms of both management and services (Scholl, 2002). Given that online delivery systems are perpetually available, users have the opportunity to find and access information at their convenience (Hamari & Ukkonen, 2015). Moreover, ICTs are also capable of improving socioeconomic growth by fostering the establishment of online interacting communities. This increased interconnection through network platforms helps individuals to share and access

resources and services online. According to Belk (2014b), this phenomenon is called “collaborative consumption” (CC) and it entails that people work together to obtain and distribute resources and services with or without a fee. Van de Glind (2013) emphasises that the substantial alteration of hyper-consumption with CC is of practical significance to citizens, businesses and industry. In this paper, the focus is on research into CC in a digital government setting and its implications for developing countries.

Collaborative consumption is defined as the peer-to-peer-based activity of attaining, offering or sharing access to resources and services through community-based online services (Albinsson & Perera, 2012). CC has been shown to enable a joint act of people to coordinate resources and services for their effective utilisation (Leismann, Schmitt, Rohn & Baedeker, 2013). CC is often interchangeably used with the notion of the sharing economy. However, according to Puschmann and Alt (2016), the sharing economy was first mentioned in 2008 and denotes the CC as only comprising the activities of sharing, exchanging and renting resources without owning the goods.

The sharing economy in its broader sense is an umbrella concept that encompasses several ICT developments; CC, among others, is to do with the sharing of consumption goods and services through online platforms (Kaplan & Haenlein, 2010; Botsman & Rogers, 2010). It is also mentioned that both the sharing economy and CC are considered as subsets of access-based consumption (Eckhardt, 2018). The phenomena are regarded as similar in that they represent a shift in consumer behaviour towards alternative forms of consumption. Viewed in this light, sharing economy and collaborative consumption can be used interchangeably. For the purposes of this study, the term collaborative consumption (CC) has been adopted.

It is important to note that there are several motivations for the development of CC in digital government. Paagman, Tate, Furtmueller and De Bloom (2015), for example, find in their study that cost reduction is the most frequently expressed reason why public organisations engage with CC in digital government. The study also indicates that improved service quality, work efficiency, access to external resources and a standardised system of service delivery are other motivations for public institutions to engage with CC. While research has been done into the

motivations of existing participants in sharing-based practices and business models, little research has been done into the wider public perceptions of CC (Cherry & Pidgeon, 2018).

The purpose of this study is to organise or structure the available knowledge of the prospects of CC in digital government, with a particular focus on developing countries. The following major tasks have been performed for the purposes of this study:

- Finding published research articles on digital government
- Selecting and categorising articles for review in support of the research method
- Recapitulating the objectives and results of the articles
- Providing a framework for addressing gaps in current digital government practices

1.1. Brief conceptual background to digital government

E-government and digital government are terms used to refer to the application of ICTs by governments and their agents to improve operations, service delivery, citizen involvement, public participation and the process of governance (Curtin, 2008). It is noted that successful digital government aims to enhance service-level relationships between a government and its stakeholders, such as citizens, government agencies and businesses (Schuppan, 2009). Though there is a possibility to use the terminologies e-government and digital government synonymously, we adopted digital government for this study.

According to Yildiz (2017), there are four categories of digital government practices, namely government-to-government (G2G), government-to-business (G2B), government-to-citizen (G2C) and government-to-employee (G2E) practices. G2C is intended to provide the public with services such as information on education and healthcare. G2B is aimed at providing information on policies and regulations, such as e-procurement to assist government suppliers in ensuring the swift exchange of goods and services. G2E is to do with the provision of services in government or public organisations, such as human resource training. G2G is intended for the sharing of information and services between and among government agencies or governments of different countries. The key to the success of these four digital government forms is the efficient application of high-quality ICTs. Overall, when a government implements a sharing framework,

all information systems have to act as one coherent system so that the public can get G2C, G2G, G2B and G2E services at one (virtual) counter (Becker, Niehaves & Krause, 2009).

Prospects of CC

According to Ganapati and Reddick (2018), CC is a sharing network that enables various participants, such as peers, producers and consumers, to communicate with one another for mutual benefits. Ganapati and Reddick (2018) identify the major benefits that characterise CC:

- It enables organisations to save costs and resources.
- It allows public institutions to provide better services to citizens.
- It provides citizens with an opportunity to promote new goods and services for customers.
- It helps citizens to maintain the environment by sharing already available resources instead of buying and producing new resources.
- It creates an opportunity for institutions to establish partnerships with other organisations and companies.
- Moreover, it allows the testing of pilot schemes so that organisations will have the opportunity to scale up the network for better service delivery and citizen satisfaction.
- It also builds a powerful interconnected community, so more citizens could become involved in the sharing network across organisations.

The next section of the study is organised as follows: Section 2 presents the methodology. Section 3 includes a discussion of the results and implications for future research. Section 4 provides conclusions and Appendix I is included at the end.

2. Methodology: search guidelines, coding, and classification

A systematic literature review (SLR) identifies a specific issue and investigates published literature on the issue, summarises critical points of current knowledge and recommends next steps in addressing the issue (Govindan & Jepsen, 2016). It is also regarded as a clear and replicable method for identifying, categorising and analysing studies conducted by researchers (Okoli & Schabram, 2010). A systematic review of research literature involves a number of steps, as identified by Juniorand Filho (2010):

1. Building up a structured classification coding system to clarify and provide a structure to the existing knowledge on CC in digital government
2. Finding the main objective(s) and finding(s) of the research articles according to the coding system
3. Analysing articles to find opportunities, gaps and challenges for future research about CC in digital government

The aforementioned steps employed in the present study have also been used by Fahimnia, Sarkis and Davarzani (2015), Mariano, Sobreiro and Rebelatto (2015), Jabbour (2013), Govindan, Soleimani and Kannan (2015) and Costa and Filho (2016). The study was carried out from January to March 2018. The study used Web of Science, Scopus and Google Scholar databases, which are considered to be significant multidisciplinary academic databases (Wang & Waltman, 2016). Numerous recent research articles published in the last ten years were included in the review of the literature (Bartol, Budimir, Dekleva-Smrekar, Pusnik & Juznic, 2014; Mongeon & Paul-Hus, 2016). The search process used titles and keywords to find the required articles, including *sharing economy; e-government; electronic-government; sharing; collaboration; information sharing; collaborative consumption; and digital government*. In the initial search, a total of 46 articles that were published between 2007 and 2018 were retrieved. The final selection of articles was done based on the sharing economy or CC, as this was the main focus of the study. Important article information, including the author's information, the title of the article, year of publication, abstract and full article document, was retrieved and summarised (see Appendix I). After reviewing the articles, an analysis was done to assure that all the articles provided a discussion on digital government with a specific focus on CC or the sharing economy.

Table 1. Classification and codes used in the study

Category	Code				
Context	Developed countries	1A	Category		Code
	Developing countries	1B			
	Not Applicable	1C			

<i>Focus</i> CC values	Saving costs and resources	2A	Method	Qualitative	3A
				Quantitative	3B
	Servicing citizen better	2B		Design science	3C
	Branding	2C		Mixed use	3D
	maintaining the environment	2D		Theoretical	3E
	creating partnership	2E		Empirical	3F
	Testing pilot Schemes	2F		Case studies/interviews	3G
	Building a strong community	2G		Survey	3H
Not Applicable	2H				
Continent	Africa	4A	Digital government categories	G2G	5A
	America	4B		G2B	5B
	Asia	4C		G2C	5C
	Australia	4D		G2E	5D
	Europe	4E		others	5E

The search using the aforementioned databases resulted in 46 publications. These publications were assessed and analysed to understand them better in the light of CC and digital government practices. 46 articles, including conference papers and government annual reports, were excluded; the remaining 30 articles were considered as important in the review of the literature in the study. Classification and coding of the 30 articles were performed as described below.

- The articles selected were categorised according to numbers and letter codes, as shown in Table 1 above.
- The coding scheme (i.e. a 1A to 1C scale) was employed in the study to designate the studies under analysis in a national context. The same procedure was used in the works of Jabbour (2013) and Mariano et al (2015).
- Articles that focus on aspects of values (CC values) were numbered 2A to 2H, which is similar to the same coding values used in the work of Junior and Filho (2012).

- The research method (3) reported in the articles was coded on a scale of 3A to 3F, based on the work of Junior and Filho (2012).
- The continent where the research was conducted (4) was coded 4A to 4E. The same coding was used in the work of Fahimnia et al (2015).
- The digital government categories (5) G2G, G2B, G2C, G2E and others were coded 5A to 5E. The same coding values were used in the work of Junior and Filho (2012).

As shown in Table 1, the classification and coding of studies provide an overview of the distribution of the research articles on CC and digital government practices. These are similar to the classification and coding of studies done by Fahimnia et al (2015).

3. Results and discussion of the literature analysis

30 articles were selected, classified and categorised as shown in Table 2. A summary of the purposes and findings of the reviewed articles is presented in Appendix I.

Table 2: Codification of Articles Reviewed

No	Authors	Context	CC values	Method	Continents	Digital government category
1	Sun, Ku & Shih (2015)	1A,1B	2[A,B,C,F]	3A,3G	4C,4E	5[A,B,C]
2	Anthopoulos,Siozos & Tsoukalas (2007)	1A	2[A, B, F]	3B, 3H	4E	5[A,C,D]
3	Juell-Skielse, Lönn& Päivärinta (2017)	1A	2[A, B]	3[B,G,H]	4E	5A
4	Abu-Shanab (2017)	1B	2H	3[B,F,H]	4C	5E
5	Lamberton (2016)	1A	2A,2G	3A,3G	4E	5A,5C
6	Bardhi & Eckhardt (2012)	1A	2[A,C,G]	3[B,F,G]	4E	5E
7	Fan, Zhang & Yen (2014)	1A	2[A, B, D, E]	3[B,F,H]	4C	5A,5B

8	Gil-Garcia& Sayogo (2016)	1A	2A	3[A,G,H]	4B	5A,5B
9	Yang, Pardo & Wu (2014)	1B	2[A, B, D]	3A,3G	4C	5A,5B
10	Sharma & Pokharel (2016)	1B	2[A, D, G]	3[B,G,H]	4C	5E
11	Leismann, et al (2013)	1B	2[A,B,C,D,G]	3[A,G,H]	4E	5E
12	Karlsson, Frostenson, Prekert,Kolkowska & Helin (2017)	1A	2A,2B	3F,3G	4E	5A,5B
13	Kim, Pan & Pan (2007)	1B	2[A, B, F]	3A,3G	4E	5A,5B
14	Ganapati & Reddick (2018)	1A	2[A, B, D, E]	3E	4B	5A,5B
15	Belk (2014a)	1B	2[A,C,G]	3[A,F,G]	4C	5[A,B,C]
16	Alzahrani, Al-Karaghoul & Weerakkody (2017)	1A	2H	3E	4E	5C
17	Parente, Geleilate& Rong (2017)	1A,1B	2[A,B,C, E]	3E	4B,4C	5A,5B
18	Hamari & Ukkonen (2015)	1A	2[A, B, D]	3[B,G,H]	4E	5B,5C
19	Lv, Li, Wang, Zhang, Hu & Feng (2018)	1A	2[A, B, D]	3E,3F	4C	5[A,B,C]
20	Belk (2014b)	1A,1B	2[A, B]	3[B,G,H]	4C	5A
21	Chen (2017)	1B	2[A, B]	3A,3G	4C	5A,5B
22	Luna-Reyes, Gil-Garcia & Betiny (2007)	1B	2[A, B, E]	3G,3H	4B	5A,5B
23	Drake & Koch (2004)	1A	2[A,B]	3A, 3G	4B	5A,5B,5C

24	Yang & Maxwell (2011)	1A	2B,2G	3E	4B	5A,5B
25	Ertz (2016)	1A	2[A,C,D,G]	3D,3G	4E	5A,5B,5C
26	Ourahmoune (2015)	1A	2[A,B,C,E,G]	3A,3G	4E	C2C&C2B
27	Benoit,Baker, Bolton, Gruber & Kandampully (2017)	1B	2[A,B,C,D]	3A,3G	4B	5A,5B
28	Möhlmann (2015)	1A	2[A,B,C,D, G]	3E	4B	5A,5B
29	Barnes & Mattsson (2016)	1A	2[A,B, C,D, G]	3A,3G	4B	5A
30	Rivera, Gordo, Cassidy & Apesteguía (2017)	1A	2[A,B,D,E,G]	3B,3G	4E	5E

3.1. National Context

In this study, the authors' country affiliation was not considered to be a significant driver for the choice of the national context of the studies, as authors from developed countries also analysed studies conducted in developing countries.

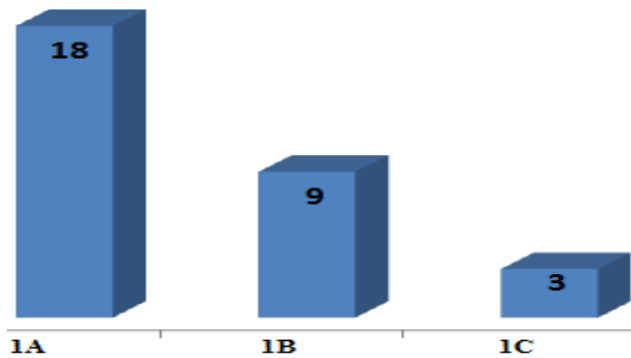


Figure1. Distribution of category1: Developed countries– 1A; developing countries – 1B; combination of developing and developed countries – 1C

The national context (category 1) is represented in Figure 1. It shows that 60% of the research articles reviewed focus on developed countries; 30% of the published articles represent an inquiry into developing countries, and three articles focus on combining developed and

developing countries for comparative analyses. While there is no study related to CC in developing regions like Africa and Australia, resource limitations in these regions point to a greater need for sharing the available resources. The result also suggests that developing countries are sharing based on what developed countries consider needs to be shared. There is therefore an opportunity to investigate resources that can be shared from a resource-constrained perspective. Very little research has been done into CC in developing regions and Australia.

3.2. Focus on CC values

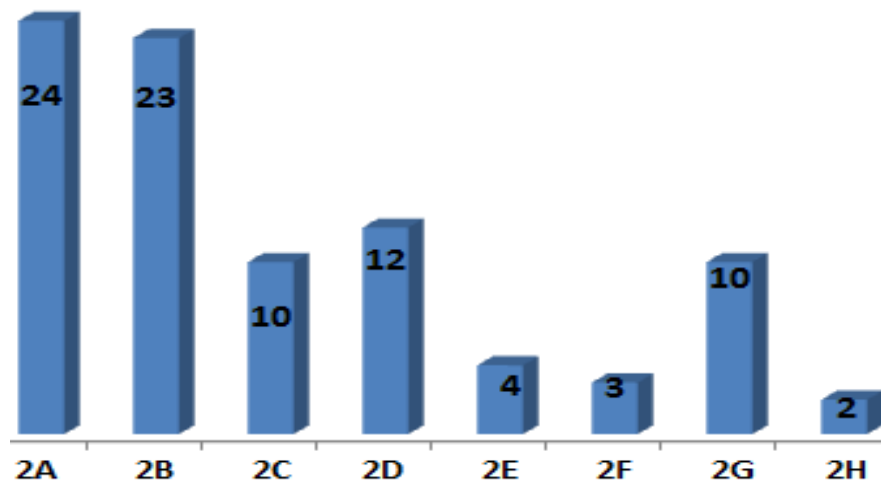


Figure 2. Distribution of category 2 (CC values): Saving costs and resources – 2A; servicing citizens better – 2B; branding – 2C; maintaining the environment – 2D; creating partnership – 2E; testing pilot schemes – 2F; building a strong community – 2G; not applicable – 2H

Studies of CC values include 24 articles that focus on saving costs and resources; 23 articles on servicing citizens better; ten articles on branding; 12 articles on helping the environment; four articles on forming alliances; three articles on testing pilot schemes; ten articles on creating a stronger community; and two articles on trust on digital government. In order to enjoy the maximum benefits of using ICT in government processes, organisations must create an interconnection to share their resources. In this regard, more than 70% of the research articles focus on saving costs and resources and servicing citizens better. In contrast, fewer research articles (less than 30%) focus on CC values such as branding, maintaining the environment, creating partnerships and building a stronger community. This helps to suggest as there is a

research opportunity for developing countries to similarly focus on digital government with the former service and cost/resource saving CC values.

3.3. Research methods

The methodological approach of each article was assessed and analysed in accordance with the classification scheme devised by Jabbour (2013), as follows:

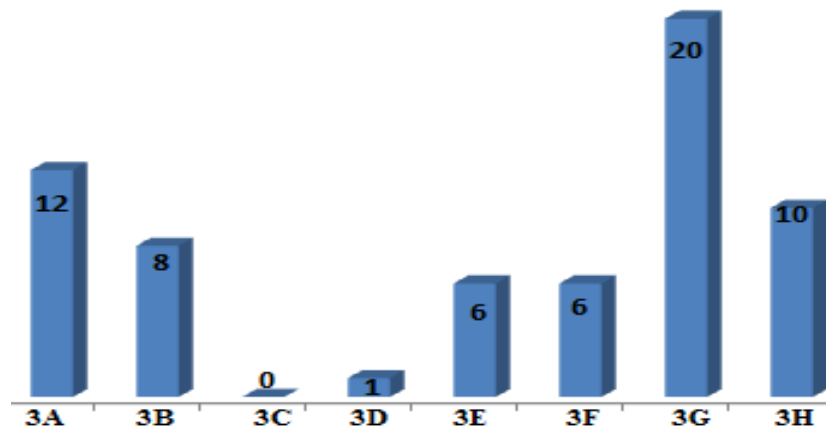


Figure 3. Distribution of research methods: Qualitative method – 3A; quantitative method – 3B; design science – 3C; mixed methods – 3D; theoretical research – 3E; empirical research – 3F; case studies – 3G; surveys – 3H

As can be seen in Figure 3, nearly all the studies were conducted using qualitative or quantitative methods. Only one study followed a mixed-method approach (using both quantitative and qualitative methods), and no study was conducted using the design science approach.

Concerning methodological choice (category 3), 37% of the studies were quantitative studies that used surveys and 31% of the studies were qualitative studies that used case studies or interviews. 20% of the articles were theoretical or conceptual studies and 4% followed a mixed-methods approach (using both qualitative and quantitative methods). No studies were conducted using design science and 20% of the studies were empirical. This reveals that more conceptual studies are required, which affirms that there is an opportunity to conduct more research using mixed methodologies (quantitative and qualitative methods, surveys, case investigations and design science).

3.4. Geographical origin

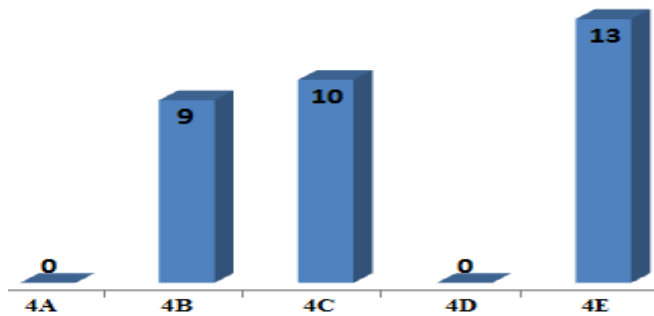


Figure 4. Distribution of origin: Africa – 4A; America – 4B; Asia – 4C; Australia – 4D; Europe – 4E

The last classification explored in this work shows the origin of the revised studies by analysing the institutional affiliation of the authors (see Figure 4). Fahimnia et al (2015) use a similar categorisation scheme. It was realised that most of the works of 43% originated from Europe. Asia accounts for 33% of the studies and 30% of the studies came from the United States of America. Two studies originated from both Asia and America or Europe. No studies originated from Africa, Latin America or Australia. In resource-constrained environments such as are common in Latin America and Africa, CC would be expected to create more value. These results demonstrate that there is a research gap in understanding CC from an African perspective.

3.5. Digital government category



Figure 5. Distribution of digital government category: G2G – 5A; G2B – 5B; G2C – 5C; G2E – 5D; others – 5E

Most studies were conducted into the G2G and G2B categories (see Figure5):73% of the articles focused on G2G; 60% on G2B; 30% on G2C; 3% on G2E; and five articles on other categories. Apart from its facilitating capability in the operations of governmental organisations, G2G information sharing is a challenge for ICT professionals worldwide (Fan et al., 2014).

Nevertheless, 70% of the research articles in this study examine this challenge in developed countries (the West). As noted by Puschmann and Alt (2016), sharing resources in CC is commonly known in the B2B category (e.g. the sharing of agricultural equipment); in the B2C category (e.g. public library services); and in C2C transaction exchanges. The finding suggests that there is a gap for CC platforms in the G2C digital government category in public agencies.

4. Conclusions

This paper aimed to present a systematic literature review of the prospects of CC in digital government, with a focus on its implications for developing countries. The selected articles were analysed and a summary table of descriptions was presented. The findings show that more research is needed into digital government practices from the perspective of CC, with a methodological choice of empirical and theoretical works and mixed methodologies (quantitative and qualitative methods) and design sciences.

The finding that developing countries are unreflectively sharing based on what developed countries consider needs to be shared is not surprising and indicates the unreflective adoption of digital government without consideration of context. There is therefore an opportunity to investigate resources that can be shared from the resource-constrained perspective of developing countries.

There is an opportunity for developing countries to consider research into CC in digital government to maximise services, create new markets and utilise idle public resources more efficiently. CC may also assist in reducing the environmental impacts of over consumption and create an improved interaction among businesses, government and citizens to build a stronger community. Future research should employ more mixed-method approaches (quantitative and qualitative methods) and follow a design sciences approach to create more CC platforms in digital government.

There is a shortage of research into CC in digital-government practices in the G2C category. The G2C service delivery category enables the citizen to share government resources effectively in an electronic manner. The study is limited to use three databases only for search as they are multi disciplinary.

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Appendix I-

Articles used in literature Review and their brief description

Author and country of study	Brief summary
Sun, Ku & Shi (2015) Korea, Barbuda & Ecuador	This empirical study proposes framework for E-Government 2.0 that links the processes of back and front offices online in the G2Gcategory. It focuses on the CC values of saving costs and resources, improved service delivery, branding and testing the pilot scheme.
Anthopoulos, et al (2007) Greece	The study reveals that citizen-oriented collaborative tools could enable stakeholders to participate actively in the e-government system for improved public services. It focuses on the CC values of saving costs and resources, improved service delivery and testing the pilot scheme in the G2G category.
Juell-Skielse, et al (2017) Sweden	The study shows that the digital archive has stayed stable and expected benefits have changed significantly. It focuses on the G2Gcategory and the CC values of saving costs and resources, and improving service delivery to citizens.
Abu-Shanab (2017)	The findings of this study reveal that place, time and information necessity are necessary to improve public awareness and trust in e-government. It also reveals that e-government practices are influenced by security as perceived

Jordan	by users. It focuses on the G2B category.
Lamberton (2016) USA	The study proposes a framework that allows for differentiating modern CC systems. It focuses on the G2G category and the CC values of saving costs and resources, and creating a powerful community.
Bardhi & Eckhardt (2012) USA	The study shows the nature of sharing from the perspective of the C2B and C2C categories in the private sector. It reveals that one consumption type is different from the other. It focuses on the CC values of improving service delivery and creating a powerful community.
Fan, et al (2014) China	The study reveals that information sharing in a G2G modality is influenced by top-level guidance. It focuses on CC values such as saving costs and resources, improving service delivery, maintaining the environment and building partnerships.
Gil-Garcia & Sayogo (2016) USA	The study reveals some important factors of inter-organisational collaboration and information sharing. It focuses on saving costs and resources in the G2G category.
Yang, et al (2014) Taiwan	This paper shows centralised and decentralised types of information sharing. It focuses on CC values such as saving costs and resources, improving service delivery, maintaining the environment and building partnerships in the G2B category.
Piscicelli, Cooper & Fisher (2015) UK	The study reveals the role of the product-service system in enhancing consumers' consent and adoption. It focuses on the CC values of improving service delivery, maintaining the environment and creating a powerful community in the G2B category.
Leismann, et al (2013)	The study shows that the sharing economy is more important and has more general resource-saving potential than privately owned services. It focuses on the CC values of saving costs and resources, improving service delivery, maintaining the environment, creating a powerful community and promoting

Germany	new services in the G2Gcategory.
Karlsson et al (2017) Sweden	The study, inspired by a model proposed by Yang and Maxwell (2011), reports important factors that play a role in information sharing. It focuses on saving costs and resources in the G2G category.
Kim, et al (2007) South Korea	The study reports the integration of technology, business processes and citizens' trust with organisational learning and the growth of e-government initiatives. It focuses on the CC values of saving costs and resources, and testing pilot schemes in the G2G category.
Ganapati & Reddick (2018) USA	The study shows the prospects and challenges of the sharing economy in noticeable sectors for the efficient delivery of public services. It focuses on CC values such as saving costs and resources, improving service delivery, maintaining the environment, and building partnerships in the G2B and G2G categories.
Belk (2014a) Canada	The study reports that pseudo-sharing is different from sharing based on the profit motive and the inability to develop a community feeling. It focuses on the CC values of saving costs and resources, branding and building a powerful community in the B2B and B2C categories.
Alzahranietal (2017) UK	The study identifies factors that influencing citizens' trust from the perspective of e-government adoption. It reveals that theDelone and McLean information system is successful framework. It focuses on the G2G category.
Parente, Geleilate& Rong (2017) Europe	The study shows that sharing-economy firms and their collaboration with the national ecosystem result in an improved delivery of information to managers and policy-makers. It focuses on the CC values of saving costs and resources, improving service delivery, branding and building partnerships in the C2C category in the private sector.
Hamari & Ukkonen (2015)	The study shows how important it is to reduce societal problems, including unbalanced consumption, pollution and poverty, by reducing revenue costs

Finland	in the community through CC. It focuses on saving costs and resources, improving service delivery and maintaining the environment in the G2G category.
Lv, et al (2018) China	The study proposes platform that will enable smart cities to improve their resource utilisation in order to increase productivity and sustain the environment. It focuses on the CC values of saving costs and resources, improving service delivery and maintaining the environment in the G2G category.
Belk (2014b) Canada	The study reports that a sharing economy and collaborative consumption are alternative ways of accessing services. It focuses on the CC values of saving costs and resources, and improving service delivery in the G2C category.
Yang,Zheng& Pardo (2012) Taiwan	The study reveals that confidence and social benefits have positive effects on commitment in the CC services. It focuses on the CC values of saving costs and resources, and improving services in the G2B category.
Luna-Reyes,et al (2007) Mexico	The study reports that an organisational hierarchy could enhance or deter collaboration between public agencies. It focuses on the CC values of saving costs and resources, and improving service delivery, branding and building partnerships in the G2G category.
Drake & Koch (2004) USA	The study identifies four types of systems, namely societal, technological, and institutional and constituency systems, which impacted information sharing among public agencies. It focuses on improving G2G services.
Chen (2017) China	The study identifies factors that affect information sharing among organisations. It proposes a model to facilitate information sharing among organisations. It focuses on the CC values of improving services and building a powerful community in the G2G category.
Ertz (2016)	The study indicates that consumers' manner and means of communication are key determinants of CC. It focuses on the CC values of saving costs and

Canada	resources, maintaining the environment, branding and building a powerful community in the C2C category.
Ourahmoune (2015) France	The study identifies key segments for consumers and producers that could reform sustainable ideals in the context of interest. It focuses on the CC values of saving costs and resources, maintaining the environment, branding and building a powerful community in the C2C and B2C categories.
Benoit et al (2017) USA	The study proposes a framework for the role that actors play in the CC triangle. It focuses on the CC values of saving costs and resources, improving services, branding and maintaining the environment in the G2B category.
Möhlmann (2015) Germany	The study identifies factors that determine users' satisfaction and their likelihood of using the sharing economy. It focused on CC values such as saving costs and resources, branding, maintaining the environment and building a powerful community in the B2C and C2C categories.
Barnes & Mattsson (2016) Europe	The study identifies key drivers, inhibitors and future developments of CC. It focuses on the CC values of saving costs and resources, improving service delivery, branding, maintaining the environment and building a powerful community in the B2C category.
Rivera, et al (2017) Belgium, Italy, Portugal and Spain	The study develops more complex understanding of CC by studying platform architecture, interface, design and informational content to investigate the influence of technological affordances of digital platforms on social interaction. It focuses on the CC values of saving costs and resources, maintaining the environment, branding and building a powerful community in the C2C and B2C categories.