SHARING ECONOMY IN PEOPLE, PROCESS AND TECHNOLOGY PERSPECTIVE : A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

Currently a new economic development era has occurred, starting from the concept of sharing, sharing economy becomes a phenomenon in this era. This concept also, developed an early concept of new economy that initiates change through sharing even without ownership. An important factor in sharing economy is cooperation between the service providers, service users and companies whom provide applications include with method of profit and earning allocation which able to measure company feasibility and effectiveness. Sharing economy considered with many advantages, not only able to share but also provide benefits for company and consumer. Using people, process and technology perspective, this research describes sharing economy model more systematically. The purpose of this study aims to see and describe the model of sharing economy with people, process and technology perspective by gain deeper understanding of the concept. Furthermore, this research expected able to contribute and observe related to the industry, whom adopting the concept of sharing economy. This research method used Systematic Literature Review by founded study using the specific keyword

from previous research. From 30 selected papers, this research's result there are 5 variables of sharing economy model adopted from people, process, technology: (1)Community; (2)Networking; (3)Access Ownership, (4)Platforms, (5)Payment Systems

Keyword: sharing economy, collaborative, people-process-technology, systematic literature review, framework

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1. INTRODUCTION

"Sharing" means own or use something at the same time; share with two or more unknown persons nor strangers even have relationships which the concept was changed who allows others to use without possession but still possess with same ownership rights; engage and take responsibility for use and the ownership [1]. From that understanding, the previous research said sharing is a concept that has been started since the beginning where this concept became a phenomenon for digital economy in the Internet era [2].

Jakarta, the capital city of Indonesia, is an eyewitness to the rapid development of this new economy concept, whom without ownership, but still enjoys the benefits and has the right to consume [3]. One of popular sharing economy research came from transportation development, which started from UBER in 2009 able to arousing passion of new economic concept by having authorized to consume without changing the ownership [4]. This concept consider flexibility for the customer nor service users by using apps platform which being e-marketplace for the driver as service provider and also customer as service user [5].

From those explanation, eventually developed an early concept of a new economy and also initiated a simple concept through the sharing of ownership or better known as collaborative (sharing) economy [6]. Sharing Economy is an option for self-ownership that is emphasized where two or more individuals can enjoy the benefits (or costs) come from owning something. No longer "I" or "yours" property but seeing something as "belongs to us" [1]. Another previous research said this concept also know as online peer to peer; economic transaction between individuals vs individuals, company vs individual and company who act as supporting service platforms [7].

In sharing economy previous research, company almost never have the asset ownership but still able gain the benefits nor profit which based on ability of company to provide convenience in obtained with the main characteristics: 1) they have temporary access, non-ownership in the use of products and services; 2) integrated with internet, especially web 2.0 access [8].

The main factor in sharing economy is collaboration and teamwork between customer, company as applicaton platform provider which profit allocation able to measure the feasibility and effectiveness in the company also able to analyze the progress of its feasibility [9], from this point needs detail explanation through the comprehension of sharing economy concept and model applied in sharing economy nowadays.

According to explanation above, this research question wants to be answered is *what are factors related to sharing economy in people, process, technology perspective?*

As we know this research is currently new but every year become popular topic and interesting to discuss. Starting from model and the factors in sharing economy concept between consumer, company as technology provider bridges nor connector. Different country, different

concept and the model sharing economy is not standardized. The model developed based on government regulations, therefore this research purpose aims :

- Deeply understanding of sharing economy concept and also sharing economy model
- Found the factors in sharing economy related with people, process, technology perspective [10]

2. LITERATURE REVIEW

2.1. Sharing Economy

The term of 'sharing' in sharing economy basically refers to use and access of human resources or assets. Everyone involved and they gets the benefits by sharing the assets they have [11].

Sharing Economy refers to peer-to-peer sharing of goods, services, and information coordinated through community based on technology services. Peer to peer means person can be consumers as well as producers for other person [12].

Another definition of sharing economy, said that “sharing economy is new type of model business, which creates the principle of sharing for resources between person nor individu through peer-to-peer services and possible to use product nor service when they need it [13].

Table 1, shown the previous research about sharing economy concept with different definitions as well:

Table 1: The Definitions of Sharing Economy

Refences	Definitions
Shaheen, Mallory, and Kingsley (2012) [14]	A model that emphasizes “access” or “sharing” instead of ownership
Belk, (2010) [15]	“The act and process of distributing what is ours to others for their use and the act and process of receiving or taking something from others for our use”
Daunoriene et al (2015) [16]	An alternative to private ownership that is emphasized on market exchange and gift giving.
Bardhi & Eckhardt, (2015) [17]	Access over ownership is the most common mode of exchange. Access over ownership means that users may offer and share their goods and services to other users for a limited time through peer-to peer sharing activities, such as renting and lending
Filippas & Gramstad (2016) [18]	Online peer-to-peer marketplaces as platform for easier access to goods and services.
Roh (2016) [19]	A new economic model beyond the paradigm of mass production and consumption.
Cheng (2016) [20]	The phenomenon of peer to peer sharing of access to underutilized goods and services, which prioritizes the utilization and accessibility of ownership
Munoz & Cohen (2017) [21]	A socio- economic system enabling an intermediated set of exchanges of goods and services between individuals and organizations which aim to increase efficiency and optimization of under-utilized resources in society.
Kumar, Lahiri & Dogan (2017) [22]	The monetization of underutilized assets that are owned by service providers (firms or individuals) through short-term rental
Kooti et al (2017) [23]	Exchange services in a peer-to-peer fashion, through match- ing markets facilitated by social networks and online applications.
Godelnik (2017) [24]	A facilitation between stranger for share and utilized in reduce cost but gain benefit.
Böcker & Meelen, (2017) [25]	Consumers granting each other with temporary access to their under-utilized physical assets (“idle capacity”), possibly for money.

Belk, (2014) [2]	Dividing something between relative strangers or when it is intended as a one-time act such as providing someone with spare change, directions, or the time of day.
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Professor Yochai Benkler, Harvard University in his writing mention the prediction of social networking boom where each of individual would do sharing in meet their needs [26].

Previous research of sharing economy mentioned, there are some things that make this sector interested which the key elements are: shifted ownership; trend of technology; economic needs; digital native hood; convenience and opposed consumption [3],[24],[27].

Talked about the characteristics of the company who is adopting the sharing economy, mentioned with explanation like: (1) business idea “unlocking value” according to utilization of non-optimal assets for monetary or non-monetary benefits; (2) values adopted such as transparency, humanity, and authenticity for short and long term strategic decisions; (3) The providers of services are empowered as well as companies committed to making life service providers have better economic and social; (4) customers will get goods and services in a more efficient way that they pay for access but not ownership; [28].

Main benefits of sharing economy known as two ways impact for the company and individu such as: (1) Reduce the negative impact on the environment by reducing the amount to be produced that saves industrial pollution (such as reducing carbon footprint and human resource consumption); (2) Reduce production costs and enable recycling; (3) Increasing independence and flexibility; (4) Accelerate consumption patterns and sustainable production in cities around the world; (5) Improved service quality through rating system provided by users; (6) Increased flexibility of working hours and wages [8],[29],[30].

2.2. People, Process Technology Perspective

The successful of implementation for nowadays associated with people, process and technology [31]. In sharing economy, without doubt the same concept implemented and build by involving people, process and technology whom support all process and transaction [12].

Simple definition of people in sharing economy concept is person or individu who is doing sharing, without any relationship, not knowing each other but share each other [1] while, for the concept of "process" is a way to connect "people" and encourage to share by calculate the economic value and benefits for all parties [25].

Previous research mentioned as technology based. According to Böckmann, (2013) [25] one of main important factor which encourage sharing economy is technology that has helped Sharing Economy to become what is now [1].

In table 2, explained about definition people, process and technology in sharing economy based on previous research:

Table 2: The Definitions of People, Process, Technology in Sharing Economy

References	People	Process	Technology
Conte, (2016) [1]	Can use, share, without ownership.	The way of consume, engaging and joint activity, focusing on their interactions with customers/riders.	New kind of inter-personal relationship mediated
Banerjee, Freund, & Lykouris, (2016) [32]	Willing to share with, fullfil the needs of his/herself and others.	-	A systems, whom customers have access to a collection of personal needs which can be engaged anytime.

Kumar, Lahiri, & Dogan, (2017) [22]	Who coordinating, acquisition and distribution without any relationship or sometimes ownership.	The process of distributing what is ours to others for their use and the process of receiving or taking something from others for our use.	The digital concept of UI, ease payment transaction, tracking, product nor service availability and respond time.
Böckmann, (2013) [13]	The needs of value without belongings (non ownerships) who's participating in shared economy.	The measurement of shared in economic way and the value of acquiring in shared concepts.	Facilitates peer to peer transactions.
Böcker & Meelen, (2017) [25]	Who participate, engaged, consumption.	-	-
Cheng (2016) [20]	Who coordinating, consumption and distribution with fee nor economic benefits.	The way to encourage both parties whom participate in sharing economy to promote, create jobs.	The facilitations and enhance how to do share with.
Munoz & Cohen (2017) [21]	The network who cannot buy but can pay to who needs extra income in particular shared and gain benefits each others.	The model of how to utilized, and connect by relies on mobile connectivity	Platforms of collaborations.

3. METHODOLOGY

In this study author used a comprehensive literature review methodology of previous studies on sharing economy model about the relationship between the company as service providers, vehicle owners, and user as consumer.

In this research process was divided to: (1) determine the research sources; (2) determine the keyword patterns for the search process, (3) match criteria with research objectives, data mining, and analysis of findings and answers to the research questions. The paper based on previous publication date 2009 until now. Structure of the paper complete, which means all identity (journal/conference, identity of author, etc) is mentioned in the paper.

This paper adopted people, process, technology perspective from Bruce Schneier (1999) [10] which developed the original model “The Diamond Model” from Leavitt, H. J. (1964) [33]: structure, technology, people dan task.

Picture 1: “Diamond Model” [33]

Picture 2: “People-Process-Technology” [10]

3.1. Search Process

In the first step, author defined the source of literature:

- ACM Digital Library (dl.acm.org)

- IEEEXplore Digital Library (<http://ieeexplore.ieee.org>)
- Science Direct (www.sciencedirect.com)
- AIS Electronic Library

The keyword used in this research is using boolean approach by filtering data, therefore author can determine the priority for data searching based on symbol used. Symbol and Boolean operator used in this research are OR, AND, and combination between OR also AND, which described below:

- “Model Sharing Economy”
- “Sharing Economy” AND “Model”
- “Sharing Economy” AND “Factor”
- “Sharing and Economy” AND “Factor Model”
- “Sharing Economy” OR “Profit Model”
- “Sharing Economy” AND “Economic Model”
- “Sharing Economy” “Model”

3.2. Inclusion and Exclusion Criteria

After determined the literature source as part of search process, the next step is determining which paper used in the study. In the process of determine which paper to use begins with a summary of all papers found during the search (hereinafter referred as "Founded Study")

Hereafter, the process continues by take a look at the title of paper whether accordance with the purpose of research or not. If the title is appropriate, it would continue to read the abstract, then if the title and abstract appropriate, the paper will be downloaded for further research (hereinafter referred as "Candidate Study")

From the process of "Literature Candidate" then it will be continued to read the whole paper in order to answer and fulfil the purpose of research which is perceive the whole model of sharing economy; factors in sharing economy model and the selection process of this paper will determine which appropriate papers will be used (hereinafter referred as "Selected Study")

In this study the paper used is limited from 2009 to 2017. The reason is in 2009 UBER for the first time launched and became the starting point of awakening the concept of sharing economy.

3.3. Data Extractions

In data extractions, author found 376 papers based on keyword used. Adapted from abstract and tittle, there is 115 paper candidates and total 30 papers selected after reading more in both the introduction and the contents of the paper as shown in table 3:

Table 3: Data Extraction Result

Source	Founded	Candidate	Selected
ACM Digital Library	76	23	10
IEEEXplore Digital Library	46	15	5
Sciencedirect	201	67	12
AIS Electronic Library	53	10	3
Total	376	115	30

4. RESULT AND DISCUSSIONS

4.1. Publishing Outlet

4.1.1. Publication Source

The pattern of research according to 30 papers used, author mapping the source of paper and year of publication like seen in the table 4. From the table 4 shown the publication according to sharing economy in 2009 - 2011 none publication for sharing economy, starting from 2012 –2015 there is only one publication each year while for year 2016 there are 12 publications consist of 8 conferences and 4 journals and in 2017, related publications sharing economy total of 14 publications, 8 journals and 6 conference:

Table 4: Publications Source: Year and Type Publication

No.	Paper Title	Year	Source Type
1	Not just a taxi"? For-profit ridesharing .. [36]	2014	Journal
2	Pricing and Optimization in Shared .. [32]	2016	Conference
3	Drivers, riders and service providers .. [38]	2017	Conference
4	Sharing for .. [25]	2017	Journal
5	What's mine is yours .. [39]	2016	Journal
6	Exploring Sharing Economy Success .. [40]	2017	Conference
7	Dynamic Pricing .. [41]	2016	Conference
8	Sharing economy .. [20]	2016	Journal
9	Evaluating Sustainability .. [42]	2015	Journal
10	Upsides and downsides .. [43]	2017	Journal
11	Prices and Subsidies ..[44]	2016	Conference
12	A Model of Pricing .. [45]	2016	Conference
13	Millennials and .. [46]	2017	Journal
14	Social or Financial .. [47]	2016	Conference
15	Sharing for Profit .. [48]	2017	Journal
16	Sharing Means .. [49]	2017	Conference
17	Analyzing Uber's .. [50]	2017	Conference
18	A strategic framework .. [22]	2017	Journal
19	Research on .. [51]	2017	Conference
20	Understanding Sharing .. [52]	2016	Journal
21	Sharing intangibles .. [53]	2017	Journal
22	Mapping out .. [54]	2017	Journal
23	When sharing economy .. [55]	2017	Conference
24	A Taxonomy of .. [56]	2016	Conference
25	The Sharing Economy: .. [19]	2016	Journal
26	The cost to carshare .. [57]	2017	Journal
27	Personal vehicle sharing .. [58]	2012	Journal
28	Sharing Economy in .. [59]	2016	Conference
29	Economics of B2C Sharing .. [60]	2016	Conference

No.	Paper Title	Year	Source Type
30	The Shared Economy .. [61]	2013	Conference

Furthermore authors map the conference or journal origin from the paper as detail attached in table 5:

Table 5: Publications Source: #Publication Name

Publications Type	Publications Name	Total
Journal	Springer Science	1
Conference	ACM Conference on Economics and Computation	2
Conference	NetEcon “Economic of Network, Systems and Computation”	1
Journal	Journal of Environmental Innovation and Societal Transitions	2
Journal	Computer in Human Behavior	1
Conference	Pacific Asia Conference on Information Systems (PACIS)	1
Journal	International Journal of Hospitality Management	1
Journal	Procedia – Social and Behavioral Science	1
Journal	Journal of Technological Forecasting and Social Change	1
Conference	International World Wide Web Conference	2
Conference	International Conference on Informations Systems (ICIS)	3
Conference	Computer Human Interaction Conference	1
Journal	Annals for Tourism Research	1
Conference	International ACM of Web Science Conference	1
Journal	Journal of Industrial Marketing Management	1
Conference	International Conference on Management Engineering, Software Engineering and Service Sciences (ICMSS)	1
Journal	Journal of Ecological Economics	1
Journal	Journal of Business Research	1
Journal	Journal of Technological Forecasting and Social Change	1
Conference	International Conference on Electronic Governance and Open Society Challenges in Eurasia	1
Journal	Procedia Computer Science	1
Journal	Journal of Transport Policy	1
Journal	Research in Transportation Business and Management	1
Conference	Southeast Asia Computer Human Interaction Symposium	1
Conference	IBA Bachelor Thesis Conference	1

Publications Type	Publications Name	Total
Total		30

4.2. The Author of Papers

4.2.1. Profilic Authors

From total 30 papers, there are 77 authors. Overall the author from publication writing for only one according to sharing economy, in detail shown in table 6:

Table 6: The Author of Papers: Profilic Author

Author	#	%	Author	#	%
Adam Wierman	1	1,3%	Luca Maria Aiello	1	1,3%
Adi Tedjasaputra	1	1,3%	Ludovica Principato	1	1,3%
Alice Bieszczat	1	1,3%	M. Keith Chen	1	1,3%
Alina Yashina	1	1,3%	Marco Böckmann	1	1,3%
Andre Hanelt	1	1,3%	Mark A. Mallery	1	1,3%
Apostolos Filippas	1	1,3%	Marshall Van Alstyne	1	1,3%
Arne Rogde Gramstad	1	1,3%	Michael Sheldon	1	1,3%
Asta Daunoriene	1	1,3%	Mihajlo Grbovic	1	1,3%
Aura Draksaite	1	1,3%	Mingming Cheng	1	1,3%
Avishek Lahiri	1	1,3%	Neil C.A. Lee	1	1,3%
Betine Dreyer	1	1,3%	Nemanja Djuric	1	1,3%
Boyd Cohen	1	1,3%	Oleg Pachenkov	1	1,3%
Cheng Kui Huang	1	1,3%	Orhan Bahadır Dogan	1	1,3%
Christian Fieseler	1	1,3%	Pablo Munoz	1	1,3%
Christoph Lutz	1	1,3%	Päivi Kannisto	1	1,3%
Chun Der Chen	1	1,3%	Peter Maas	1	1,3%
Costas Courcoubetis	1	1,3%	Qing Ke	1	1,3%
Daniel Freund	1	1,3%	Qun Zhao	1	1,3%
Donald N. Anderson	1	1,3%	Ralph Hamann	1	1,3%
Eliane Bucher	1	1,3%	Raz Godelnik	1	1,3%
Eunice Sari	1	1,3%	Robert C. Nickerson	1	1,3%
Farshad Kooti	1	1,3%	Saif Benjaafar	1	1,3%
Florian Lüdeke-Freund	1	1,3%	Sangkeun Park	1	1,3%
Gennaro Iasevoli	1	1,3%	Seunghyun Kim	1	1,3%
Gerrit Remane	1	1,3%	Shuhua Li	1	1,3%
Gitana Valodkiene	1	1,3%	Siddhartha Banerjee	1	1,3%
Harald Bernhard	1	1,3%	Susan A. Shaheen	1	1,3%
Jan F. Tesch	1	1,3%	Susik Yoon	1	1,3%
Jin Long Wang	1	1,3%	Tae Hyup Roh	1	1,3%
Jiwon Jung	1	1,3%	Thodoris Lykouris	1	1,3%
Joseph P. Schwieterman	1	1,3%	Tiange Chen	1	1,3%
Junfeng Liao	1	1,3%	Toon Meelen	1	1,3%

Author	#	%		Author	#	%
Karla J. Kingsley	1	1,3%		Uichin Lee	1	1,3%
Kristina Lerman	1	1,3%		V. Kumar	1	1,3%
Kristy Faccer	1	1,3%		Veselina Milanova	1	1,3%
Kun Pyo Lee	1	1,3%		Vladan Radosavljevic	1	1,3%
Lars Böcker	1	1,3%		Vytautas Snieska	1	1,3%
Laura Michelini	1	1,3%		Zhixuan Fang	1	1,3%
Longbo Huang	1	1,3%				
Total		50,6%		Total		49,4%

4.2.2. Authors' Institutions

From 30 papers with 77 authors, there are 49 institutions involved. The institution productively conducts research on the concept of sharing economy is University of Oslo with contribution of 2 papers and the rest of each institution contributes 1 paper with detail in table 7:

Table 7: The Author of Papers: Authors' Institutions

Institutions	#	%
Aalto University Indonesia/Finland	1	2%
Bell Laboratories	1	2%
Boston University	1	2%
California Institute of Technology	1	2%
Chaddick Institute for Metropolitan Development	1	2%
Cornell University	1	2%
DePaul University	1	2%
Duksung Women's University	1	2%
EADA Business School	1	2%
European University	1	2%
Georgia State University	1	2%
Huazhong University of Science and Technology	1	2%
Indian School of Business	1	2%
Indiana University	1	2%
Kaunas University of Technology	1	2%
Korea Advanced Institute of Science and Technology	1	2%
LUMSA University	1	2%
Ming Chuan University	1	2%
National Central University	1	2%
New York University	1	2%
Ningbo University	1	2%
Norwegian Business School (BI)	1	2%
Parsons School of Design	1	2%
Roma Tre University	1	2%
San Francisco State University	1	2%
School of Public Service United States	1	2%
Singapore University of Technology and Design	1	2%
South China University of Technology	1	2%

Institutions	#	%
St. Petersburg State University	1	2%
Texas A&M University	1	2%
Tilburg University	1	2%
Tsinghua University	1	2%
UCLA Anderson	1	2%
Universität Hamburg	1	2%
University of Arizona	1	2%
University of California	1	2%
University of Cape Town	1	2%
University of Chicago	1	2%
University of Göttingen	1	2%
University of Leeds	1	2%
University of Minnesota	1	2%
University of Oslo	2	4%
University of St. Gallen	1	2%
University of Technology Sydney	1	2%
University of Twente	1	2%
USC Information Sciences Institute	1	2%
Utrecht University	1	2%
UX Indonesia	1	2%
Yahoo Research	1	2%
Total	49	100%

4.2.3. Authors' Academic Background

In table 8, from 77 authors there are 11 academic backgrounds. In detail, the academic background can group into big 3: Computer Science there are 24 publications, Business & Management there are 19 publications and Information Systems there are 11 publications.

From authors' academic background, we can conclude in sharing economy is not only Business and Management domain but rather the science of Technology and Information Systems. When we talked about sharing economy the main topic almost about the applications used, how applications used for the transaction and also support the sharing economy in business concept [13].

Table 8: The Author of Papers: Authors' Academic Background

Department	#	%
Business & Management	19	25%
Civil and Environmental Engineering	1	1%
Communications	3	4%
Computer Science	24	31%
Economy	9	12%
Food Technology	1	1%
Information Systems	11	14%
Public Services	1	1%
Social Sciences and Humanities	4	5%
Sociology	2	3%

Tourism	2	3%
Total	77	100%

4.3. Literature Mapping

The next discussion, authors mapping in accordance with the concept approach People, Process and Technology perspective. In previous studies related to the sharing economy the initial steps of this research begin by: (1) analyzing the model of sharing economy adopted by the company; (2) comparing the whole model of sharing economy as seen the results in Table 9 below:

Table 9. Variable Classifications

No.	Variables	Sub Variable	Component	Source Publications
1.	People	Community	Drivers/Riders	[43], [48], [22], [52], [58]; [61]
			Customers	[43]; [48]; [22]; [52]; [58]; [61]
			Guest	[22]; [52]; [58];
2	Process	Networking	Lifestyle	[32]; [39]; [40]; [20]; [42]; [47]; [46]; [49]; [51]; [54]; [55]; [59]; [58]; [61]
			Advertise	[40]; [22]; [51]; [52]; [53]; [57]; [61];
			Branding	[40]; [48]; [49]; [52]; [53]
			Franchising	[48]; [22]; [57]
			Mobility	[38]; [39]; [20]; [43]
3	Technology	Access Ownership	Licences Fee	[52]; [61]; [57]
			Public Service	[32]; [47]; [46]; [48]; [49]; [50]; [51]; [53]; [54]; [55]; [57]; [58]
			Assets Utilization	[36]; [38]; [47]; [49]; [51]; [54]; [55]; [57]; [59]; [60]
		Platforms	Apps Usage	[38]; [39]; [43]; [45]; [46]; [48]; [22]; [52]; [57]; [59]; [61]
			Apps Device	[38]; [43]; [46]; [45]; [48]; [52]; [60]; [59]; [61]
			Services Support	[36]; [40]; [22]; [53]; [54]; [58]
		Payment Systems	Payment Gateway	[20]; [43]; [48]; [22]; [52]; [60]; [61];
			Third party revenue	[20]; [48]; [57]; [59]; [60]
			Referral	[40]; [48]; [57]
			Ventura Capital	[40]; [41]; [52]; [53]; [58]; [61]

No.	Variables	Sub Variable	Component	Source Publications
			Revenue Model Simulation	[32]; [36]; [20]; [41]; [44]; [48]; [50]; [57]; [58]; [60];[61]

From the description above, each sub-variables are successfully parsed describe there are components more or less have a relationship in sharing economy model development. From total of 30 selected papers, there are 5 subvariables with 19 factors approach to the sharing economy model :

1. Community

Community defined as a group of people who have the same needs and sometimes they also have something that can be used to meet those needs either for himself or for others [60]. Community in sharing economy as known as: consumer; driver/rider and guest which simulant provide benefits and mutual need one and other [22],[43],[48]

2. Networking

The basic concept of sharing economy is building a relationship that is connected to each other. Believe it or not networking is created when the concept of sharing economy built by the motivation to share each other by mutually beneficial and able to create a pleasant socialization between the two parties [22].

3. Access ownership

In sharing economy, ownership becomes a common thing. The important point even without ownership everyone has access that ultimately enjoys [38]. More specifically, the concept of sharing economy of asset ownership is sometimes biased because of the many perceptions of joint ownership. In his research Bucher [39] reveals that the context of sharing economy is shared, including unification and allocation of resources, the use of public property, but not contractual rent, lease or use of unauthorized properties such as theft or pseudo-sharing recognized legitimate and voluntary.

4. Platforms

Talked about platforms, it will refer to apps that serve as well as e-marketplace for every service provider, user or guest [38]. Marco Böckmann (2013) [13] mentions the platform is an innovative 'consume and collaborate' which enables users to find an easy way to meet their needs and provide benefits to other parties related to the utilization of assets with more leverage and profitable.

5. Payment systems

The ease of payment becomes much-highlighted part of the sharing economy [22]. The payment system becomes a main point not only facilitates payment but also accelerates transaction processing while maintaining a high level of security (use of credit cards or electronic balances known as digital currencies) to gain trust from users or providers [13] Furthermore, in application payment system is able to provide detailed calculations to users and service providers [2] as well as for companies providing payment system application becomes an easy tool in the process of transfer balances or payment process from users to service providers or companies to service providers and companies to the user [43].

Picture 3. Flow of Payment Model

5. CONCLUSION AND IMPLICATIONS

From this research, author found, it can not be denied in the concept of sharing economic role of people, process and technology are interconnected. From the above it is known that the approach of people, process and technology there are 5 sub variables which overall from the sharing economy model applied and interconnected. The concept of sharing economy "people" becomes the most important part as the main actor who can also has double role (either as asset provider or as user) the other things is "process" in sharing economy become bridge about how share doing, "The process is carefully crafted to avoid bias because of a change from "mine" to "ours". Technology perspective facilitate and support e-marketplace as a meeting place of service providers and also service users.

The implication has 2 approach for the theory and practice. For theory, it can be referenced and guided for next research about sharing economy. For the practice side, it gives contribution for application design in sharing economy used people, process and technology perspective.

6. LIMITATION & FUTURE RESEARCH

The author still has limitations for the literature sources, and for future research is still possible to developed richer literature, where as discussion of sharing economy concept approach people, process and technology perspective is still not sufficient reviewed in detail.

For further research, it would be interesting to discuss related the revenue model adopted by sharing economy, it is not only talk about fixed revenue as well as the costs invested and the ability to stay competitive and make a profit. On the other hand, sharing economy model not standardized pattern associated with a good model and suitable to be implemented in Indonesia, by comparing implementation of sharing economy model will provide added value for another parties. In further research can measure with quantitative data approach related to the sharing economy model including with the pattern of customer behavior which allows better design for sharing economy model in the future.

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