An examination on the theories and practices of the sharing economy with special reference to the Hong Kong case

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Abstract:

In the field of ecommerce, the subject of the sharing economy is a recent one, and a controversial one for that. At the same time, sharing economy business models and activities, notably Uber, have also stirred up hot debate in cities of different countries. This paper examines the sharing economy subject based on literature review. Out of the review, six study areas of the sharing economy have been identified, namely, the nature of sharing, subcategories of the sharing economy, information technology platforms and infrastructures, business models and strategies, impacts and stakeholders' concerns, and recommended government policies and regulations. In addition, the paper studies the Uber case in Hong Kong using newspaper article study and a Facebook-based questionnaire survey on the sharing economy. The main findings confirm the controversialness of the subject. On the whole, survey respondents hold a positive view on the sharing economy though the majority of them are either not familiar with or have no idea on the subject.

Key words: Facebook-based questionnaire survey; Multiple regression analysis; Newspaper article study; The sharing economy; Uber.

Introduction

The subject of ecommerce has a history of over twenty years. Mougayar (1998) distinguishes the traditional electronic

commerce and the Internet-driven electronic commerce. The onset of the latter took place with the increasing popularity of web browser around 1996 (see Wikipedia (2015) for the timeline web browsers.) It is clear that the subject is an evolving subject, a recent topic of which is "the sharing economy". In particular, in Hong Kong, the business model of Uber has stirred up much controversies and conflicts. As this writer has been teaching the subject of ecommerce since 2000, the recent topic catches his attention. Thus, due to the present academic and public interest in the subject of the sharing economy, the writer conducts a study on it with literature review (Ho, 2015a), the newspaper article study method (Ho, 2015b) and a Facebook-based survey (Ho, 2014). The main focus here is on reviewing the theories, perceptions and practices of the sharing economy in the context of Hong Kong as a way to further clarify the ideas and concerns in the sharing economy. The study also offers useful teaching materials on this topic. Therefore, the study is intended to create both academic and pedagogical values.

The intellectual landscape of the sharing economy subject in terms of six study areas

While coming up with a solid definition of the sharing economy is difficult (Schor, 2014), it is still possible to introduce the basic idea involved to facilitate the discussion here. Roughly, the sharing economy involves a type of business "built on the sharing of resource – allowing customers to access goods when needed" (Triple Pundit, 2015). Another name of it is the access economy. The sharing economy subject comprises a number of related study areas. Six study areas are identified here:

a. *The nature of sharing*: Knowledge of types of sharing and motivation of sharing is fundamental for comprehending the sharing economy subject. John (2013) reminds us that,

according to the Oxford English Dictionary, to share is to cut into parts or to divide. This definition underlines the "active practice" of distribution implicated in sharing (John, 2013). In addition, sharing can also mean (i) to have something in common with others, e.g., room-sharing and (ii) to communicate feelings and emotions with others. Other than types of sharing, another discussion item is on motivation of sharing. It has been postulated that sharing indicates "openness", "mutuality" and "feminine values" (John, 2013). In particular, sharing in consumption (i.e., collaborative consumption) is motivated by money saving and environmental preservation (John, 2013). Furthermore, sharing norm is fostered by social networking activities (John, 2013), which in turn makes collaborative consumption a natural evolution of consumer behavior (Scholz, 2015). At the end of the day, what keep people sharing is suggested to be "the ability to meet and interact with others in a positive way" (P2P foundation, 2015) and sharing, in the form of collaborative consumption, will grow when it becomes as convenient, inexpensive, customizable and safe as what current markets offer (Johnson, 2012). (One can also find videos on why people participate in the sharing economy in Youtube.com.) The discussion of "sharing nature" informs the discussion of the "subcategories of the sharing economy", another study area.

b. *Subcategories of the sharing economy*: The sharing economy has a specific meaning as sharing "property, resources, time and skills across online platforms" (Wosskow, 2014) and it is market-mediated[1] and access-based[2] (Belk, 2014). John (2013) further distinguishes two subcategories of the sharing economy, namely: (i) sharing economies of

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[1] The sharing economy has been described as "a market form in which strangers – rather than kin and communities – exchange goods and services" (Schor and Fitzmaurice, 2014).

[2] Access-based consumption is "transactions that can be market mediated but where no transfer of ownership takes place" (Bardhi and Echhardt, 2012).

production, e.g., Wikipedia and Linux, and (ii) sharing economies of consumption, comprising personal property sharing and collaborative consumption. The literature also examines some industry-specific sectors of the sharing economy, e.g., the hotel sector and the transportation sector.

c. *Information technology (IT) platforms and infrastructures*: The IT platforms and infrastructures for the sharing economy are described as mind-boggling, from "pure sharing services with no money changing hands to commercial services…" (Hirshon *et al.*, 2015). Nevertheless, the underlying IT platform products are relatively clear: (i) sharing and booking apps, e.g., the apps products from shrebo.com and (ii) identity verification products, e.g., computer vision technology (Jumio, 2015). With these platforms and infrastructures, sharing economy businesses "relinquishes ownership to the ecosystem" while actively "creating better mechanisms of trust to identify and differentiate good behavior from poor behavior" (Platform Thinking Labs, 2015). One can locate Youtube videos that illustrate how to employ these IT tools in the sharing economy.

d. *Business models and strategies*: Business models of enterprises link their workings with elements inside and outside of them and are designed to capture and monetize value (Baden-Fuller and Mangematin, 2013). These business models for the sharing economy can be classified along two dimensions (Schor, 2014): *dimension 1- types of provider*: peer to peer (option a) and business to peer (option b); *dimension 2 – platform orientation*: for profit (option a) and non-profit (option b). The topic of sharing economy business models triggers a debate on the legal status of the workers involved: are they employees or independent contractors? (Blanding, 2015) and on their impacts to the economy, e.g., the risk of creating a monopoly "in a sharing economy industry that has not been fully defined yet"

(Gilpin, 2015). Pcw.com.uk, on reviewing five sharing economy sectors, namely, peer-to-peer accommodation, car sharing, peer-to-peer finance, music TV and video streaming and online staffing, offers a five-steps approach to compete successfully in the sharing economy (pcw.com.hk, 2015). They are: *step 1*: "understand sharing models and the potential role they could play in your sector"; *step 2*: "Take action: protect, prepare or pivot"; *step 3*: "focus on the consumer experience"; *step 4*: conduct a 'sharing audit' of your organisation's asset base – tangible and intangible" and, finally, *step 5*: "anticipate regulation and highlight the value of your organization". Apparently, the question of how to respond to and compete in the sharing economy cannot be simply answered with the pcw's 5-steps approach. Besides, "a comprehensive perspective on available marketplace for "sharing" businesses" has not been well developed (Hellwig *et al*, 2015).

e. *Impacts and stakeholders' concerns*: Stakeholders are parties who have a vested interest in a subject matter, e.g., the sharing economy. Thus, they experience different impacts as well as possess diverse influences, concerns and responses. In this respect, a number of impacts have been identified with the sharing economy. On the positive side: it (i) develops microentrepreneurs and promote innovation (Wosskow, 2014), (ii) saves or earns some money (Thepeoplewhoshare.com, 2013), (iii) promotes consumption in an environmentally friendly way (Thepeoplewhoshare.com, 2013), (iv) creates additional temporary employment (Dillahunt and Malone, 2015), (v) enhances social interaction (Dillahunt and Malone, 2015), (vi) makes more resources and new services, e.g. in transport and social care, accessible to the society (Dillahunt and Malone, 2015; Wosskow, 2014), and (vii) makes better utilization of companies' assets, e.g. office space and production resources (Godelnik, 2013). On the

negative side, (i) innovation via the sharing economy can also hurt established companies in the private sectors, (ii) it aggravates the digital divide problems as the digitally excluded citizens are not able to participate in the sharing economy (Wosskow, 2014), (iii) consumers can be exposed to new risk in innovative business transaction arrangement in the sharing economy, (iv) it mainly creates part-time low-paid work (Penn and Wihbey, 2015), (v) it reduces companies' sales turnover for items such as autos and homes as consumers rely more sharing and renting (Godelnik, 2013), and (vi) governments may lose tax income as a result of the disruptive impacts of the sharing economy; besides, government may need to establish new ways to levy tax on innovative business models in the sharing economy. On the whole, the implications of the sharing economy impacts are being vehemently debated in the public media and the academic world (Penn and Wihbey, 2015). As expected, there are local politics involved in the background of the debate.

f. *Recommended government policies and regulations*: The innovativeness of the sharing economy challenges the existing government policies and unleashes debates on how to revise them. Specifically, on the one hand, there has been suspicion that sharing economy businesses are exploiting legal loopholes with their business models (Penn and Wihbey, 2015), but on the other hand, government polices to promote beneficial sharing economy development have been suggested in the literature. Recommendations have been proposed in the literature. For example, Wosskow (2014)'s recommendations on government policies cover: (i) innovation promotion policies, e.g. establishment of an innovation lab., (ii) ecommerce trust-enhancement infrastructure, (iii) more government procurement via the sharing economy platforms, (iv) clearer guide on proper insurance coverage for the sharing economy, (v) promotion

of digital inclusion for more citizens to participate in the sharing economy, (vi) revised tax system and legislation to properly cover and regulate the innovative business models of the sharing economy. Understandably, the process of revising existing government policies and formulating new ones to regulate innovative business models in the sharing economy is controversial as not all stakeholders benefit from the sharing economy. As such, policy tradeoffs, via debates and political actions, need to be made on a number of considerations as identified by Leigh (2015): (i) public safety protection vs innovation support, (ii) new competition introduced to industries vs worker and consumer protections, and (iii) collection of taxes from new businesses vs new red tape with new taxation regulations.

Together, the six study areas of the sharing economy, which are closely associated, render a sketchy picture of the intellectual landscape of the sharing economy. They offer the conceptual ideas to examine real-life sharing economy practices. Also, without application in specific real-life cases, these ideas from the literature remain abstract. Thus, in the next section, the writer is going to consider the illustrative case of Uber in Hong Kong.

The illustrative Uber case in Hong Kong with newspaper article study

Recently, there is quite a lot of local news and debate about the impacts of Uber and the sharing economy to the Hong Kong society and the taxi sector in Hong Kong. It makes up a relevant case study of the sharing economy using the knowledge gained from the literature review in the previous section. Here, making use of newspaper article study (Ho, 2015b), the writer relates the newspaper articles from the *South China Morning Post* of Hong Kong on the Uber case to

the six study areas of the sharing economy. He comes up with Table 1 as follows:

Table 1: Study areas of the sharing economy and illustrative news on Uber in Hong Kong

Study areas of the sharing economy	*Illustrative news on Uber in Hong Kong from the South China Morning Post*
1. The nature of sharing	No major local news per se; the topic is included in the other study areas.
2. Subcategories of the sharing economy	No major local news per se; the topic is included in the other study areas.
3. Information technology platforms and infrastructures	Chen (2015a): ".. a number of industry groups released a survey showing nearly one in three people in Hong Kong use the Internet dip into services such as car-hailing app Uber, flat-rental site Airbnb, crowdfunding operations or other peer-to-peer platforms…" SCMP Editorial (2015): "Through mobile device apps, passengers are able to travel with greater comfort, convenience and certainty. Yet, authorities are so far having none of it; instead of finding ways to accommodate, there have instead been arrests of drivers and managers and the impounding of vehicles and equipment…." Wu (2015): "Technology……has empowered commuters to track where their Uber drivers are, but allowing drivers, companies and god-know-who-else access to track the whereabouts of individuals is a serious privacy and security issue..".
4. Business models and strategies	Sung and Lee (2015): "Two more Uber drivers were arrested yesterday…..Police had acted on allegation Uber drivers were using cars without permits and proper insurance. The move is linked to the company's rapid expansion to add private-car owners to its roster, after originally using limousine-licensed companies….. Traditional taxi drivers are now in the advanced stages of launching a platform to rival Uber…" Griffiths (2015): "Car-hailing app firm Uber has brought its helicopter rental service to Hong Kong, with customers in the city being offered aerial tours for HK$1,800 per person…" Ng (2015): "..Car-calling app services are not cheaper than taxis, but they are still very popular…..there is a big market for Uber and similar services…."

	Lee (2015a): "…"Taxi drivers misconduct has spread into many areas, which is why there is public demand for support for online hire-car services like Uber," said Tien [The Legislative Council's Transport panel chairman Michael Tien Puk-sun] "If you think about what Uber is offering, it is directly focusing on these complaint areas."…."
5. Impacts and stakeholders' concerns	Chen (2015b): "Uber North Asia general manager Sam Gellman: … We've been overwhelmed by the huge support we've received from the public, including the 50,000+ petition signatures we received in just over a day. It shows that our riders rely on us to get them around the city safely and reliably …" van der Kamp (2015): "…HK\$127 billion. That's about how much the present owners of 18,138 taxi licences would stand to lose if we brought Hong Kong into the 21st century world of efficient tax services, Uber style…. These taxi owners control 3 of 208 votes for the transport functional constituency seats in the Legislative Council, the largest single voting bloc in that constituency….." Lhatoo (2015): "…drivers across town are breaking the law all the time with impunity, and very little to nothing is being done about it. Their rudeness has always been a problem…….. That's why there's been such an outpouring of public sympathy for Uber…" Lo (2015): "Officials are perfectly fine if licensed taxis use advanced Uber-like apps to add to their services…. But it's unlicensed, non-taxi vehicles that most Uber supporters want…. Customers…want nice cars, not our regular taxis frequently offering substandard service…" Lai (2015): "Taxi groups are planning to launch their own car-hailing mobile app and a credit system for drivers to help improve service quality in the face of competition with Uber and similar services…." Anderson (2015): "We are an international city, and that requires us to adapt to global levels of service…… we need to be seen as a bit more entrepreneurial in focus…" Yau (2015): "From sparking a night of rioting, bashing the "discount gangs", calling for fare rises and

		freewheeling between driving and managing numerous smartphones while touting for business, the city's taxi drivers can be stunningly vociferous and aggressive in fighting their corner whenever conflicts arise…"
6.	Recommended government policies and regulations	Chen (2015b): "Uber is keen to work with the Hong Kong government to develop "smart regulations" to fit with people's needs in the digital era ……."
		Lau (2015): "Two members of the Transport Advisory Committee have come out in favour of giving taxi licences to private drivers….. committee member Terence Tong Tai-leung…said: "There is no obligation for the government to protect licence holders' profitability….I personally think Uber-like services] should be embraced"…."
		Lee (2015b): "A Hong Kong government agency which endorsed Uber as one of its "success stories" has distanced itself from the car-hailing app after police raids on the company's offices in the city and arrest of five drivers in a crackdown on unlicensed transport services. InvestHK….deleted a webpage providing a glowing appraisal for the online-car hire giant….."
		Wu (2015): "The fact that existing regulations are not up to date isn't surprising. Most were set up by governments to protect people, but over time, "regulatory capture" occurs, because it becomes the bread and butter for special interests…"
		SCMP Editorial (2015): "Taxi should be regulated; third-party insurance, the reliability and cleanliness of vehicles and the trustworthiness of drivers have to be assured. But maintaining a monopoly makes innovation and improved services less likely…"
		Ng (2015): "Hong Kong Consumer Council to study legality of Uber services" *South China Morning Post* August 16. "The Consumer Council will study the opening up of the taxi services market in Hong Kong amid the rising popularity of controversial car-hailing app Uber….."

The local news in Hong Kong on Uber illustrates in a vivid way the ideas and related issues examined in the six study areas of the sharing economy. These local newspaper articles enable us to comprehend and critically examine the sharing economy

literature, notably on the controversialness and complexity of the subject. At the same time, by relating the local debate on the sharing economy to the literature, we are able to evaluate the various viewpoints expressed by various stakeholders in the local newspaper articles in a more intelligent way. Yet another way to comprehend the impacts of the sharing economy in Hong Kong is via a questionnaire survey. This has been carried out recently by the writer and the survey findings are reported in the ensuing section.

Survey findings on the sharing economy in Hong Kong

A questionnaire survey was conducted from August 27 to 31 with the writer's Facebook friends using the online survey tool from kwiksurveys.com. This survey method has been employed by the writer quite a number of times and the strengths and weaknesses of this survey method were examined by Ho (2014). There are 490 Facebook friends on the writer's account, most of whom are the writer's previous and current students. Ultimately, 102 of them (and possibly friends of them) have participated in the survey. The following are the main findings from the survey. Readers are also referred to *Appendix 1* for the list of survey questions and basic survey statistics.

Finding 1 (re: survey questions 6 and 7): The following statistics, summarized in Table 2, show respondents' familiarity with the sharing economy topic.

Table 2: Respondents' familiarity with the sharing economy topic and perception on its controversialness:

Responses	Familiarity with the topic (re: survey question 6)	Perception on the topic's controversialness (re: question 7)
Yes, very much so	9 (8.82%)	8 (7.92%)
Yes, feel mildly so	31 (30.39%)	40 (39.6%)
No, do not feel so	45 (44.12%)	26 (25.74%)
No idea/ comment	17 (16.67%)	27 (26.73%)

Referring to Table 2, the majority of the respondents are either not familiar with or have no idea/ comment on the sharing economy topic. This is especially the case on the perception on its controversialness, with only 25.74% of the respondents not feeling that the topic is controversial. This finding is related to all the study areas of the sharing economy.

Finding 2 (re: survey questions 8, 9, 10 and 11): The following statistics, summarized in Table 3, indicate respondents' perceptions on the impacts of the sharing economy.

Table 3: Perceived impacts of the sharing economy on Hong Kong

Responses	*The sharing economy's size will grow by at least 20% p.a. in the coming 2 years (re: survey question 8)*	*The sharing economy is able to improve HK's quality of life (re: survey question 9)*	*The sharing economy is able to promote HK's entrepreneurship spirit (re: survey question 10)*	*The sharing economy is able to reduce HK's unemployment rate substantially (re: survey question 11)*
Yes, very much so	10 (9.8%)	18 (17.65%)	14 (14.73%)	9 (8.82%)
Yes, feel mildly so	30 (29.41%)	37 (36.27%)	34 (33.33%)	37 (36.27%)
No, do not feel so	40 (39.22%)	31 (30.39%)	33 (32.35%)	42 (41.18%)
No idea/ comment	22 (21.57%)	16 (15.69%)	21 (20.59%)	14 (13.73%)

Regarding Table 3, respondents who feel strongly or mildly about the positive impacts from the sharing economy, e.g., on growth rate, quality of life, entrepreneurship spirit and unemployment rate, make up around 40 to 55% of the total respondents. The highest percentage is on its impact on quality of life (re: survey question 9; 17.65% + 36.27% = 53.92%) and the lowest percentage is on its expected growth rate (re: survey question 8; 9.8% + 29.41% = 39.21%). On the whole, the general perception on the impacts of the sharing economy on Hong Kong is basically favourable. The percentages of respondents who do not feel so for questions 8 to 11 are all below 45%. This

finding on perceived impacts is related to the study area of "Impacts and stakeholders' concerns".

Finding 3 (re: survey questions 12, 13, 14 and 15): The following statistics, summarized in Table 4, reveal the sharing economy participation-related profile of the respondents.

Table 4: Sharing economy participation-related profile of the survey respondents

Responses	Have participated in the sharing economy as a consumer (re: survey question 12)	Will participate in the sharing economy as a consumer in the coming 2 years (re: survey question 14)	Have participated in the sharing economy as a seller (re: survey question 13)	Will participate in the sharing economy as a seller in the coming 2 years (re: survey question 15)
Yes	29 (29%)	21 (20.59%)	10 (9.8%)	4 (3.92%)
No	58 (58%)	37 (36.27%)	80 (78.43%)	14 (13.73%)
No idea/comment	13 (13%)	22 (21.57%)	12 (11.76%)	23 (22.55%)

The figures in Table 4 reveal that a significant minority of the respondents (re: survey question 12; 29% of the total respondents) has participated in the sharing economy as consumers but they appear to be getting less interested in doing so in the near future (re: survey question 14; 20.59%). The corresponding figures for respondents as sellers are much lower (re: survey question 13); again, the interest to do so as sellers in the future is less (at 3.92% of the total respondents; re: survey question 15). In spite of the low figures shown in Table 4, the survey result of question 8 indicates that 39.21% (9.8% + 29.41%) of the respondents feel that the sharing economy will grow in size by at least 20% p.a. in the coming 2 years. These two findings appear to be contradictory in the respondents' mood on the two related issues. Regardless, finding 3 is related to the study areas of "The nature of sharing" and "Impacts and stakeholders' concerns".

Finding 4 (re: survey questions 16 and 17): The following statistics are related to the government's role in the sharing economy of Hong Kong. They are presented in Table 5.

Table 5: Perceptions on the government's role in the Hong Kong sharing economy

Responses	Feeling that the present sharing economy of Hong Kong is underdeveloped (re: survey question 17)	Feeling that the Hong Kong government needs to do more to promote the sharing economy (re: survey question 16)
Yes, very much so	30 (29.41%)	29 (29.29%)
Yes, feel mildly so	45 (44.12%)	44 (44.44%)
No, do not feel so	14 (13.73%)	11 (11.11%)
No idea/ comment	13 (12.75%)	15 (15.15%)

Referring to Table 5, the figures clearly indicate the feeling by the respondents that the local sharing economy is underdeveloped (re: survey question 17) and that the government needs to do more to promote it (re: survey question 16. Finding 4 is related to the study area of "Recommended government policies and regulations".

Finding 5 (re: survey questions 1, 2, 3, 4, 5, 6, 16 and 18): The finding is derived from a multiple regression analysis (Lind, Marchal and Mason, 2001: chapter 14) on survey data, which can be exported to Excel for a regression analysis. The following multiple regression formula is considered:

Interest in learning the sharing economy subject (y variable) = a + b1 x (x1: gender) + b2 x (x2: age group) + b3 x (x3: education background) + b4 x (x4: self-perceived social class) + b5 x (x5: knowledgeable in apps usage) + b6 x (x6: familiarity with the sharing economy) + b7 x (x7: government to promote the sharing economy)

Further details about the formula are as follows:
I.   <u>On the dependent (the y variable) and independent variables (the x variables) of the formula</u>
Interest in learning the sharing economy subject (the y variable) is related to survey question 18.

x1 (gender) is related to survey question 1.

x2 (age group) is related to survey question 2.

x3 (education background) is related to survey question 3.

x4 (self-perceived social class) is related to survey question 4.

x5 (knowledgeable in apps usage) is related to survey question 5.

x6 (familiarity with the sharing economy) is related to survey question 6.

x7 (government to promote the sharing economy) is related to survey question 16.

II.   On the coding scheme employed for the regression analysis

   i) perception items:

Yes, very much so: 3

Yes, I have this feeling mildly: 2

No, I do not feel this way: 1

   ii) gender:

Female: 1

Male: 2

   iii) age group:

18 to 27:   22.5

28 to 37:   32.5

38 to 47:   42.5

48 to 57:   52.5

58 to 67:   62.5

68 or above: 72.5

   iv) education background:

Finished Ph.D. Degree study: 4

Finished Master Degree study: 3

Finished Undergraduate Degree study: 2

Not yet a degree-holder: 1

   v) self-perceived social class:
        Upper class: 3
        Middle class: 2
        Lower class: 1

The resultant multiple regression formula is as follows (re: *Appendix 2*):

Interest in learning the sharing economy subject (y variable) = 0.4289 – 0.1384 x (x1: gender) + 0.0061 x (x2: age group) + 0.0634 x (x3: education background) + 0.1123 x (x4: self-perceived social class) + 0.0856 x (x5: knowledgeable in apps usage) + 0.0693 x (x6: familiarity with the sharing economy) + 0.5565 x (x7: government to promote the sharing economy)

Interpretation: For all the independent variable x1 to x7, only x1 has a negative correlation. In this case, male respondents have a lower interest in learning the subject of the sharing economy than female respondents. The other independent variables (x2 to x7) have a positive correlation with the dependent variable y (Interest in learning the sharing economy subject). Nevertheless, the correlation of all the x variables, except x7, are quite weak, as their p-values are much larger than 5% (the critical value for a two-tailed hypothesis test adopted here) and their b values are quite small, ranging from 0.0061 to -0.1384. Specifically, the null hypothesis of the b values of b1 to b6 being zero cannot be rejected in this case. As to x7, the respective p-value is 2.22204E-07, which is much smaller than 5% (the critical value chosen for a hypothesis test here). Therefore, the null hypothesis of the value of b7 being zero can be rejected. Indeed, the value of b7, at 0.5565 is also much larger than the b values of the other independent variables (i.e., x1 to x 6). Finding 5 is weakly related to the study areas of "The nature of sharing" and "Impacts and stakeholders' concerns".

In general, the majority of the respondents are unfamiliar with the sharing economy subject and feel that the subject is controversial. Nevertheless, their general perception of the sharing economy is favorable. This positive perception is in line with their preference for the Hong Kong government to do more to promote the sharing economy. Overall, the five survey findings help us to understand more about the study

areas of the sharing economy in the context of Hong Kong and complement the information from the newspaper article study.

Concluding remarks

The literature review, newspaper article study and Facebook-based survey all underline the controversialness and complexity of the subject of the sharing economy. At the same time, the overall perception of the sharing economy is positive although the subject is not well understood in the society. This paper goes some way to clarifying its nature and current status of adoption and perceptions in the context of Hong Kong. A limitation of this paper is that no theory-driven analysis on the empirical findings is provided. Understandably, a number of theoretical, business model and policy issues remain debatable in the academic community and in the society. Its soft complexity and controversialness also point to the relevance for the employment of creative holism[3] (Jackson, 2003) in its investigation. As far as the writer is aware of, this research topic of creative holism study on the sharing economy has not been examined in the academic community. In any case, much more research effort still needs to be made on the sharing economy subject.

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[3] *Creative holism* is M.C. Jackson (2003)'s version of critical systems thinking.

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APPENDIX

Appendix 1: The Facebook-based survey questions (18 questions) and responses statistics (from August 27 to 30, 2015).

Survey questions	Survey statistics
Question 1: What is your gender?	Male: 45 (44.12%) Female: 57 (55.88%) Standard deviation: 6 Responses: 102
Question 2: What is your age?	18 to 27: 5 (4.9%) 28 to 37: 49 (48.04%) 38 to 47: 39 (38.24%) 48 to 57: 9 (8.82%) 58 to 67: 0 (0%) 68 or above: 0 (0%) Standard deviation: 19.55 Responses: 102
Question 3: What is your education background?	Not yet a degree-holder: 20 (19.8%) Finished University Undergraduate Degree study: 64 (63.37%) Finished Master Degree study: 17 (16.83%) Finished Ph.D. Degree study (or equivalent): 0 (0%) Standard deviation: 23.65 Responses: 101
Question 4: What is your perceived own social class?	Upper class: 1 (0.98%) Middle class: 49 (48.04%) Lower class: 43 (42.16%) Not applicable/ no idea: 9 (8.82%) Standard deviation: 20.8 Responses: 102
Question 5: Do you feel that you are knowledgeable in mobile apps usage?	Yes, very much so: 17 (16.67%) Yes, I have this feeling mildly: 70 (68.63%) No, I do not feel this way: 13 (12.75%) No idea/ no comment: 2 (1.96%) Standard deviation: 26.27 Responses: 102
Question 6: Do you feel that you are familiar with the topic of the sharing economy?	Yes, very much so: 9 (8.82%) Yes, I have this feeling mildly: 31 (30.39%) No, I do not feel this way: 45 (44.12%) No idea/ no comment: 17 (16.67%) Standard deviation: 13.74 Responses: 102
Question 7: Do you feel that the topic of sharing economy is controversial?	Yes, very much so: 8 (7.92%) Yes, I have this feeling mildly: 40 (39.6%) No, I do not feel this way: 26 (25.74%) No idea/ no comment: 27 (26.73%) Standard deviation: 11.39

	Responses: 101
Question 8: Do you feel that the sharing economy will grow in size, e.g., total sales turnover, by at least 20% p.a. in the coming 2 years?	Yes, very much so: 10 (9.8%) Yes, I have this feeling mildly: 30 (29.41%) No, I do not feel this way: 40 (39.22%) No idea/ no comment: 22 (21.57%) Standard deviation: 10.99 Responses: 102
Question 9: Do you feel that, on the whole, the sharing economy is able to improve the quality of life of Hong Kong?	Yes, very much so: 18 (17.65%) Yes, I have this feeling mildly: 37 (36.27%) No, I do not feel this way: 31 (30.39%) No idea/ no comment: 16 (15.69%) Standard deviation: 8.79 Responses: 102
Question 10: Do you feel that the sharing economy is able to promote entrepreneurship spirit in Hong Kong?	Yes, very much so: 14 (13.73%) Yes, I have this feeling mildly: 34 (33.33%) No, I do not feel this way: 33 (32.35%) No idea/ no comment: 21 (20.59%) Standard deviation: 8.38 Responses: 102
Question 11: Do you feel that, on the whole, the sharing economy is able to reduce unemployment rate in Hong Kong substantially?	Yes, very much so: 9 (8.82%) Yes, I have this feeling mildly: 37 (36.27%) No, I do not feel this way: 42 (41.18%) No idea/ no comment: 14 (13.73%) Standard deviation: 14.22 Responses: 102
Question 12: Have you been participating in the sharing economy as a consumer, e.g., Uber and Airbnb?	Yes: 29 (29%) No: 58 (58%) No idea/ no comments: 13 (13%) Standard deviation: 18.62 Responses: 100
Question 13: Have you been participating in the sharing economy as a seller?	Yes: 10 (9.8%) No: 80 (78.43%) No idea/ no comments: 12 (11.76%) Standard deviation: 32.54 Responses: 102
Question 14: Do you feel that you will participate in the sharing economy in the coming 2 years as a consumer?	Yes, very much so: 21 (20.59%) Yes, I have this feeling mildly: 37 (36.27%) No, I do not feel this way: 22 (21.57%) No idea/ no comment: 22 (21.57%) Standard deviation: 6.65 Responses: 102
Question 15: Do you feel that you will participate in the sharing economy in the coming 2 years as a seller?	Yes, very much so: 4 (3.92%) Yes, I have this feeling mildly: 14 (13.73%) No, I do not feel this way: 61 (59.8%) No idea/ no comment: 23 (22.55%) Standard deviation: 21.57 Responses: 102
Question 16: Do you feel that	Yes, very much so: 29 (29.29%)

the Hong Kong government needs to do more to promote the sharing economy in Hong Kong?	Yes, I have this feeling mildly: 44 (44.44%) No, I do not feel this way: 11 (11.11%) No idea/ no comment: 15 (15.15%) Standard deviation: 12.97 Responses: 99
Question 17: Do you feel that the Hong Kong's present sharing economy is under-developed as a modern city?	Yes, very much so: 30 (29.41%) Yes, I have this feeling mildly: 45 (44.12%) No, I do not feel this way: 14 (13.73%) No idea/ no comment: 13 (12.75%) Standard deviation: 13.12 Responses: 102
Question 18: Do you feel that you are interested in learning more about the subject of the sharing economy?	Yes, very much so: 30 (29.41%) Yes, I have this feeling mildly: 50 (49.02%) No, I do not feel this way: 12 (11.76%) No idea/ no comment: 10 (9.8%) Standard deviation: 16.15 Responses: 102

Appendix 2: Excel report on the multiple regression formula

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.639374708
R Square	0.408800018
Adjusted R Square	0.339826686
Standard Error	0.491478953
Observations	68

ANOVA

	df	*SS*	*MS*	*F*
Regression	7	10.0216122	1.43165889	5.926928716
Residual	60	14.49309368	0.24155156	
Total	67	24.51470588		

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	0.428856837	0.525632133	0.81588779	0.417791629
Gender	-0.138413473	0.129013736	-1.0728584	0.287630802
Age group	0.006117282	0.009231394	0.6626607	0.510085528
Education background	0.063403649	0.102366468	0.61937908	0.53801157
Self-perceived social class	0.112304686	0.124141778	0.90464861	0.36926978
Knowledgeable in apps usage	0.085603556	0.131695406	0.65001171	0.518165752
Familiarity with the sharing economy	0.069254147	0.095789296	0.72298419	0.472498587
Govt to promote the sharing economy	0.556505358	0.095201749	5.84553711	2.22204E-07