Vehicle-Sharing Usage:

Factors That Influence Student Use of *Zipcar*

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I. Introduction

Car sharing is a business that is growing among millennials. Zipcar is a car-sharing company that provides car rental services to its members. Zipcar would like to increase its usage among students in the United States. Despite different factors that we found in various literature, our team would like to raise these research questions: What are the factors that predict college students' usage of Zipcar? We will explain our analysis in order to provide recommendations for Zipcar to increase its awareness and usage among college students.

II. Literature Reviews

Scholarly Journals

Car sharing is getting popular among urban areas of North America in recent years because it brings citizens many conveniences. Martin and Lidicker (2010) set out to do "a "before-and-after" analytical design that focused on understanding car sharing's impact on vehicle holdings among member households and the aggregate vehicle population" (p. 1).

Martin and Lidcker (2010) thus did an online survey of North America car sharing members in 2008. They asked respondents about their travel lifestyle before they joined carsharing. To evaluate vehicle holdings, Martin and Lidicker (2010) collected "the make, model and year of each household member before joining carsharing and at the time of the survey" (p. 4). They also collected information about model of the carsharing vehicle that consumers often drove.

In the survey's results, there were some nominal distinctions among different countries, but Martin and Lidicker (2010) found that carsharing members share very similar demographic

distributions in the U.S. and Canada. Martin and Lidicker (2010) also "found that carsharing significantly lowered the total number of vehicles held by members", which meant carsharing members reduced their vehicles holdings to a degree (p. 7). "Carsharing has taken between 9000 to 130000 vehicles off the road", and Martin and Lidicker (2010) found that Vehicle holding population showed a dramatic shift towards a careless lifestyle (p. 1).

In Efthymiou and Antoniou (2016)'s article, car-sharing service are preferred by environmentally conscious commuters (Efthymiou & Antoniou, 2016), while another research article mentioned that "[…] women [who] take stronger standpoints on ethical, environmental and prosocial behavior" are more likely to use car-sharing or carpool (Neoh, Chipulu, & Marshall, 2015, p. 441). This article also mirrored that "[...] female who are in full-time employment with a fixed work schedule and has vehicle ownership (Neoh et. al., 2015, p. 440) are the biggest target group for carsharing service. Moreover, according to Efthymiou and Antoniou, "[…] car-sharing constitutes a very good choice for mid-to-low income households, as it combines the positive characteristics of a private transportation mode, without the unbearable purchase and maintenance costs" (Efthymiou & Antoniou, 2016, p. 148). What's more, current travel patterns is one of the key factors for people when consider car sharing service. According to the article, people who are more satisfied with their current travel patterns are less likely to use car sharing (Efthymiou & Antoniou, 2016).

Barnes and Mattsson (2017) used a model and an online survey to study collaborative consumption. The primary research question is to find out the factors that can "explain a consumer's' intention to share and to recommend in the collaborative consumption context" (Barnes & Mattsson, 2017, p. 282). The researchers expected the potential factors in

collaborative consumption include economic benefits, environmental benefits and green behavior, social benefits and sharing behavior, enjoyment and sense of belonging, social influence, and trust and structural assurance. The researchers designed an online survey to collect data on a car-sharing website; participants were 115 drivers and passengers of the car sharing service MinBilDinBil.

Researchers found that enjoyment and perceived usefulness are two major factors that promote consumers' intention to rent cars. Also, consumers thought they received economic, social, and environmental benefits from using the car sharing service, and people's sharing and green behaviors affect them to use car sharing. The car sharing service "MinBilDinBil act as a broker in the relationship between owners and renters," which provided strong assurances for members (Barnes & Mattsson, 2017, p. 288). Researchers also found that using word-of-mouth to found a loyal followers community is a tendency for car sharing services.

Access-based consumption is becoming more and more popular now because it doesn't require ownership transaction. Bardhi and Eckhardt (2012) set out to "examine the nature of access as it contrasted the ownership and sharing" (p. 881). They wanted to use an interpretive study of Zipcar consumer to examine access-based consumption.

Bardhi and Eckhardt (2012) first conducted 40 semi structured interviews with Zipcar users in Boston since Boston had many Zipcar users. Through interviews, they summarized every respondent's informant demographic characteristics, and asked their ages, occupations, ownerships of cars, marriages and incomes. Bardhi and Eckhardt (2012) also checked for systematic difference between college students and office workers. Then they conducted data collection through nonparticipant observation of carsharing by riding in Zipcars with members in

order to better understand how consumer use Zipcars (Bardhi & Eckhardt, 2012). Next they conducted a hermeneutic analysis of the interview data to identify how access-based consumption was being enacted. Finally they analyzed company secondary data to examine how Zipcar is trying to promote the idea of carsharing. (Bardhi & Eckhardt, 2012).

In the results, Bardhi and Eckhardt (2012) found that there was not any systematic difference between college students and office workers. Through interviews, Bardhi and Eckhardt (2012) found that consumers usually didn't have senses of identification with the Zipcars, because they were clear that Zipcars were shared cars. Consumers were saying that they didn't care about the car. Bardhi and Eckhardt (2012) also found some consumers didn't like some aspects of Zipcars such as smoking because it raised a sense of contamination. Consumers would not incorporate the zipcar into the extended self such as personalizing the car seat because they knew it was temporarily used. Moreover, they found that Zipcar didn't build up a brand community; consumers didn't feel pride of using Zipcars. Instead they felt cheap and embarrassed (Bardhi & Eckhardt, 2012). On the other hand, they found some consumers liked Zipcars because they didn't care about cars' types. They wanted to use cars with the lowest price, and they thought Zipcars were convenient and environmentally friendly. Finally, Bardhi and Eckhardt (2012) found that carsharing could be a positive lifestyle in consumers' minds, which enabled consumers to participate in free lifestyles and try different cars.

In Neoh, Chipulu, and Marshall (2015)'s finding, the word "convenience" cannot be used as a valid factor due to "[…] unclear definition" in different studies (p. 441), and since "convenience" simply means "[…] a state of being able to do something without difficulty"; therefore, "[…] it can be perceived and understood differently depending on what action the

respondent has in mind" (p. 441). Additionally, whether if there is a reserved parking near potential users. On the other hand, one of the key findings of this article is that psychological motivations of car using is a vital influencer (Neoh et. al., 2015).

Kingham, Dickinson and Copsey (2001) conducted a research on employee's commuting behavior and their willingness to move out of their cars along with some determining factors. The survey was distributed among employees in two companies in the United Kingdom. Apart from the survey, the research team also incorporated two other employee transit surveys distributed in Hertfordshire. Kingdom, Dickinson and Copsey (2001) found out that "people are most interested in a reliable and convenient public transport service" (p. 5). In terms of car-sharing, it has a large potential market as around half of the population were reported to consider it (Kingham, Dickinson, & Copsey, 2010) Increase in fuel price as well as the convenience and reliance level of the car sharing service would help boost the usage.

Katzev (2003) studied the emerging car sharing business in three topics: The Adoption Process, Trip Behavior and mobility effects. The study involved survey method as well as drawing data from system database. The first study involved a survey method and the researcher found out that financial saving is a major impact and early customers of car sharing were " a highly educated, relatively affluent group of individuals who were primarily employed in professional occupations (Katzev, 2003, p. 71). The second study drew data from system database and found out that "the impact of both membership length and distance to the station on CSP trip usage depends critically on whether or not a member owned a personal vehicle" (Katzev, 2003, p. 76). It also introduced six negatives that reflects concerns of car-sharing experience:

> 1. The user has to plan his or her trip in advance, so in most cases spontaneity is lost. 2. The user has to remember, and take the time, to make a reservation. 3. The car is probably parked farther from the user's residence than his or her personal car would be. 4. The user has to leave the car clean, every time, even if he or she is in a hurry. 5. The user has to deal with some form of paperwork, personal identification numbers (PINs), lockboxes, etc. for every trip. 6. The user has to worry about getting the car back on time- another loss of spontaneity. (Katzev, 2003, p. 83)

Katez (2003) suggested that improvements could be made based on these six factors.

Shaheen, Mallery, and Kingsley (2012) conducted a research to collect data and analyze about "business models" (p. 74), "market opportunities" (p. 74), and "barriers to adoption and expansion" (p. 75). The study interviewed 34 experts in car sharing and car service fields. The interviews included semi-structured questionnaires and individuals responses about relevant topics. Researchers concluded four car sharing models. Shaheen, Mallery, and Kingsley (2012) said, "The potential to deploy personal vehicle sharing services in low- to mid-density areas may enable the incorporation of new member demographics" (p. 75). Insurance coverage and fear of sharing are two major barriers for developing car sharing.

According to all above studies and researches, predictors are listed as following.

III. Proposed Predictors

Dependent Variables:

- *Number of times someone has used one of the following car-sharing services:*
    - Zipcar
    - Enterprise
    - Getaround
- *Likelihood that someone will use one of the following car-sharing services in the future:*
    - Zipcar
    - Enterprise
    - Getaround

Environmental Factors:

- *Environmentally conscious commuters* (Efthymiou & Antoniou, 2016)

Psychological Factors:

- *Trust* (Barnes & Mattsson, 2017)
- *Sense of belongings* (Barnes & Mattsson, 2017)
- *Renting intention* (Barnes & Mattsson, 2017)
- *Perceived usefulness* (Barnes & Mattsson, 2017)

Social Factors:

- *Lifestyle* (Bardhi & Eckhardt, 2012)

Economic Factors:

- *Financial status* (Katzev, 2003)

Demographic:

- *Gender* (Neoh, et al., 2015)
- *Income* (Efthymiou & Antoniou, 2016)
- *Year in College* (Bardhi & Eckhardt, 2012)

***Other factors*:**

- *Car ownership* (Martin & Lidicker, 2010)
- *Current travel patterns (*Efthymiou & Antoniou, 2016)
- *Brand Community* (Bardhi & Eckhardt, 2012)

IV. Measures

Table 1: Constructs and Their Corresponding Measures

Car Sharing Constructs and their corresponding measures

	Much Worse	Worse	The Same	Better	Much Better
Financial Status: The feeling of an individual towards his or her own financial well-being. (Katzev, 2003)					
Compared to my financial position last year, my financial position this year is					
In comparison to most of my peers, I am financially					
Compared to my material possessions last year, my material possessions this year are generally					
In comparison to most of my peers' material possessions, my material possessions are					
In comparison to last year, my ability to spend money freely is					

Car Ownership

Do you own a car?

☐ Yes ☐ No

Current Travel Patterns

What is your current major transportation when going out for different activities?

☐ Self-own car ☐ Bike ☐ Bus/Subway ☐ Walk ☐ Uber/Lyft

Preference of Car Sharing Company

What is your preferred car sharing company?

☐ Zipcar ☐ Enterprise ☐ Getarround ☐ Others: _____

	Does not describe me at all	Doesn't really describe me	Can't really tell	Sometimes describes me	Definitely describes me
Sense of Belongings: A consumer feels part of the community on a car sharing company. (Barnes & Mattsson, 2017)					
I could identify with the other customers in the community of my preferred car sharing company.					
I am similar to the other customers in the community of my preferred car sharing company.					
The other customers are like me.					
The other customers come from a similar background to myself.					
Perceived Usefulness: A consumer's perceptions about convenience of sharing. (Barnes & Mattsson, 2017)					
The advantages of my preferred car sharing company outweigh the disadvantages.					
Overall, using my preferred car sharing company is advantageous.					
Renting Intention: A person's intention to use a certain car sharing service. (Barnes & Mattsson, 2017)					
I will consider use my preferred car sharing company in the future.					
It is very likely that I will use my preferred car sharing company in the future.					
I intent to use my preferred car sharing company in the future.					
Environmental consciousness: The level of significance an individual places on environmental issues (Efthymiou & Antoniou, 2016)					
It is important for me to help protect the environment by using my preferred car sharing company.					

I think a lot about ways to protect the environment by using my preferred car sharing company.					
Helping protect the environment is not at the top of my priority list when choosing car sharing company.					
I try to help protect environment.					
Brand Community: The interdependency between participating consumers, demonstrating a high level of consumer involvement. (Bardhi & Eckhardt, 2012)					
I do not feel a connection to other users of my preferred car sharing company.					
I ignore or resist my preferred car sharing company's efforts to build a community.					
I feel an obligation to contribute to the community.					
I do not feel the pride of being part my preferred car sharing company's community.					
Lifestyle: Car sharing emerges as a lifestyle facilitator since it enables consumers to participate in lifestyle spaces that they could not otherwise. (Bardhi & Eckhardt, 2012)					
My preferred car sharing company gives me lifestyle freedom.					
My preferred car sharing company allows me to experiment and try different or new car models.					
Car sharing has more freedom than owning a car according to lifestyle needs.					

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
Trust: A consumer trusts a brand is dependable. (Barnes & Mattsson, 2017)					
My preferred car sharing company is honest.					
My preferred car sharing company cares about its customers.					
My preferred car sharing company is predictable.					
My preferred car sharing company knows its market.					

Frequency of Car Sharing Usage – Dependent Variable

Approximately how often have you used car sharing service in the past month? *(If none, please write "0")*

# of Times
Zipcar _____
Enterprise _____
Getaround _____

Intention to Use Car Sharing in the Future – Dependent Variable

Finally, if you were to use a car sharing company tomorrow, how likely would you be to choose the following …

	Very Unlikely	Unlikely	Neutral	Likely	Very Likely
Zipcar					
Enterprise					
Getaround					

Year in College

Which of the following describes your current academic level:

☐ Freshman ☐ Sophomore ☐ Junior ☐ Senior ☐ Master's

Age

How old are you? _____

Gender

Are you male or female? ☐ Male ☐ Female

V. Instrument

Student Opinion Survey

We are conducting this study to learn about students opinions concerning a variety of current topics. Thank you for taking the time to complete our survey. Your response are anonymous.

Q1 Our first questions are about your financial status. For each of the following statements, please tell us how well it describes your situation by checking the box corresponding with your choice.

	Much Worse	Worse	The Same	Better	Much Better
(1) Compared to my financial position last year, my financial position this year is	○	○	○	○	○
(2) In comparison to most of my peers, I am financially	○	○	○	○	○
(3) Compared to my material possessions last year, my material possessions this year are generally	○	○	○	○	○
(4) In comparison to most of my peers' material possessions, my material possessions are	○	○	○	○	○
(5) In comparison to last year, my ability to spend money freely is	○	○	○	○	○

1

Q2 Do you own a car?

- ❍ Yes
- ❍ No

Q3 What is your preferred mode of transportation?

- ❍ Self-own Car
- ❍ Bus/Subway
- ❍ Walk
- ❍ Bike
- ❍ Uber/Lyft

Q4 What is your preferred car sharing company?

- ❍ Zipcar
- ❍ Enterprise
- ❍ Getaround
- ❍ Others _____

Q5 The next questions are about environment. For each of the following statements, please tell us how well it describes you by checking the box corresponding with your choice.

	Does not describe me at all	Doesn't really describe me	Can't really tell	Sometimes describe me	Definitely describes me
(1) It is important for me to help protect the environment by using my preferred car sharing company.	❍	❍	❍	❍	❍
(2) I think a lot about ways to protect the environment by using my preferred car sharing company.	❍	❍	❍	❍	❍
(3) Helping protect the environment is not at the top of my priority list when choosing car sharing company.	❍	❍	❍	❍	❍
(4) I try to help protect environment.	❍	❍	❍	❍	❍

Q6 Have you ever use car sharing service?

❍ Yes

❍ No

Condition: No Is Selected. Skip to Page 7.

Q7 Since you have experienced car sharing service before, please tell us about your experience. For each of the following statement, please tell us how well it describes you by checking the box corresponding with your choice.

	Does not describe me at all	Doesn't really describe me	Can't really tell	Sometimes describe me	Definitely describes me
(1) My preferred car sharing company gives me lifestyle freedom.	❍	❍	❍	❍	❍
(2) My preferred car sharing company allows me to experiment and try different or new car models.	❍	❍	❍	❍	❍
(3) Car sharing has more freedom than owning a car according to lifestyle needs.	❍	❍	❍	❍	❍
(4) I could identify with the other customers in the community of my preferred car sharing company.	❍	❍	❍	❍	❍
(5) I am similar to the other customers in the community of my preferred car sharing company.	❍	❍	❍	❍	❍
(6) The other customers are like me.	❍	❍	❍	❍	❍
(7) The other customers come from a	❍	❍	❍	❍	❍

similar background to myself.					
(8) I do not feel a connection to other users of my preferred car sharing company.	❍	❍	❍	❍	❍
(9) I ignore or resist my preferred car sharing company's efforts to build a community.	❍	❍	❍	❍	❍
(10) I feel an obligation to contribute to the community.	❍	❍	❍	❍	❍
(11) I do not feel the pride of being part my preferred car sharing company's community.	❍	❍	❍	❍	❍
(12) The advantages of my preferred car sharing company outweigh the disadvantages.	❍	❍	❍	❍	❍
(13) Overall, using my preferred car sharing company is advantageous.	❍	❍	❍	❍	❍

Q8 Again, please tell us how much you agree or disagree with each of the following statement by checking box corresponding with your choice.

	Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree
(1) My preferred car sharing company is honest.	❍	❍	❍	❍	❍
(2) My preferred car sharing company cares about its customers.	❍	❍	❍	❍	❍
(3) My preferred car sharing company is predictable.	❍	❍	❍	❍	❍
(4) My preferred car sharing company knows its market.	❍	❍	❍	❍	❍

Q12 Which of the following describe your current academic level:

- ❍ Freshmen
- ❍ Sophomore
- ❍ Junior
- ❍ Senior
- ❍ Master's

Q13 What is your age? _____

Q14 What is your gender?

- ❍ Male
- ❍ Female

That concludes our survey. Thank you for your time.

Q9 Now we would like to have you to think about the use of car sharing in the future. For the following statements, please tell us how well it describes you by checking the box corresponding with your choice.

	Does not describe me at all	Doesn't really describe me	Can't really tell	Sometimes describe me	Definitely describes me
(1) I will consider use my preferred car sharing company in the future.	❍	❍	❍	❍	❍
(2) It is very likely that I will use my preferred car sharing company in the future.	❍	❍	❍	❍	❍
(3) I intent to use my preferred car sharing company in the future.	❍	❍	❍	❍	❍

Q10 Approximately how often have you used car sharing service in the past month? (If none, please write "0")

❍ Zipcar _____

❍ Enterprise _____

❍ Getaround _____

Q11 Finally, if you were to use a car sharing company tomorrow, how likely would you be to choose the following ...

	Very unlikely	Unlikely	Neutral	Likely	Very likely
Zipcar	❍	❍	❍	❍	❍
Enterprise	❍	❍	❍	❍	❍
Getaround	❍	❍	❍	❍	❍

VI. Methodology

First, we established a research question based on our client's goal to heighten awareness of car-sharing business in the college and university student community. This allowed us to conduct a comprehensive literature review on students' preferences when choosing their car sharing company. Based on research previously done in this area, we generated a list of proposed predictors relevant to our research question. Using these predictors, we composed 40 questions with help of The Marketing Scales Handbook supplemented by ones of our own construction. We distributed these measures by survey to 100 randomly selected college students studying in Boston University, age ranging from 18 to 28 with 55 females, 25 males, and 20 unknown gender. After collecting this data, we coded each survey in order to enter the information into the SPSS system, reverse coding when appropriate. We then tested the measures for reliability using Cronbach's Alpha, as well as the relationship between the dependent and independent variables using Pearson's Coefficient of Correlation. Per Cronbach's Alpha, we removed questions that were not reliable enough to make appropriate recommendations. We generated six dependent variables at the beginning of the research; however, due to the lack of reliability, we came up with four independent variables at the end, which are "Approximately how often have you used car sharing service in the past month?", "If you were to used a car sharing company tomorrow, how likely would you be to choose Zipcar", "If you were to used a car sharing company tomorrow, how likely would you be to choose Enterprise", and "If you were to used a car sharing company tomorrow, how likely would you be to choose Getaround". When the analysis was complete, we generated a list of recommendations for Zipcar.

VII. Results

Analysis of Measures

After collecting the surveys, we finalized the data by reversing measures and adjusting questions to maximize reliability and calculated the correlation of each measurement with Cronbach's Alpha.

We first measured the construct *Financial Status*, and it gave us a excellent reliability of 0.859.

Sense of Belonging produced an excellent reliability of 0.844.

Perceived Usefulness produced an excellent reliability level of 0.831.

Renting Intention produced an excellent reliability level of 0.952.

Environmental Consciousness produced an excellent reliability of 0.852. The reliability was originally lower, so we removed two questions and only used "It is important for me to help protect the environment by using my preferred car sharing company" and "I think a lot about ways to protect the environment by using my preferred car sharing company."

Brand Community produced a moderate reliability level of 0.526. We found the correlation of *Brand Community* to be -0.124 that is small correlation, with the probability of 0.393. Thus, we conclude that we cannot use this variable to generalize a relationship.

Lifestyle produced a very good reliability level of 0.776.

Finally, *Trust* produced an excellent reliability level of 0.822.

Table 2: SPSS Output of Reliability

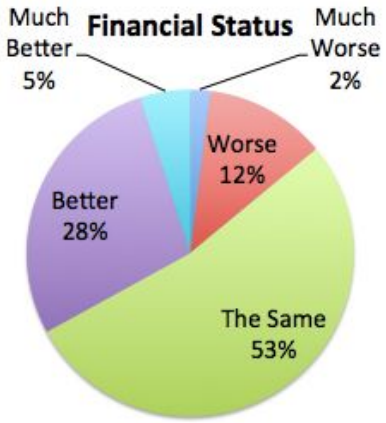
Construct	Cronbach's Alpha	Number of Items	Items Removed
Financial Status	0.859	5	N/A

Sense of Belonging	0.844	4	N/A
Perceived Usefulness	0.831	2	N/A
Renting Intention	0.952	3	N/A
Environmental Consciousness	0.852	4	2
Brand Community	0.526	4	N/A
Lifestyle	0.776	3	N/A
Trust	0.822	4	N/A

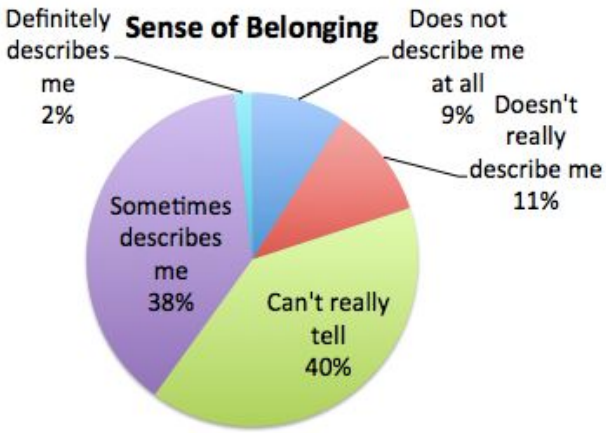
Analysis of Variation of Measures

All of our constructs including sense of belonging, perceived usefulness, renting intention, environmental consciousness, brand community, lifestyle and trust had an acceptable Cronbach's Alpha of 0.50 or higher. Individuals found these variables to be the most important factors that motivated them to use their preferred car sharing company.

Most questions on our survey were answer on a five-point scale. *Financial Status* had 2% of the sample that felt much worse toward this construct, 12% of the sample felt worse, 53% of the sample felt the same, 28% of the sample felt better, 5% of the sample felt much better. This indicates that 53% of the sample find their financial status almost the same as last year and also the same as their peers.

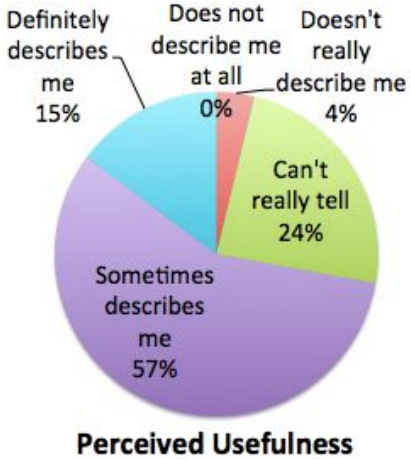


Sense of belonging had 9% of the sample that say "does not describe me at all" toward this construct, 11% of the sample choose "doesn't really describe me", 40%

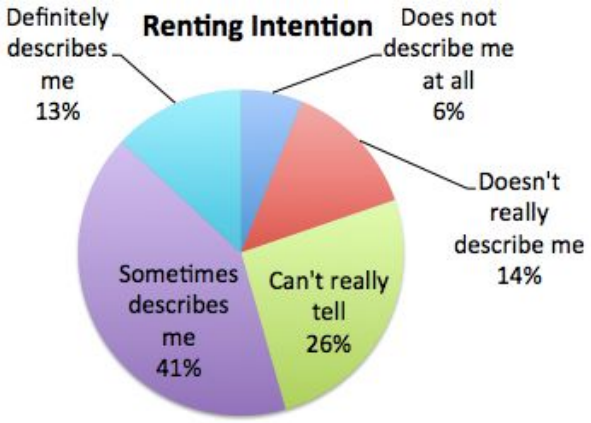


of the sample “can’t really tell” , 38% of the sample think it “sometimes describes me”, 2% of the sample think it “definitely describes me”. This indicates that 40% of the sample have a strong sense of belonging to community of their preferred car sharing company is almost twice as many people who have a low sense of belonging to community of their preferred car sharing company.

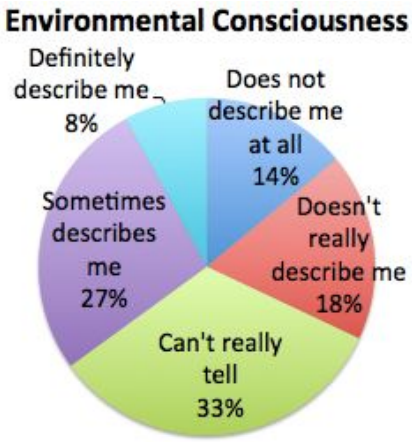
Perceived Usefulness had none of the sample that say “does not describe me at all” toward this construct, 4% of the sample choose “doesn’t really describe me”, 24% of the sample “can’t really tell”, 57% of the sample think it “sometimes describes me” 15% of the sample think it “definitely describe me” This indicates that 71% of the sample find sharing as provided by their preferred company to be convenient.



Renting intention had 6% of the sample say “does not describe me at all” toward this construct, 13% of the sample choose “doesn’t really describe me”, 26% of the sample “can’t really tell”, 41% of the sample think it “sometimes describes me”, 13% of the sample think it “definitely describe me”. This indicates that 54% of the sample have a strong intention to use their preferred car sharing company.

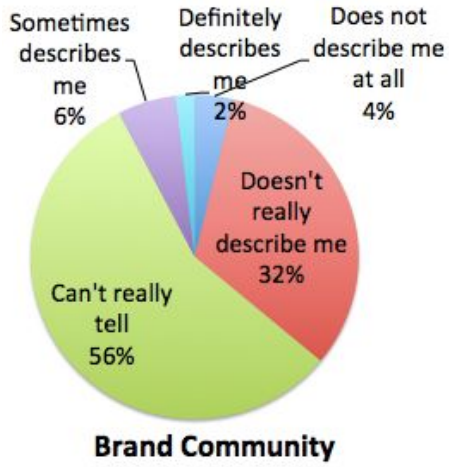


Environmental consciousness had 14% of the sample say “does not describe me at all” toward this construct, 18% of the sample choose “doesn’t really describe me”, 33% of the sample “can’t really tell”, 27% of the sample think it “sometimes describes me”, 8% of the sample think

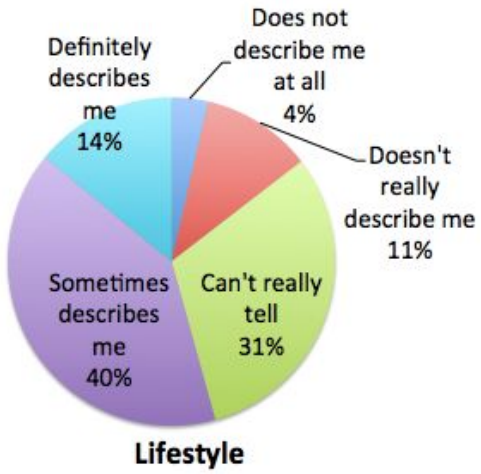


it “definitely describe me”. This indicates that 55% of the sample have a strong intention to use their preferred car sharing company.

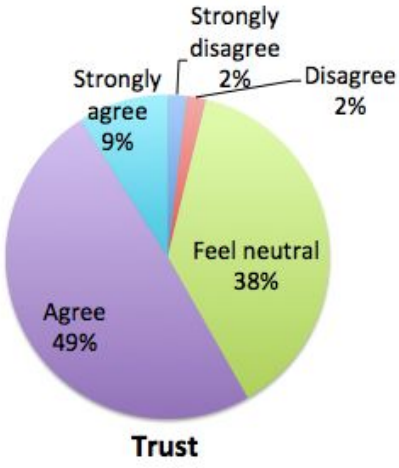
Brand community had 4% of the sample that say “does not describe me at all” toward this construct, 32% of the sample choose “doesn’t really describe me”, 56% of the sample “can’t really tell”, 6% of the sample think it “sometimes describes me”, 2% of the sample think it “definitely describes me”. This indicates that 36% of the sample have a low level of involvement in their preferred car sharing company is almost four times as many people who have a high level of involvement in their preferred car sharing company.



Lifestyle had 3.6% of the sample that say “does not describe me at all” toward this construct, 10.9% of the sample choose “doesn’t really describe me”, 31% of the sample “can’t really tell”, 40.1% of the sample think it “sometimes describes me”, 14.5% of the sample think it “definitely describes me”. This indicates that 55 % of the sample think car sharing enables them to participate in lifestyle spaces that they could not otherwise.



Trust had 2% of the sample feel “strongly disagree” toward this construct, 2% of the sample choose “disagree”, 38% of the sample choose “feel neutral”, 49% of the sample feel “agree”, and 9% of the sample choose “strongly agree”. This indicates that 58 % of the sample find their preferred car sharing company is dependable.



Correlations

Dependent Variable 1: The Previous Usage of Car Sharing Service

We used SPSS to measure the correlations between the previous usage of car sharing service and the following constructs. However, there was little to no correlation between the dependent variable and each constructs.

Table 3: Correlation Between the Previous Usage of Car Sharing Service and Constructs

Frequency of car sharing usage in the past month		
Construct	**r**	**p**
Financial Status	-0.003	0.977
Sense of Belonging	-0.062	0.667
Perceived Usefulness	-0.097	0.504
Renting Intention	-0.138	0.223
Environmental Consciousness	-0.037	0.745
Brand Community	0.188	0.191
Lifestyle	-0.242	0.087
Trust	-0.110	0.451

Dependent Variable 2: The Usage of Zipcar in the Future

We used SPSS to measure the correlations between the future usage of Zipcar and each constructs. With regards to *Financial Status* and *Sense of Belonging*, there was little to no correlation between the dependent variable and each construct. For construct *Perceived Usefulness*, we found that there was a relationship between the correlation coefficient (r) of 0.330 that is moderate and the probability (p) of 0.019. For *Renting Intention*, there was a

relationship between the correlation coefficient (r) of 0.622 that is a very strong strength and the probability (p) of 0.000. For *Environmental Consciousness* and *Brand Community*, there was little to no correlation between the dependent variable and each construct. For *Lifestyle*, we found that there was a relationship between the correlation coefficient (r) of 0.369 that is a moderate strength and the probability (p) of 0.008. For *Trust*, we found that there was a relationship between the correlation coefficient (r) of 0.561 that is strong and the probability (p) of 0.000.

Table 4: Correlation Between the Usage of Zipcar in the Future and Constructs

The Usage of Zipcar in the Future		
Construct	**r**	**p**
Financial Status	0.037	0.746
Sense of Belonging	0.049	0.735
Perceived Usefulness	**0.330**	**0.019**
Renting Intention	**0.622**	**0.000**
Environmental Consciousness	0.200	0.075
Brand Community	-0.124	0.393
Lifestyle	**0.369**	**0.008**
Trust	**0.561**	**0.000**

Dependent Variable 3: The Usage of Enterprise in the future

We used SPSS to measure the correlations between the future usage of Enterprise and each constructs. With regards to *Financial Status, Sense of Belonging,* and *Perceived Usefulness*, there was little to no correlation between the dependent variable and each construct. For *Renting*

Intention, there was a relationship between the correlation coefficient (r) of 0.303 that is moderate and the probability (p) of 0.006. For *Environmental Consciousness*, we found that there was a relationship between the correlation coefficient (r) of 0.347 that is a moderate strength and the probability (p) of 0.002. For *Brand Community, Lifestyle,* and *Trust*, there was little to no correlation between the dependent variable and each construct.

Table 5: Correlation Between the Usage of Enterprise in the Future and Constructs

The Usage of Enterprise in the Future		
Construct	**r**	**p**
Financial Status	0.074	0.513
Sense of Belonging	-0.047	0.746
Perceived Usefulness	0.033	0.821
Renting Intention	**0.303**	**0.006**
Environmental Consciousness	**0.347**	**0.002**
Brand Community	0.259	0.069
Lifestyle	-0.036	0.804
Trust	-0.008	0.957

Dependent Variable 4: The Usage of Getaround in the future

We used SPSS to measure the correlations between the future usage of Getaround and each constructs. With regards to *Financial Status, Sense of Belonging, Perceived Usefulness,* and *Renting Intention*, there was little to no correlation between the dependent variable and each construct. For construct *Environmental Consciousness*, we found that there was a relationship between the correlation coefficient (r) of 0.315 that is moderate and the probability (p) of 0.004.

For *Brand Community, Lifestyle,* and *Trust*, there was little to no correlation between the dependent variable and each construct.

Table 6: Correlation Between the Usage of Getaround in the Future and Constructs

The Usage of Getaround in the Future		
Construct	**r**	**p**
Financial Status	0.037	0.746
Sense of Belonging	0.029	0.838
Perceived Usefulness	0.027	0.851
Renting Intention	0.109	0.335
Environmental Consciousness	**0.315**	**0.004**
Brand Community	0.205	0.154
Lifestyle	0.220	0.120
Trust	0.015	0.917

VIII. Discussion

According to our survey result, every participant is college student, which make the survey result more reliable since our research topic targets on all the university students in the United States. At the beginning of our research, we listed eight factors that might cause college students to choose a specific car sharing company; however, after analyzing the survey, we noticed that there are only four factors that are vital to our client, and they are *Perceived Usefulness*, *Renting Intention*, *Trust*, and *Lifestyle*.

We found that the majority of respondents felt positively towards the construct *Perceived Usefulness*. This indicates a high level of comfort that customers feel convenient of using preferred car sharing company. This is consistent with Barnes and Mattsson (2017), where they conclude usefulness can be defined as a consumer's feeling about convenience of a certain car sharing company.

Findings from *Trust* were also important to car sharing consumers. This is consistent with Barnes and Mattsson (2017), where they found that most consumers find their preferred car sharing company is dependable. This indicates a high level of comfort with trusting the preferred car sharing company.

Renting Intention showed high positivity of respondents. This is consistent with Barnes and Mattsson (2017) who indicated that consumers have a strong intention to use their preferred car sharing company.

Lifestyle was also important to respondents. This is consistent with Bardhi and Eckhardt (2012)'s findings that Lifestyle is every important to consumers because car sharing emerges as a lifestyle facilitator and enables consumers to participate in lifestyle spaces that they could not otherwise.

Summary

The goal of this study is the usage of vehicle sharing by college students aged from 18. We sent out survey to students to find out their car sharing service preferences and habits in order to determine what drives their decision to use a particular car sharing company over another. We found several factors that affect choice of car sharing service.

While further research is needed with respect to the factors affecting choice of travel website, our study revealed that Perceived Usefulness had the largest effect on a person's likelihood to choose a particular car sharing company. In other words, if a customer finds a particular car sharing company that is useful, there is a greater chance that he/she will use that car sharing company in the future.

IX. Conclusion and Recommendations

Recommendations

Based on above research we have conducted, our team come up with following recommendations for our client Zipcar. We found that when choosing their preferred car sharing brand (Zipcar), customers care about these four significant constructs: *Renting Intention*, *Trust, Lifestyle* and *Perceived Usefulness*.

Our first suggestion is dispensing Zipcar promo code or free first time cards at college campuses, especially around the orientation period or holidays. According to *Renting Intention,* we see that consumer's intention to use Zipcar largely affects the usage. When one car sharing company is preferred, it is very likely that people will consider using or actually use it in the future. Our research shows that Zipcar has a lot of potential customers and should thus provide more opportunities for students to experience the service. Promotion code and free try will help new students including foreign students recognizing Zipcar brand as well as letting them experience the service. Meanwhile, college students will probably use more car-rental service around holiday time and Zipcar certainly can not let go of this business opportunity.

The second suggestion is setting up internal evaluation system underlying the value including honesty, care for customers (students), being predictable and knowing its market. Meanwhile, Zipcar should also promote this system and let customers know. This suggestion is based on the construct *Trust*. This construct means being a dependable brand and measurements include previous value mentioned. Zipcar should try to achieve these standard itself first and then let consumers know. In this way, college students will increase their usages as they see standard they care the most has been achieved.

The third suggestion is providing more opportunities for college students to experiment and try different or new car models. The construct *Lifestyle* shows that college students cares about how their preferred car sharing company gives their lifestyle freedom, allowing them to try various car models. The most significant reason why college students choose car-sharing service is that it provides more freedom than owning a car lifestyle does. Freedom is the concept that Zipcar should keep in their mind when they make any changes or improvements.

The fourth suggestion regards convenience of using Zipcar. In our research, the corresponding construct is *Perceived Usefulness*. This construct entails a consumer's perceptions about convenience of sharing. According to this construct, we think that Zipcar should have more cars available at each station as well as more stations around college campuses and popular student apartments. Also, Zipcar should make it easier for customers to return cars at different locations and probably decrease the fee applied. Making the service more convenient will eventually help promote the usage of Zipcar.

X. References

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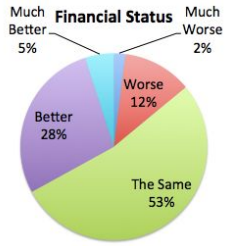
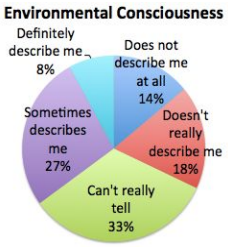
APPENDICES

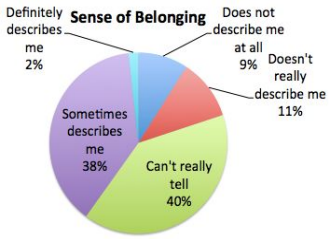
Appendix A: SPSS Output of Reliability

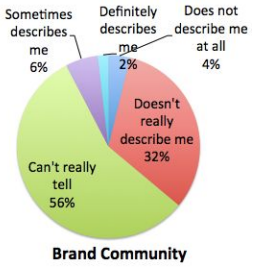
Construct	Cronbach's Alpha	Number of Items	Items Removed
Financial Status	0.859	5	N/A
Sense of Belonging	0.844	4	N/A
Usefulness	0.831	2	N/A
Renting Intention	0.952	3	N/A
Environmental Consciousness	0.852	4	2
Brand Community	0.526	4	N/A
Lifestyle	0.776	3	N/A
Trust	0.822	4	N/A

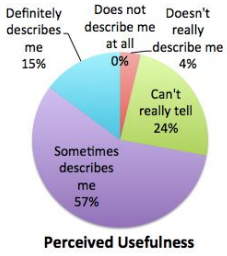
Appendix B: Output of Variation in Multi-Item Measures & Single-Item Measures

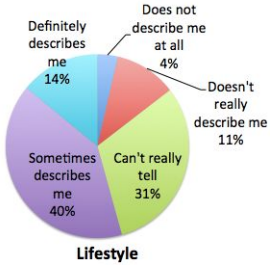


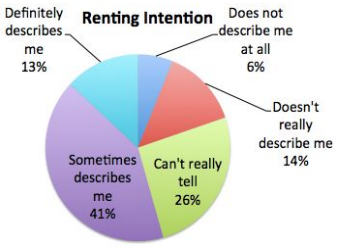


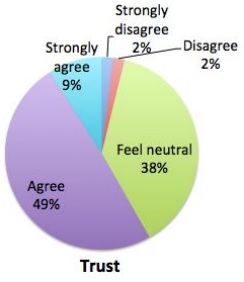












Appendix C: SPSS Output for Co-Variation of Single and Multi-Item Measures

Frequency of car sharing usage in the past month		
Construct	r	p
Financial Status	-0.003	0.977
Sense of Belonging	-0.062	0.667
Perceived Usefulness	-0.097	0.504
Renting Intention	-0.138	0.223
Environmental Consciousness	-0.037	0.745
Brand Community	0.188	0.191
Lifestyle	-0.242	0.087
Trust	-0.110	0.451

The Usage of Zipcar in the Future		
Construct	r	p
Financial Status	0.037	0.746
Sense of Belonging	0.049	0.735
Perceived Usefulness	0.330	0.019
Renting Intention	0.622	0.000
Environmental Consciousness	0.200	0.075
Brand Community	-0.124	0.393
Lifestyle	0.369	0.008
Trust	0.561	0.000

The Usage of Enterprise in the Future		
Construct	r	p

Financial Status	0.074	0.513
Sense of Belonging	-0.047	0.746
Perceived Usefulness	0.033	0.821
Renting Intention	0.303	0.006
Environmental Consciousness	0.347	0.002
Brand Community	0.259	0.069
Lifestyle	-0.036	0.804
Trust	-0.008	0.957

The Usage of Getaround in the Future		
Construct	r	p
Financial Status	0.037	0.746
Sense of Belonging	0.029	0.838
Perceived Usefulness	0.027	0.851
Renting Intention	0.109	0.335
Environmental Consciousness	0.315	0.004
Brand Community	0.205	0.154
Lifestyle	0.220	0.120
Trust	0.015	0.917