Dataset on the green consumption behaviour amongst Malaysian consumers

Noor Aswani Mohd Ghani¹, Farrah Dina Yusop²,*, Yusniza Kamarulzaman³

¹Institute for Advanced Studies, Universiti Malaya (UM), Malaysia
²Faculty of Education, Universiti Malaya (UM), Malaysia
³Faculty of Business and Accountancy, Universiti Malaya (UM), Malaysia

This dataset contains information of 375 respondents on green consumption behaviour. The questionnaire was developed using Theory of Planned Behaviour as the foundation. The variables available in the dataset are Environmental Concern (EC), Social Influence (SI), Perceived behavioural control (PBC), Consumer novelty seeking (CNS) and Green consumption behaviour (GC). In addition to the variables related to green consumption, the dataset also includes demographic and media preference information of the respondents. The data was collected via self-administered questionnaire in seven major cities in Klang Valley, namely Shah Alam, Bangsar, Petaling Jaya, Subang Jaya, Puchong, Serdang and Putrajaya. The dataset can have an important role for research in consumer behaviour towards developing green consumers.

© 2020 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/)
Specifications Table

| Subject | Marketing |
|---------|-----------|
| Specific subject area | Green behaviour |
| Type of data | Table |
| How data were acquired | The data was acquired using a 36 items self-administered survey of green consumption behaviour including additional 14 items of demographic and media preference questions. |
| Data format | Raw, analyzed |
| Parameters for data collection | The questionnaire includes: 1. Demographic information such as age, gender, education level, occupation, ethnicity, marital status, personal income, number of household and work category (9 items) 2. Media consumption preference (5 items) 3. Environmental concern (6 items) 4. Social influence (4 items) 5. Perceived behavioural control (5 items) 6. Consumer Novelty seeking (8 items) 7. Green consumption behaviour (13 items) |
| Description of data collection | The data was collected using a self-administered questionnaire distributed via face-to-face in high population areas in Kuala Lumpur, Petaling and Ulu Langat urban centres. The data collection took around 3 weeks to complete. A total of 430 questionnaires were distributed. However, after outliers were removed, only 375 were deemed usable for analysis. |
| Data source location | City: Shah Alam, Bangsar, Petaling Jaya, Subang Jaya, Puchong, Serdang and Putrajaya. Country: Malaysia |
| Data accessibility | Repository name: Mendeley Data Data identification number: Direct URL to data: [https://data.mendeley.com/submissions/ees/edit/r5tfv3pp8k?submission_id=DIB_46952&token=d217d726-718b-417a-9d6c-8941fe29687f](https://data.mendeley.com/submissions/ees/edit/r5tfv3pp8k?submission_id=DIB_46952&token=d217d726-718b-417a-9d6c-8941fe29687f) |

Value of the Data

- The dataset provides insights into the driving factors that influence green consumption behaviour among public.
- Data in this article will enable policy makers to make informed decision in relation to developing an action plan or policies that can entice consumers in general to partake in eco-friendly consumption.
- The dataset can be used by other researchers to compare with other data acquired from similar studies from other geographically different locations or regions.

1. Data Description

The dataset contains questions from five constructs of variables: Environmental concern (EC), Social influence (SI), Perceived behavioural control (PBC), Consumer novelty seeking (CNS), Green consumption behavior (GC). Definitions of each variable and references to the instrument are provided in Table 1.

A total of 50 items were listed in the questionnaire with 36 items related to green consumption behaviour and 14 items related to demographics and media preference. The questionnaire was distributed to individuals aged 18 years and above, because these groups are able to make consumption decision independent from their parents [1]. A total of 430 participants responded but only 375 were relevant for further analyses after outliers were removed.
The questionnaire and SPSS codebook are provided as a supplementary file. The questionnaire was adapted from various studies incorporating concept of Consumer Innovativeness with Theory of Planned Behaviour as the basis of the research [2]. A five-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Neither agree or disagree, 4=Agree, 5=Strongly Agree) was employed as it was found to improve respondents’ response quality and reduce fatigue while also highlights the different level in a variable [3,4]. The SI and PBC consist of four items respectively adapted from several studies [5–7]. The EC variable adapted six items from [8] and [9]. From the Consumer Innovativeness concept [10], Consumer Novelty seeking adapts eight items. Lastly the Green Consumption behaviour uses thirteen items from [9] and [11]. Additional information on media consumption preference were also collected. Skewness and Kurtosis values were computed to assess normality. Convergent validity was carried out using factor loading, Average Variance Extracted (AVE), and Composite Reliability (CR) and discriminant validity of the instruments are established by comparing the square root of all Average Variances Extracted.

2. Experimental design, materials, and methods

The data was collected through two sampling methods. The first method was using cluster sampling where the sampling was divided into major residential areas with the highest population density to gather random sample data [12]. Two areas were identified: (1) high populated areas which were Kuala Lumpur, Petaling and Ulu Langat; and (2) main urban areas namely Bangsar, Shah Alam, Petaling Jaya, Subang Jaya, Serdang, Puchong, and Putrajaya.

Once the location was determined, a non-probability sampling method was initiated through mall intercept method where further snowball sampling was applied. The data was analysed using SPSS software. Initial data analysis was conducted using descriptive analysis to summarize overall respondents’ demographic profiles. Then a reliability test was conducted to measure the instrument’s reliability followed by factor analysis as presented in Table 2. Pearson’s correlation analysis was then applied to examine the bivariate relationship amongst the variables. Finally, a regression analysis was executed to identify the relationship between the independent and dependent materials and to recognize the strongest factor in influencing the green consumption behaviour adaption.

2.1. Reliability, normality, convergent validity and discriminant validity

The reliability of the variables was between 0.795 and 0.922, which were deemed acceptable [13]. The data normality was calculated (Table 3). Convergent validity was considered established as the values of Average Variance Extracted (AVE) is greater than 0.5 and lesser than Composite
Table 2
Loadings of items

| Variable                        | Items | Before removal of item EC5 and EC6 | After removal of item EC5 and EC6 |
|---------------------------------|-------|------------------------------------|-----------------------------------|
| Environmental concern           | EC3   | 0.694                              | 0.825                             |
|                                 | EC1   | 0.680                              | 0.775                             |
|                                 | EC4   | 0.698                              | 0.763                             |
|                                 | EC2   | 0.732                              | 0.682                             |
|                                 | EC5   | 0.735                              | removed                           |
|                                 | EC6   | 0.646                              | removed                           |
| Social Influence                | SI2   | −0.850                             | −0.845                            |
|                                 | SI4   | −0.781                             | −0.771                            |
|                                 | SI1   | −0.774                             | −0.771                            |
|                                 | SI3   | −0.771                             | −0.768                            |
| Perceived Behavioural Control   | PBC3  | −0.885                             | 0.882                             |
|                                 | PBC4  | −0.841                             | 0.852                             |
|                                 | PBC2  | −0.702                             | 0.714                             |
|                                 | PBC1  | −0.680                             | 0.670                             |
|                                 | PBC5  | −0.616                             | 0.636                             |
| Consumer Novelty Seeking        | CNS4  | 0.862                              | 0.879                             |
|                                 | CNS6  | 0.832                              | 0.846                             |
|                                 | CNS5  | 0.810                              | 0.823                             |
|                                 | CNS1  | 0.775                              | 0.791                             |
|                                 | CNS7  | 0.749                              | 0.791                             |
|                                 | CNS8  | 0.730                              | 0.762                             |
|                                 | CNS2  | 0.752                              | 0.762                             |
|                                 | CNS3  | 0.650                              | 0.642                             |
| Green Consumption Behaviour      | GC13  | 0.741                              | 0.741                             |
|                                 | GC12  | 0.739                              | 0.739                             |
|                                 | GC10  | 0.727                              | 0.727                             |
|                                 | GC8   | 0.719                              | 0.719                             |
|                                 | GC7   | 0.709                              | 0.709                             |
|                                 | GC11  | 0.704                              | 0.704                             |
|                                 | GC9   | 0.679                              | 0.679                             |
|                                 | GC3   | 0.674                              | 0.674                             |
|                                 | GC6   | 0.670                              | 0.670                             |
|                                 | GC4   | 0.662                              | 0.662                             |
|                                 | GC2   | 0.558                              | 0.558                             |
|                                 | GC1   | 0.533                              | 0.533                             |
|                                 | GC5   | 0.532                              | 0.532                             |

Table 3
Values of Skewness and Kurtosis of all items

| Item   | Skewness | Kurtosis | Item   | Skewness | Kurtosis | Item   | Skewness | Kurtosis | Item   | Skewness | Kurtosis |
|--------|----------|----------|--------|----------|----------|--------|----------|----------|--------|----------|----------|
| EC1    | −.466    | .041     | PBC3   | −.462    | .357     | GC2    | −.707    | .596     |        |          |          |
| EC2    | −.734    | .386     | PBC4   | −.442    | .540     | GC3    | −.517    | .212     |        |          |          |
| EC3    | −.674    | .653     | PBC5   | −.606    | .999     | GC4    | −.552    | .091     |        |          |          |
| EC4    | −.628    | .684     | CNS1   | −.318    | −.429    | GC5    | −.664    | .212     |        |          |          |
| EC5    | −.581    | −.158    | CNS2   | −.469    | −.179    | GC6    | −.097    | −.405    |        |          |          |
| EC6    | −.686    | .381     | CNS3   | −.733    | .693     | GC7    | −.131    | −.411    |        |          |          |
| SI1    | −.445    | .129     | CNS4   | −.473    | .002     | GC8    | −.512    | −.057    |        |          |          |
| SI2    | −.377    | .233     | CNS5   | −.365    | −.127    | GC9    | −.495    | .070     |        |          |          |
| SI3    | −.318    | −.201    | CNS6   | −.369    | −.209    | GC10   | −.418    | −.265    |        |          |          |
| SI4    | −.350    | .364     | CNS7   | −.158    | −.456    | GC11   | −.720    | .388     |        |          |          |
| PBC1   | −.642    | .241     | CNS8   | −.400    | −.322    | GC12   | −.754    | .306     |        |          |          |
| PBC2   | −.237    | .046     | GC1    | −.739    | .596     | GC13   | −.495    | −.153    |        |          |          |
Reliability (CR). Note that although Green consumption (GC) AVE is less than 0.5, the convergent validity of the construct was acceptable as long as the CR was higher than 0.60 [14] as summarized in Table 4. Further, values of square root AVE were higher than the correlation value between items, supporting the discriminant validity of the items as showed in Table 5.

Ethics statement

This study confirms that consent was obtained from individuals who participated in the survey.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships which have, or could be perceived to have, influenced the work reported in this article.

Acknowledgements

This study is partially supported by University of Malaya research grants (no. FP024-2016 and IIRG006B-19SAH).

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.dib.2020.106302.
References

[1] E. Rahbar, N.A. Wahid, Investigation of green marketing tools ‘ effect on consumers ‘ purchase behavior, 12 (2011) 73–83. https://doi.org/10.1108/1751563111114877.

[2] I. Ajzen, The theory of planned behavior, Organ. Behav. Hum. Decis. Process 50 (1991) 179–211 https://doi.org/10.1016/0749-5978(91)90020-T.

[3] S.B. Sachdev, H.V Verma, Relative importance of service quality dimensions: a multisectoral study, J. Serv. Res 4 (2004).

[4] U. Sekaran, Research Methods for Business: A Skill Building Approach, Fourth edition, Jonh Willey & Sons, New York, 2003.

[5] P. Sparks, R. Shepherd, Self-identity and the theory of planned behavior: Assesing the role of identification with “green consumerism”, Soc. Psychol. Q (1992) 388–399.

[6] K.S. Fielding, R. Mcdonald, W.R. Louis, Theory of planned behaviour, identity and intentions to engage in environmental activism, 28 (2008) 318–326. https://doi.org/10.1016/j.jenvp.2008.03.003.

[7] M. Van Birgelen, J. Semeijn, M. Keicher, Packaging and proenvironmental consumption behavior: investigating purchase and disposal decisions for beverages, Environ. Behav 41 (2009) 125–146.

[8] M. Tonglet, P.S. Phillips, A.D. Read, Using the Theory of Planned Behaviour to investigate the determinants of recycling behaviour: a case study from Brixworth, UK, 41 (2004) 191–214. https://doi.org/10.1016/j.resconrec.2003.11.001.

[9] R.B. Leary, R.J. Vann, J.D. Mittelstaedt, P.E. Murphy, J.F. Sherry Jr, Changing the marketplace one behavior at a time: perceived marketplace influence and sustainable consumption, J. Bus. Res. 67 (2014) 1953–1958.

[10] K.C. Manning, W.O. Bearden, T.J. Madden, Consumer innovativeness and the adoption process, J. Consum. Psychol. 4 (1995) 329–345.

[11] X. Liu, C. Wang, T. Shishime, T. Fujitsuka, Sustainable consumption: green purchasing behaviours of urban residents in China, Sustain. Dev 20 (2012) 293–308.

[12] A.S. Acharya, A. Prakash, P. Saxena, A. Nigam, Sampling: why and how of it, Indian J. Med. Spec 4 (2013) 330–333.

[13] C.Y. Piaw, Mastering Research Statistics, Malaysia Mc Graw Hill Educ, Shah Alam, 2013.

[14] C. Fornell, D.F. Larcker, Evaluating structural equation models with unobservable variables and measurement error, J. Mark. Res. 18 (1981) 39–50.