Hasil Cek_60960139 (ke2)

by Siti Mahsanah Budijati 60960139

Submission date: 27-Dec-2019 02:28PM (UTC+0700)
Submission ID: 1238475126
File name: CEK_60960139-_2.1.pdf (516.94K)
Word count: 4953
Character count: 26050

Intention Differences Analysis on Used Cellphone Handling Collaboration for Second Hand Market Actors at Yogyakarta, Indonesia

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Abstract. The informal channel through the second hand market for reverse logistics activities on handling used cellphones in Indonesia is highly developed. This development is economically beneficial for informal actors, but on the other hand there are dangerous activities for both actors and the environment. This danger occurs especially if the informal actors do not have adequate technology to process the hazardous materials contained in used cellphones as e-waste. One possible solution to reduce unsafe activities in the informal channel is to switch some activities to the formal channel. For this reason, this research explored the possibility of collaboration between formal and informal channels by analyzing the intention differences on used cellphone handling collaboration for the informal actors in Yogyakarta regions. There were 424 actors in total in the second hand mobile market as the respondents. The results of the descriptive analysis showed that the actors on the informal channel have the collaboration intention. The ANOVA results showed that the second hand market actors for all regions in DIY Province did not provide intention differences to collaborate based on various demographic aspects, except based on treatment behavior towards used cellphone components. Meanwhile the results in each district showed the intention differences to collaborate in Kulon Progo Regency based on marital status and the number of household member, while in Sleman Regency there was the intention difference in collaboration based on treatment behavior towards used cellphone components. These results can be used as a starting point for designing handling collaboration of used cellphones between informal and formal channel.

Keywords: reverse logistics, collaboration intention, informal actors, used cellphones, ANOVA

1. Introduction

Reverse logistics (RL) is an activity of managing goods that are no longer used by consumers or goods in the form of returning them from partners in the supply chain to be restored to the point of origin. RL activities carry out recovery of the goods, so that parts or all items can be reused (Jingbo, 2005; Rogers & Tibben-Lembke, 1998).

The ideal RL activity does not only provide economic benefits for the actors, but also has a positive impact on the environment. The economic benefits can be in the form of an alternative material for raw materials production, so as to reduce the use of virgin material, which is likely to be increasingly scarce. A positive impact on the environment is the avoidance of disposal of some parts or entire used products that are hazardous, without adequate processing.

Used cell phones are one form of e-waste that is commonly managed through RL activities. As it is in the case of developing countries, informal channels through the second hand market for handling secondhand mobile phones in Indonesia are highly developed. This development is economically beneficial for informal actors, but on the other hand there are RL activities that are dangerous for both actors and the environment. This danger occurs especially if RL management is carried out by informal actors who do not have adequate technology to process hazardous materials

contained in e-waste. Examples of activities by informal parties and forms of environmental contamination can be seen in Chatterjee & Kumar (2009), Chi et al. (2011), Joseph (2007), Li et al. (2011), and Robinson (2009).

While RL's activities are on the formal channel, the official channel formed by the cell phone company through the take back program is able to provide economic opportunities for actors and benefit the environment. This happens because the results of processing can be reused for manufacturing new products or other products. Meanwhile, the recovery process is undertook with adequate technology, so that it is safe for the environment. Some authors state these benefits such as Dixit & Vaish (2013), Li et al. (2014), and Srivastava (2007). Furthermore, the examples of cases can be seen in Chatterjee & Kumar (2009), Kumar & Yamaoka (2007), and Soo et al. (2013).

The results of research on Budijati et al. (2015) shows that there are still very few mobile consumers who have ever heard of taking back the cellphone program, and no respondents have even participated in the program. The identified post-consumer behavior is to sell, dispose, store and pass it to others. Even so, consumers have the intention to participate in the program in the presence of several driving factors (Budijati et al., 2016; Budijati et al., 2017).

The reality on the ground shows that the second hand mobile market can be easily found, thus informal lines are more easily accessed by consumers. But because there are practices in the informal path that are not safe for the health of the offender and the environment, it is necessary to think of a solution so that the actors on the informal path still benefit but not endanger themselves or the environment.

One possible solution that can be taken is to reduce unsafe activities in the informal channel and divert it to the formal path. The solution can be manifested through collaborative handling of used mobile phones between actors on the formal and informal lines. If informal actors are willing to collaborate, they can be said to have a role in environmental preservation. For this reason, the objectives of this study are:

1. Exploring the intention of informal channel actors to collaborate with formal parties in used cellphones handling
2. Analyze the informal actors' intention differences to collaborate with formal parties based on demographic background

2. Material and Method

2.1. Formal and informal channel

The existence of informal actors in handling used products cannot be avoided, especially in developing countries. The activity of handling used products is a livelihood for informal actors to meet their economic needs. While from the perspective of RL, the activity of informal line actors is positive because there is a use of value of a used product. Gutberlet & Baeder (2008) believe that in developing countries, the informal sector provides a "front line" service that is very valuable to the majority of people and is economically influencing.

Klundert & Lardinois in Katusiimeh et al. (2013) defines the informal sector as unregistered, unregulated or simple activities carried out by individuals and / or families or community-formed companies, which carry out activities for adding value on a small scale with minimum capital input. According to Ezeah et al. (2013) the informal sector is beyond the control of the state. While its existence according to Ardi & Leisten (2016) is generally ignored by both academics and regulators.

As for the formal sector, stated in Ezeah et al. (2013) as it is modern and industrialized, consisting of public and private companies that are supported legally and financially by government agencies. Thus the RL activities carried out by the OEM (Original Equipment Manufacturer) are known as formal channels.

2.2. Environmental behavior and demographic background

The willingness of actors in the informal channels to reduce environmental impacts by collaborating in handling used cellphones is a positive thing for environmental sustainability. A person's behavior towards the environment can differ from one another due to differences in demographic backgrounds.

The study of environmental behavior in terms of demographic background is also carried out in other countries. Like Potts et al. (2016) examined the level of awareness of the European community on the marine environment. The survey was applied to 7000 citizens with 7 different countries in Europe (Britain, France, Germany, Spain, Portugal, Italy and Poland). It was conducted based on the citizens' variables on age, sex, education and residential area. Another study of citizens was performed by Bidwell (2013) who studied the role of values of trust and public attitudes towards commercial wind energy in the United States.

Furthermore Jansson et al. (2017) studied leadership norms and opinions about the adoption of electric vehicles in Sweden. The study was conducted on vehicle owners in Sweden randomly as many as 3000 people with an age range of 20-75 years. Research showed the importance of interpersonal influences and attitude factors as drivers of innovation technology adoption. While Ataei et al. (2018) examined knowledge of employees' attitudes towards the environment in the agricultural sector in Iran.

The literature that shows research on managers' behavior towards the environment include Leszczynska (2010), which examines the company's environmental awareness related to whether attitudes towards environmental problems reflect economic development. The study was conducted on 200 managers in Australia and Ukraine. While López-Gamero et al. (2011) examined the hotel managers' environmental attitudes toward resource-based internal and external perceptions of environmental management in Spain. Next Nambiar & Chitty (2014) examined the negotiation of environmental concepts and business sustainability in India. Ye et al. (2013) examined the influence of government, customers and competitors in reverse logistics decisions in China, with manager respondents from 209 companies. As for Repar et al. (2018) examined the effects of agricultural management, socio-demographics, technology, and natural environmental factors on the economic performance of milk making, with observations made on 56 cattle farms.

To the author's knowledge, no reference has been found that links the background of the demographics of informal actors to collaborate on used cell phones handling, so this research was conducted.

2.3. Method

The stages of the research include: (1) initial questionnaire dissemination to second hand mobile market actors as respondents, (2) validity and reliability testing of the answers about collaborative intentions, (3) distributing formal questionnaires to respondents, (4) analysis of differences in collaborative intention based on demographic background.

3. Result and Discussion

3.1. Result

The questionnaire was distributed in September to October 2018. The research respondents were actors in the secondhand mobile market in the DIY Region which included the Yogyakarta Municipality, Sleman Region, Bantul Region, Gunung Kidul Region, and Kulon Progo Region.

The description of the respondents is shown in Table 1, while the average value of collaborative intention from the secondhand mobile market players in each region, as well as for the whole DIY can be seen in Table 2.

ANOVA results of differences in the intention to collaborate on used cell phone handlers based on demographic backgrounds for each region are given in Table 3, while the ANOVA results for all DIY respondents are presented in Table 4.

Tabel 1. Data description of respondents

No	Demographic characteristics	Yogyakarta Municipality	Sleman Region	Kulonprogo Region	Bantul Region	Gunung Kidul Region
1	*Gender*					
	a. Male	68	93	18	57	26
	b. Female	22	67	31	18	24
	Total	90	160	49	75	50
2	*Age*					
	a. 20-30 year	59	87	25	69	46
	b. 30-40 year	27	49	20	6	4
	c. 40-50 year	4	24	4	0	0
	Total	90	160	49	75	50
3	*Education level*					
	a. Elementary	0	6	0	1	0
	b. Junior High School	6	29	2	5	0
	c. Senior High School	64	107	37	61	48
	d. Diploma	7	2	6	1	1
	e. Bachelor	13	16	4	7	1
	Total	90	160	49	75	50
4	*Marital status*					
	a. Maried	43	79	29	27	16
	b. Unmarried	47	81	20	48	34
	Total	90	160	49	75	50
5	*Household member*					
	a. 0	42	77	22	49	32
	b. 1-2	25	64	15	24	14
	c. 3-4	21	19	10	2	2
	d. ≥5	2	0	2	0	2
	Total	90	160	49	75	50
6	*Income*					
	a. < 1 million Rp	1	9	16	13	6
	b. 1-2 million Rp	43	84	18	40	41
	c. 2-3 million Rp	17	55	5	7	2
	d. 3-5 million Rp	9	11	5	11	1
	e. > 5 million Rp	18	1	5	4	0
	d. Other	2	0	0	0	0
	Total	90	160	49	75	50
7	*Position at work*					
	a. *Owner*	36	65	20	26	4
	b. Employee	52	95	26	47	46
	c. Other	3	0	3	2	0
	Total	90	160	49	75	50
8	*Treatment of used components*					
	a. Being saved	56	52	39	40	22
	b. Sold online	3	6	0	27	4
	c. Removed to the trash	12	1	4	1	21
	d. Taken by collectors	19	101	6	7	22
	Total	90	160	49	75	50

Tabel 2. The average value of collaborative intention

Yogyakarta Municipality	Sleman Region	Kulon Progo Region	Bantul Region	Gunung Kidul Region	DIY province
3.600	4.008	3.784	3.870	3.460	3.744

Tabel 3. ANOVA results based on demographic background in each region

Yogyakarta Municipality	Sleman Region	Kulon Progo Region	Bantul Region	Gunung Kidul Region
Gender				
$F_{hit}(0.391) < F_{tab}$ (3.19) H_1 accepted There is no difference in the intention to collaborate based on gender	$F_{hit}(0.561) < F_{tab}$ (3.05) H_1 accepted There is no difference in the intention to collaborate based on gender	Sig 0.788 H_1 accepted There is no difference in the intention to collaborate based on gender	$F_{hit}(0.157) < F_{tab}$ (3.97) H_1 accepted There is no difference in the intention to collaborate based on gender	$F_{hit}(0.335) < F_{tab}$ (4.04) H_1 accepted There is no difference in the intention to collaborate based on gender
Age				
$F_{hit}(0.677) < F_{tab}$ (4.04) H_1 accepted There is no difference in the intention to collaborate based on age group	$F_{hit}(0.497) < F_{tab}$ (2.66) H_1 accepted There is no difference in the intention to collaborate based on age group	Sig 0.194 H_1 accepted There is no difference in the intention to collaborate based on age group	$F_{hit}(1.109) < F_{tab}$ (2.12) H_1 accepted There is no difference in the intention to collaborate based on age group	$F_{hit}(1.265) < F_{tab}$ (3.19) H_1 accepted There is no difference in the intention to collaborate based on age group
Education level				
$F_{hit}(1.575) < F_{tab}$ (2.57) H_1 accepted There is no difference in the intention to collaborate based on education level	$F_{hit}(1.833) < F_{tab}$ (2.43) H_1 accepted There is no difference in the intention to collaborate based on education level	Sig 0.113 H_1 accepted There is no difference in the intention to collaborate based on education level	$F_{hit}(0.912) < F_{tab}$ (2.73) H_1 accepted There is no difference in the intention to collaborate based on education level	$F_{hit}(0.364) < F_{tab}$ (2.79) H_1 accepted There is no difference in the intention to collaborate based on education level
Marital status				
$F_{hit}(0.135) < F_{tab}$ (3.19) H_1 accepted There is no difference in the intention to collaborate based on marital status	$F_{hit}(0.749) < F_{tab}$ (2.43) H_1 accepted There is no difference in the intention to collaborate based on marital status	Sig 0.012 H_0 rejected There are differences in the intention to collaborate based on marital status Married actors have greater collaborative intentions than those who are not married, with an intention value of 3.9448 compared to 3.5500	$F_{hit}(0.076) < F_{tab}$ (3.97) H_1 accepted There is no difference in the intention to collaborate based on marital status	$F_{hit}(1.255) < F_{tab}$ (4.04) H_1 accepted There is no difference in the intention to collaborate based on marital status
Household member				
$F_{hit}(0.973) < F_{tab}$ (2.58) H_1 accepted There is no difference in the intention to collaborate based on household member	$F_{hit}(0.607) < F_{tab}$ (2.43) H_1 accepted There is no difference in the intention to collaborate based on household member	Sig 0.026 H_1 rejected There is a difference in the intention to collaborate based on household members. But the results of the *Student -Newman-Keuls* Test did not result in group classification based on household members	$F_{hit}(0.607) < F_{tab}$ (3.12) H_1 accepted There is no difference in the intention to collaborate based on household member	$F_{hit}(0.445) < F_{tab}$ (2.56) H_1 accepted There is no difference in the intention to collaborate based on household member
Income				
$F_{hit}(0.307) < F_{tab}$ (2.80) H_0 accepted There is no difference in intention to collaborate based on income	$F_{hit}(0.231) < F_{tab}$ (3.05) H_0 accepted There is no difference in intention to collaborate based on income	Sig 0.059 H_0 accepted There is no difference in intention to collaborate based on income	$F_{hit}(0.438) < F_{tab}$ (3.12) H_0 accepted There is no difference in intention to collaborate based on income	$F_{hit}(0.409) < F_{tab}$ (2.79) H_0 accepted There is no difference in intention to collaborate based on income

Tabel 3. (Continued) ANOVA results based on demographic background in each region

Yogyakarta Municipality	Sleman Region	Kulon Progo Region	Bantul Region	Gunung Kidul Region
Position at work				
$F_{hit}(1.236) < F_{tab}$ (4.04) H_0 accepted There is no difference in intention to collaborate based on position at work	$F_{hit}(2.508) < F_{tab}$ (2.43) H_0 accepted There is no difference in intention to collaborate based on position at work	Sig 0.295 H_0 accepted There is no difference in intention to collaborate based on position at work	$F_{hit}(0.649) < F_{tab}$ (3.12) H_0 accepted There is no difference in intention to collaborate based on position at work	$F_{hit}(1.337) < F_{tab}$ (4.04) H_0 accepted There is no difference in intention to collaborate based on position at work
Treatment of used components				
$F_{hit}(1.030) < F_{tab}$ (2.58) H_0 accepted There is no difference in intention to collaborate based on treatment of used components	$F_{hit}(0.561) < F_{tab}$ (3.05) H_0 rejected There are differences in intention to collaborate based on treatment of used components. Treatment removes the remaining components having the greatest intention value, i.e. 4.466	Sig 0.099 H_0 accepted There is no difference in intention to collaborate based on treatment of used components	$F_{hit}(0.649) < F_{tab}$ (3.12) H_0 accepted There is no difference in intention to collaborate based on treatment of used components	$F_{hit}(3.509) > F_{tab}$ (2.81) H_0 accepted There is no difference in intention to collaborate based on treatment of used components

Tabel 4. ANOVA results based on demographic background in the Province of DIY

Demographic Characteristics	Level of significance	Conclusion	
Gender	0.885	H_0 accepted	There is no difference in intention to collaborate based on gender
Age	0.136	H_0 accepted	There is no difference in intention to collaborate based on age
Education level	0.068	H_0 accepted	There is no difference in intention to collaborate based on education level
Marital status	0.089	H_0 accepted	There is no difference in intention to collaborate based on respondents in the marital status group *single* dan *married*
Household member	0.644	H_0 accepted	There is no difference in intention to collaborate based on household member
Income	0.986	H_0 accepted	There is no difference in intention to collaborate based on income
Position at work	0.430	H_0 accepted	There is no difference in intention to collaborate based on position at work
Treatment of used components	0.029	H_0 rejected	There is a difference in the intention to collaborate based on the treatment of used cellphone components. Uji *Student-Newman-Keuls* produce group classification based on treatment of used cell phone components, namely: i. Group I consisted of treatment: *cannibalization, sale, burned* and *saved* (in which the value of consecutive intentions are: 3,650; 3,766; 3,778; 3,849) ii. Group II consisted of treatment: sale via *online* (the value of intention is: 4,343)

3.2. Discussion

From Table 2 it can be seen that players in the second hand market show an intention to collaborate in handling used cell phones. The value of intention in each regency of the city is more than 3.5 close to 4, except in Kulon Progo Regency close to 3.5 (which means 1 = very no intention, 2 = no intention, 3 = doubtful, 4 = intending, 5 = very intend). Meanwhile, the average intention for all regions of DIY Province is 3.744. Thus it can be interpreted that the second hand mobile market players have the intention to collaborate in handling used cell phones together with formal actors. These results can be used as a reference for actualized cooperation in handling used cell phones, so that the negative impact of handling used cell phones by informal actors can be reduced.

Furthermore, technical collaboration between informal and formal actors needs to be considered, so that both actors get adequate benefits. It is necessary to regulate the distribution of used cellphone handling activities between informal and formal actors, namely what stages are carried out by formal actors, and what activities begin to be transferred to formal actors. This can be examined in subsequent studies.

Demographic data analysis for all respondents in the DIY Province Region (Table 4) based on gender, age, education level, marital status, household members, income, position at work, and treatment of components or remnants of used cell phones using ANOVA shows that there are significant differences in collaboration intentions based on the treatment of used cellphone components. Second hand market players who treat used cell phone components for sale online show the highest intention to collaborate in handling used cell phones compared to players who cannibalize, sell, burn or store the remaining used cell phone components. A possible reason could be stated is that the behavior of selling used components online is a behavior that will not be much different if the used components that have been sold online have been diverted to be sent to formal parties, so that these actors show a high intention to collaborate.

While the ANOVA results in each Regency / City (Table 3) show that there are the intention differences to collaborate in Kulon Progo Regency based on marital status and the number of household members. Married second hand market participants show a higher intention to collaborate than unmarried actors, possibly because someone who is married has higher family responsibilities and sees collaborating with formal parties as an economic opportunity.

Furthermore, the results in Kulon Progo Regency which showed differences in collaborative intentions among perpetrators based on household members, after a post hoc test with the *Student-Newman-Keuls* test did not result in group classification based on the household member.

On ANOVA results in Sleman Regency, there is the intention difference in collaboration based on treatment behavior towards used cellphone components. Second hand market players who usually dispose of the remaining cell phone components show the highest intention to collaborate. These results are different when compared to the results for all respondents in the Province of DIY based on the treatment of used components.

The ANOVA results when compared with other studies can be reviewed as follows: in Bidwell (2013) and Potts et al. (2016) found that gender differences make differences in environmental values, it was found that there was a clear tendency for women to care about the environment compared to men. In Bidwell (2013) also found differences in attitudes towards the environment based on education level. While in Jansson (2017) based on household members, there are differences in attitudes towards the environment, namely in the use of electric cars compared to conventional cars. Furthermore, when viewed from the position at work ANOVA results in this study have the same results as the research of López-Gamero et al (2011) and Ye et al. (2013) where the position of work does not affect the perception of the environment.

Furthermore, the results of this study can be used as a reference in designing collaborative handling of used mobile phones involving informal and formal actors. One of them is to make second hand marketers who sell online the remaining used cellphone components as agents of change, to influence other players so that the intention to collaborate in handling used cell phones can increase, so that it is easier to actualize these collaborative activities.

Conclussion

Some conclusions that can be drawn from this study include:

1. Actors in the second hand cellphone market in the Regency / Municipality areas as well as all respondents in the Province of DIY show the intention to collaborate in handling used cell phones with formal actors.
2. Analysis of differences in intention to collaborate based on demographic data in each Regency / Municipality in DIY shows that in Kulon Progo Regency there are differences in the intention to

collaborate based on marital status and the number of household member, while in Sleman Regency there was the intention difference in collaboration based on treatment behavior towards used cellphone components, while other Regency / Municipality have no intention to collaborate based on various demographic backgrounds.

3. The analysis towards entire actors of second hand market in DIY province does not provide intention differences to collaborate based on various demographic aspects, except based on treatment behavior towards used cellphone components.

Acknowledgement

This paper is a part of a postdoc research financially supported by a Post Doctoral Grant from the Directorate General of Higher Education, Ministry of Education and Culture of Indonesia which is highly appreciated.

The authors also thanks to the students of Industrial Engineering Department, Ahmad Dahlan University who helped in collecting data for this study.

References

Ardi, R., & Leisten, R. (2016). Assessing the role of informal sector in WEEE management systems: A System Dynamics approach. *Waste Management*, *57*, 3-16.

Ataei, P., Aliabadi, V., Norouzi, A., & Sadighi, H. (2018). Measuring the employees' environmental attitude of agricultural knowledge-based companies based on sociocultural components: a case study from Iran. *Environment, Development and Sustainability*, 1-14.

Bidwell, D. (2013). The role of values in public beliefs and attitudes towards commercial wind energy. *Energy Policy*, *58*, 189-199.

Budijati, S. M., Wibisono, M. A., & Masruroh, N. A. (2015). A Study of Consumers' Post Consumption Behaviour for Mobile Phone in Indonesia. In *Industrial Engineering, Management Science and Applications 2015* (pp. 563-573). Springer Berlin Heidelberg.

Budijati, S. M., Subagyo, Wibisono, M. A., & Masruroh, N. A. (2016). Influence of government and economic drivers on consumers' intentions to participate in a take back program. *International Journal of Logistics Systems and Management*, *23*(3), 343-362.

Budijati, S. M., Subagyo, Wibisono, M. A., & Masruroh, N. A. (2017). The influence of environmental attitude on consumers' intentions to participate in a take back program. *International Journal of Logistics Systems and Management*, *26*(4), 421-452.

Chatterjee, S., & Kumar, K. (2009). Effective electronic waste management and recycling process involving formal and non-formal sectors. *International Journal of Physical Sciences*, 4(13), 893–905.

Chi, X., Porte, M.S.,Wang, M.Y.L., & Reuter, M.A. (2011). Informal electronic waste recycling: A sector review with special focus on China. *Waste Management*, 31, 731–742.

Dixit, S. & Vaish, A. (2013). Sustaining environment and organisation through e-waste management: a study of post consumption behaviour for mobile industry in India, *International Journal of Logistics Systems and Management*, 16(1),1–15.

Ezeah, C., Fazakerley, J. A., & Roberts, C. L. (2013). Emerging trends in informal sector recycling in developing and transition countries. *Waste management*, *33*(11), 2509-2519.

Gutberlet, J., & Baeder, A. M. (2008). Informal recycling and occupational health in Santo André, Brazil. *International Journal of Environmental Health Research*, *18*(1), 1-15.

Jansson, J., Nordlund, A., & Westin, K. (2017). Examining drivers of sustainable consumption: The influence of norms and opinion leadership on electric vehicle adoption in Sweden. *Journal of Cleaner Production*, *154*, 176-187.

Joseph, K. (2007). Electronic waste management in India-Issues and strategies. *Proceedings Sardinia 2007, Eleventh International Waste Management and Landfill Symposium*, CISA, Environmental Sanitary Engineering Centre, S. Margherita di Pula, Cagliari, Italy.

Jingbo, Y. (2005). *The Coordinate Study of Reverse Logistics and Green Supply Chain,* Diakses dari http://www.seiofbluemountain.com/upload/product/201002/12651652325cqooobk.pdf., pada 11 Agustus 2011

Katusiimeh, M. W., Burger, K., & Mol, A. P. (2013). Informal waste collection and its co-existence with the formal waste sector: the case of Kampala, Uganda. *Habitat International*, *38*, 1-9.

Kumar, S., & Yamaoka, T. (2007). System Dynamics Study of the Japanese Automotive Industry Cloosed loop Supply Chain. *Journal of Manufacturing Technology Management*, 18(2), 115–138.

Leszczynska, A. (2010). Manager's attitude toward environment. *Industrial Management & Data Systems*, *110*(8), 1234-1250.

Li., B., Du, H.Z., Ding, H.J., & Shi, M.Y. (2011). E-Waste Recycling and Related Social Issues in China, *Energy Procedia*, 5, 2527–2531.

Li, X., Li, Y., & Govindan, K. (2014). An incentive model for closed-loop supply chain under the EPR law. *Journal of the Operational Research Society*, *65*(1), 88-96.

López-Gamero, M. D., Molina-Azorín, J. F., & Claver-Cortes, E. (2011). The relationship between managers' environmental perceptions, environmental management and firm performance in Spanish hotels: a whole framework. *International Journal of Tourism Research*, *13*(2), 141-163.

Nambiar, P., & Chitty, N. (2014). Meaning making by managers: corporate discourse on environment and sustainability in India. *Journal of business ethics*, *123*(3), 493-511.

Potts, T., Pita, C., O'Higgins, T., & Mee, L. (2016). Who cares? European attitudes towards marine and coastal environments. *Marine Policy*, *72*, 59-66.

Repar, N., Jan, P., Nemecek, T., Dux, D., & Doluschitz, R. (2018). Factors affecting global versus local environmental and economic performance of dairying: A case study of Swiss mountain farms. *Sustainability*, *10*(8), 2940.

Robinson, B.H. (2009). E-waste: an assessment of global production and environmental impacts. *Science of the total environment*, 408(2), 183–191.

Rogers, D.S., & Tibben-Lembke, R.S. (1998). Going Backwards: Reverse Logistics Trends and Practices, *Center for Logistics Management*, University of Nevada, Reno.

Soo, V.K., Featherston, C., & Doolan, M. (2013). E-waste Assessment in Malaysia. *Proceeding 20th CIRP International Conference on Life Cycle Engineering,* 17-19 April, Singapore, 389–395.

Srivastava, S. K. (2007). Green supply-chain management: a state-of-the-art literature review. *International journal of management reviews*, *9*(1), 53-80.

Ye, F., Zhao, X., Prahinski, C., & Li, Y. (2013). The impact of institutional pressures, top managers' posture and reverse logistics on performance—Evidence from China. *International Journal of Production Economics*, *143*(1), 132-143.

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