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STRATEGIC PLANNING OF REVERSE LOGISTICS SYSTEM AMONG OMNICHANNEL COMPANIES: A QUALITATIVE STUDY

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ABSTRACT

In an omnichannel context, reverse logistics systems are hazy and difficult to manage. Improper reverse logistics management can lead to consumer unhappiness and increased costs for omnichannel companies. Therefore, the understanding of reverse logistics in omnichannel environment is important to improve the management of reverse flow. This paper aims to explore the factors in reverse logistics system that would improve omnichannel firm performance. The semi-structured interviews were arranged and useful to obtain comprehensive understanding about reverse logistics system among companies in the omnichannel environment. Thematic content analysis was conducted to analysis the interview. The thematic analysis has provided a thorough understanding of reverse logistics in omnichannel companies, as well as their role in improving firm performance. Overall, there are nine major themes identified which was top management support, formalization, flexibility, information system, collaboration, supplier, customer, regulator, and competitor. The themes identified from omnichannel companies can be categorized into two categories which were firm and task environment factors. Omnichannel companies were reported a positive attitude in these reverse logistics factors to support the improved firm performance. The themes discussed because were thought to help in managing reverse logistics system and thus ensure the company's success. The findings of this study also providing a robust structural for understanding in omnichannel reverse logistics system.

In conclusion, managers and related practitioners could manipulate the reverse logistics systems to improve firm performance. At the same time, the outcome would provide more comprehensive understanding in the strategic criteria of reverse logistics management.

Keywords: Omnichannel, reverse logistics, firm performance

INTRODUCTION

In order to survive through COVID-19 pandemic, companies need to adopt omnichannel strategy (Leu & Masri, 2021). Accordingly, traditional retailers have gained entry into the digital channels while at the same time, e-commerce retailers have started operating new brick and mortar stores (Hübner et al., 2016; Rai et al., 2019). Small and medium enterprises (SME) have been encouraged by the government to participate in the omnichannel business environment but they may be facing obstacles as the trend may be still unfamiliar to them (Kaur et al., 2019; Mahusni & Abdul Ghafar, 2018). In reverse logistics, various factors such as collaboration, information system, resources commitment, and strategic planning (Bai & Sarkis, 2018; Genchev, 2009; Ho et al., 2012; Huscroft et al., 2013; Mai et al., 2012; Morgan et al., 2016) represent firm factors and have been identified as determinants for effective reverse logistics. The necessity of firm factors such as collaboration between different individual departments and information systems is needed to support an omnichannel business structure, while the facilitation of a reverse logistics system is related to the firm factors which could lead to enhanced omnichannel performance. Besides that, the importance of task environment factors in reverse logistics also cannot be neglected. Task environment factors in reverse logistics systems are influenced by customers, suppliers, competitors, and regulators (Carter & Ellram, 1998). These reverse logistics factors were found to be strong predictors for reverse logistics in previous studies but have not been examined from an omnichannel context. By understanding such relationships, the issues of effective reverse logistics may be identified, and company performance can be improved by cultivating a more aggressive attitude towards the improvement of company operations and strategic planning. Consequently, summarizing the gaps mentioned above in current knowledge and for the need for research. The purpose of this thesis is to fortify the theoretical structure in the reverse logistics field, which still needs to be explored and examined (Carter & Ellram, 1998).

LITERATURE REVIEW

Omnichannel companies refer to the entities that manage different types of channel (digital and physical) in various stages of the return process. Some examples of omnichannel companies that are often discussed include manufacturers, digital retailers, physical retailers, and logistics service providers (Saghiri et al., 2017). The reverse logistics system is important in return processes because it gives omnichannel companies an advantage from the aspects of customer satisfaction and cost optimization. Hübner et al., (2016) had conducted exploratory research on the distribution systems in omnichannel. A distribution system is characterized by its sources and destination of delivery. The following framework constructed based on expert opinion provides a comprehensive understanding on the physical flow in omnichannel distribution.

As shown in the figure 1, omnichannel companies have more options for product delivery and collection. In forward distribution, customers can receive product direct from manufacturers or retailers through a courier service. Companies can utilize distribution centers to fulfil online orders from web shops and mobile applications. Besides that, customers can choose to purchase directly in store or buy online and pick up in store. While looking back at the backward flow, reverse logistics in omnichannel indicates that different stages and channels are linked together to perform the return activities. Therefore, information in reverse flow will be retrievable, traceable and changeable (Saghiri et al., 2017). The integration of information increases visibility for a company to decide the most suitable process for collected material, whether to recycle or redistribute. In omnichannel backward

distribution, companies offer different return methods for customers such as return in store, drop point, and courier service (Bernon et al., 2016). From a logistics perspective, the reverse logistics has become more complex as the number of channels increase. The reverse logistics process is no longer linear; it indicates that collection through brick & mortar is increasingly overlapping with collection by courier service (Hübner et al., 2016). Overall, the reverse flow is more complex and difficult to predict than forward logistics. Therefore, a well-organized reverse logistics system is needed to handle these complex and uncertainties (Bernon et al., 2016; Tibben-Lembke & Rogers, 2002).

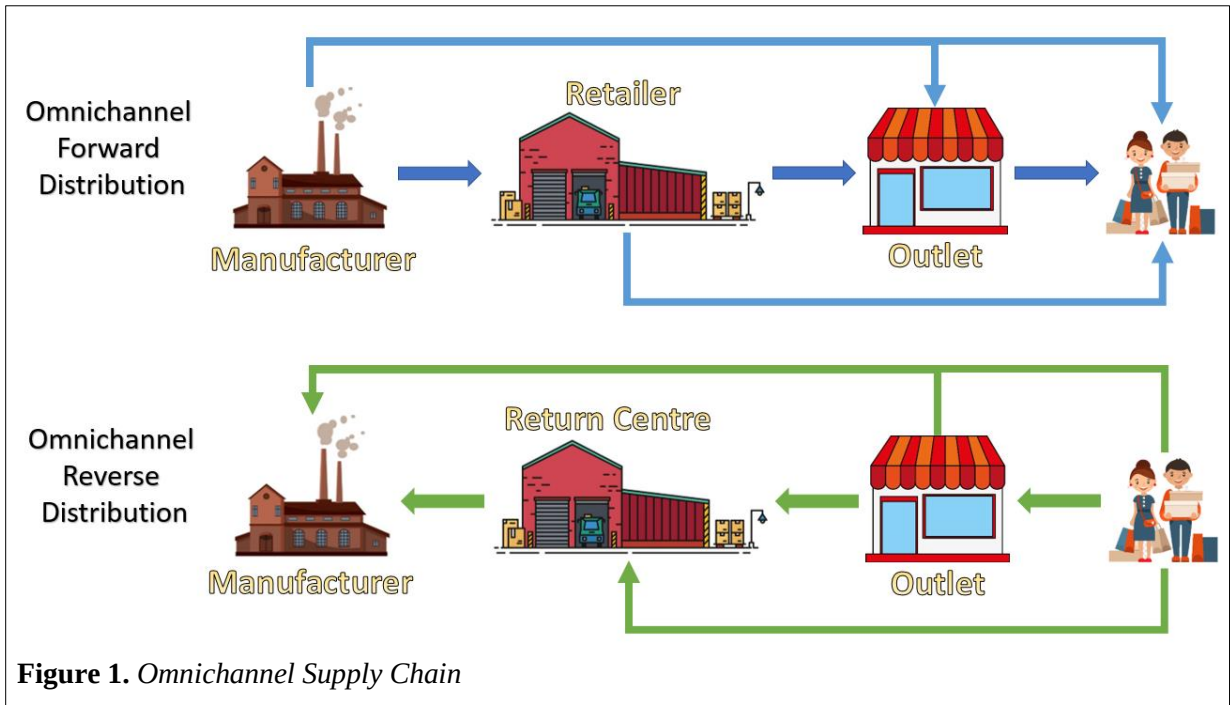


Figure 1. Omnichannel Supply Chain

An effective reverse logistics system should have top management support, information system, collaboration, flexibility, and formalization (Bai & Sarkis, 2013; García-Sánchez et al., 2018; Genchev et al., 2011; Ho et al., 2012; Morgan et al., 2016). Managers who are conscious of the complexity and uncertainty in reverse logistics activities positive attitude toward reverse logistics management are very important for the effectiveness of reverse logistics systems which could reduce cost (García-Sánchez et al., 2018). Moreover, the firm can properly manage the reverse logistics activities according to the expectations of stakeholders by having formalization and standardization procedures (Huscroft, 2010). For example, formalized procedures in firm factors can be established to identify the best reprocessing method for returned products whether the products should be resold, reuses, repaired, refurbished, remanufactured, retrieved or recycled. Besides that, companies that are equipped with operational flexibility could ensure the smooth movement of reverse logistics activities such as gatekeeping, collection, sortation, and disposition (Tombido et al., 2018). Flexibility provides a company the ability to react to unexpected incidents and figure out innovative solutions (Bai & Sarkis, 2013). Achieving flexibility require the cooperation of multiple managerial levels within and across organizations. Furthermore, companies need to utilize information systems in reverse logistics operations to handle the complexity and increase the speed of process flow (García-Sánchez et al., 2018). For example, a company can plan a reverse logistics operation based on prediction of the type and volume of returns by historical database. Collaboration was defined by Mai et al. (2012) as a synergistically shared process within a firm where two or more departments display mutual understanding and a shared vision as well as closely work together to achieve collective goals. As mentioned earlier, handling of reverse logistics activities is complex and uncertain. A research by Hernández et al. (2011) emphasized the importance of information sharing to handle the complexity of planning in reverse flow such as collection channels.

Based on previous studies, reverse logistics system of omnichannel companies also should conform

to the external influences such as supplier, customer, regulator and competitor (Abdullah & Yaakub, 2015; Carter & Ellram, 1998; Huang et al., 2016; Mills, 2007; Ye et al., 2013). Companies that coordinate and integrate with suppliers in the implementation of reverse logistics whether intra- and inter-organization processes can improve performance through better partner relationships (Vlachos, 2016). Companies that integrate with suppliers could reduce the bullwhip effect that leads to improper planning and inefficient resource allocation. Moreover, the company that has the ability to recognize and react to the demands of customers is better able to survive in the competitive market (Vlachos, 2016). Moreover, Ye et al. (2013) also indicated that paying attention to the customer has always been an important criteria of business. However, some studies have mentioned that the regulator is the greatest impact among task environment factors in the company reverse logistics practices (Carter & Ellram, 1998). The regulator can control as well as formulate laws and regulations to influence an organization's policies and strategies (Huang & Yang, 2014; Lau & Wang, 2009). In a social network, a company may imitate the practice of other network members unconsciously (Ye et al., 2013). A company will imitate another that they perceive as the winner in their industry. Companies may copy reverse logistics strategies from other more successful competitors (Huang & Yang, 2014). These studies had discussed different element of reverse logistics system in companies that may influence firm performance. However, the emergence is not capture as well. Hence, a study is needed to explore the reverse logistics system of the companies that operate in the omnichannel environment.

METHODOLOGY

Semi-structured interviews were used to collect data for consolidate the themes by using a phenomenological interviewing approach. The phenomenological interview is useful to collect descriptions of context by using broad and open-ended questions (Bevan, 2014; Roulston, 2010). A priori themes derived from a fixed set open end questions by interview the respondents with reverse logistics management experience (Ryan & Bernard, 2003). This study had capture eleven participants that are voluntary to take part and sufficient information had been captured (Creswell, 2014). This study applies a stratified random sampling strategy in which the questionnaire is distributed to different defined groups in the population (Kumar, 2011; Sekaran & Bougie, 2016). This sampling strategy could ensure that all categories are included in the study rather than only collecting data from certain types of omnichannel companies. The demographic of respondents are shown as below:

Table 1

Demographic Table for Interviewees (n=11)

Item		Number	Percentage
Role Of Omnichannel Company	Retailer	6	54.5%
	Manufacturer	3	27.3%
	Logistics Service Provider	2	18.2%
Working Experience	2- 4 Years	7	63.6%
	5-10 Years	2	18.2%
	More Than 10 Years	2	18.2%
Position	Executive	8	72.7%
	Manager	3	27.3%

Thematic analysis had used to analyse the data and it had been defined as a method for identifying, analysing and reporting themes within the qualitative data (Roulston, 2010). It is a suitable method to organize the data by grouping the data based on themes. These data will categorize based on themes and support by the evidence in the interpretations.

DISCUSSION

Based on these interviews, the elements of reverse logistics could be separate to internal and external. Respondents had pointed out the reverse logistics system in their company was equipped with certain internal elements. The main themes associated with these internal elements were top management support, formalization, flexibility, information system, and collaboration.

Top Management Support

8 of 11 interviewees had mentioned top management in their reverse logistics system. Most of the interviewees highlighted the role of top management as a decision-maker to solve the problem or error in reverse logistics systems. One interviewee stated:

I09: There is a daily report auto generated and sent to manager ... normally they need to have group discussion as well provide preventive and corrective action.

This had shown that top management is dedicated to minimizing errors in the reverse logistics system to ensure the functionality of the reverse logistics process. At the same time, some of the top management will participate in the reverse logistics process to minimize the cost as one of the interviewee stated:

I05: We need the approval from top management before we scrap the seal because it incurred cost ... sometime they will give some suggestion to the technical persons in the factory. So, they can do some improvement on the products to reduce the problem.

Besides that, retailing and manufacturing companies are collecting feedback for returned products. Some of the interviewees had pointed up that top management will evaluate the reason for returns. After that, they will be planning for improvement according to the feedback of customers. One interview gave examples by stated:

I04: manager and top management will oversee the return reason and provide advice to the people in charge to be careful in future order.

In order to increase firm performance, the role of top management in reverse logistics systems has been annotated by interviewees to ensure the processes are effective and efficient.

Formalization

9 of 11 interviewees had frequently highlight elements that related to formalization. For instance, their company having standard operation procedures (SOP) in their reverse logistics process. All the related personnel need to follow the SOP guideline in the returns process. Interviewees had mentioned that SOP is important when they handle a lot of customers in which the SOP can simplify the return processes.

I01: We do have our SOP for collection process. In the good return process, our sales executives and drivers are required to check on the spot to make sure the products are still in good condition. Then, only we can proceed to the next step which issues the CN to our customer. Due to the big amount of customers, that why the SOP is very important. It became a guideline for our return process which make it faster and improve customer satisfaction.

Besides that, interviewees had mentioned return policy in their reverse logistics system. All the terms and conditions of returns are referring to the return policy such as a valid period, type of product, and return options. In the interview, interviewees show that the return policy may publish in different places such as online website stores and invoices. This published return policy can be read by customers in the early or end of the purchase journey.

I01: In our company, we do accept the good return based on the return policy... As long as not more than a week or 7 days, we will accept good return provide in good condition and original packaging.

It means that all the company should have their own return policy and they should be listed down all the term and conditions clearly in the policy. Some of the interviewees also mentioned that they need to achieve some of the goals in their reverse logistics processes based on the standard operation procedure. The existence of process goals is to ensure the reverse logistics system can function effectively in order to improve customer service and customer satisfaction.

I11: There are standard operation procedure for us to follow. These can make sure our performance can meet the standard such as reply to the customer request within 3 days.

These descriptions had shown that the formalization element exists in the omnichannel companies. When omnichannel companies practice the formalization element in the reverse logistics system, it could help the companies to improve firm performance in particular customer relationship.

Flexibility

Flexibility is also frequently mentioned by most of the interviewees (90.1%) in the reverse logistics process. In case, an interviewee had direct mentioned that the company should equip the reverse logistics system with flexibility.

I10: The return process also related to flexibility of our company. If the return process is easy and fast, these mean our company are very flexible to our customer request. These can help company to build a good image among customers.

In particular, other interviewees also mentioned more elements that had related to the flexibility in return process such as schedule, channel, and product. In order to provide convenience to the customers, some of the companies offer flexible channels for customers to return unwanted products. Customers can choose to either return through physical stores or pick up.

I06: Customers can do their return process in any of our retail stores nationwide in Malaysia. So, customers can bring their returned items to our counter and our staffs will verify for the products... Otherwise, Amway will arrange for service technician or delivery team for collect parcel from customers.

Customers can return their products in retail stores or pick up by courier that offered by these omnichannel companies. Besides that, omnichannel companies also had offered different channels for customer to initiate returns such as website store, e-commerce platform, email, social media and even retail outlet.

I10: They will contact us by clicking the return function in the market place so the third party platform will trigger us about the return case. If the customer purchases the product from own website, they can contact us directly by clicking the message button in our online store to connect to us. Besides that, they also can email us or contact us through social media such as Facebook and tell us their issues. Customer can return the goods to the nearest retail outlet and then our salesperson will assist to ship back the item.

Another perspective of flexible would be the returns request that raise by customers. Omnichannel companies are willing to handle different kind of return reasons.

I10: We accept all kind of returns. For example, broken product due to courier service provider miss handling and packaging problem are allowing to return. Let say if our customer wants to change the size and colour of the product and they can request for return too.

In order to resolve different kind of return requests, they have flexibility from return policy that would answer to the customer requests. Different products would have different types of return policy based on the product characteristics.

I11: We accept different kind of returns based on return policy as mentioned in the information of products. We got different kind of return policy which have different return availability... However, some products are completely not allowed for return especially those perishable products such as food.

From the aspect of a collection in the return process, companies are offering a pick-up schedule based on customer preferences. Customers are entitled to choose their preferred time for the carrier to come over and collect unwanted goods.

I06: The collection for customer schedule is based on customer preferences... we also communicate with our third party because we are assigning our forwarder or our technician to meet up with customer.

Another example would be the interviewee's company would offer solutions to the vendor that has obstacles in picking up return products.

I03: Our client personal incharge will arrange for transporter (to pick up returned products). In case, they cannot find transporter and they have urgent order. They will request we use our own transporter. Then, we will check with our driver (for the availability).

Generally, omnichannel companies that equip reverse logistics systems with flexibility could ensure customer satisfaction and maintain a good customer relationship.

Information System

For the theme information system, there are many kinds of information systems that had been mentioned by interviewees directly such as Oracle EDS and Korean ERP system.

I06: We do have the information system to do tracking for all this kind of process and we are using AS1. Previously, we are using AS400 system and now we had switch to another new system which is called oracle EDS.

I07: We do have a standard system that have record the return information which is Korean ERP system.

Interviewees had described the function of the information system in the reverse logistics process. Mostly, interviewees had mentioned their company is using an information system to record the reverse logistics process either the order is in the process of return or had been returned.

I02: After all this checking is completed, we will upload the details to our system based on the collection and customers will need to acknowledge that the returned goods have been received in our warehouse.

By using the data stored inside the information system, omnichannel companies could use the data to identify the root cause of returns. If the omnichannel companies could study the returns reason apparently, they could resolve the problem which could improve their firm performance. Some omnichannel companies can track the status of returned goods by using the information system. The tracking function can ensure the status would be kept updated to the customer.

I06: After that, they will key in those information into the system based on the document. So, we are using both document and system for tracking for purpose.

Besides that, the information system of some companies also plays a role as a communication tool as described by interviewees. Omnichannel companies using the information system to communicate

with customer regarding any details for the returns. The interviewee also had giving on the details about the input and output of the information system to provide appropriate information.

I03: The company had using our warehouse management system to retrieve the order from our clients. Some of the session for my company using it to retrieve the order from my clients. First, receive the email from client about the new order. Then, upload the excel file into our warehouse management system to print out the order.

Furthermore, one interviewee also highlighted the function of information system as a communication platform between vendors and end users. They can discuss the returns process through the information system for further actions.

I11: We have our own order management system to manage all the order which including those return orders. First, the platform had been using to communicate between our company, sellers and customers.

The information system enables communication inside the firm in which the in-charge person performs their task according to the instruction. When the task had completed, the status will update in the system. Next, the returned goods will transfer to the related department or personnel.

I02: information system mainly for record each job including deliver and return. Customer service will be key in the job inside the system and other team will be take action based on the system.

The information system also plays a role as reminder which avoid further delay of customer return requests. The function of reminder could ensure the return process is effective and efficiency.

I10: For the backend platform of our market places and online store, customer click the return function and notification will send to us which will be directly record in the system ... Information system also will trigger us to respond to our customers soon as possible. For example, we didn't respond to our customer and the system will generate a pop out message which remind us.

Overall, interviewees had highlight different role of information system in the implementation of reverse logistics system.

Collaboration

10 of 11 interviewees had highlighted that different teams or departments are involved in the return process. They need to work together to ensure the reverse logistics system smoothly. The different team had their task in the return process but they need to collaborate to complete the task. They coordinate with other different teams to ensure effectiveness of the reverse logistics system. For instance, the collaboration between the customer service and logistics department had been frequently highlighted by interviewees. Mostly, the logistics department would responsible for the collection process.

I1: That will 3 parties will be involve in the good return process... Customer will request a good return through the phone call or email with our sales executive. The second party is from our company sites whether is driver or sales executive (logistics). They will go and collect the returned goods from our customer. Our sales executives need to check on the returned goods on the quantity and quality. The third party also is from our company sites which is the customer care (customer service). They will issue a credit note (CN) to our customer after we make sure the returned good is acceptable and staging in our warehouse.

Besides that, some omnichannel companies also organize a department that purposely handle those returned products. The department also need to work together with other departments in the return process.

I10: we will pass the returned good to our rework department before we pass back the returned good to our warehouse. So, the rework department will check and verify whether the goods need to be rework or is it okay to return back to warehouse or either the good must be dispose.

Besides that, interviewees also stated the importance of information sharing between different department in the reverse logistics process. They had mentioned that the customer service team need to provide the correct information to the logistics department to ensure that they had collected the correct returned unit at the correct time in the correct place from the correct person.

I7: We have few departments in the office and the communication with the customers is only one person. So, the single person that communicate with customers will collaborate with other departments such as department that in charge for repair. The person will be knowing all the information for the return process and maintain contact with the customers.

The information that sharing among different departments also helping the employees to perform their task. For example, certain department judging the destination of returned products based on the information from other departments.

I6: Our customer service is in charging for information collection on the returned goods. However, the decision on whether for accept the returned goods still will depend on the PRS team. They are the one who are make decision whether to accept the return or not.

Some of the interviewees also giving details on the communication method whether verbally or electronically between different departments in the return process.

I10: The process is in hierarchy order which mean each departments have their task and finishing the task to pass to next department. We normally transfer the message verbally and form will be fill out with details and pass to next department.

So, the themes of collaboration between different departments in the return process can be observed through the interviews with different omnichannel company experts.

Besides that, the influences of task environment elements also had shown in the interview with the employees from omnichannel firms. They had explained the role of these external elements in the reverse logistics system. The common themes that grouping in the task environment factors are supplier, customer, regulator, and competitor. In particular, all interviewees had mentioned the existence of a reverse logistics system to comfort with customer requirements.

Supplier

The role of suppliers also had been mentioned by the interviewees in the reverse logistics system. 10 of 11 interviewees had agreed that the reverse logistics system is interrelated with the supplier of their company. For instance, they had highlighted that the reverse logistics system had been always linked with suppliers.

I1: we will follow the supplier return policy. We will return the goods to our suppliers. We will make sure the returned goods in good packaging. After that, we will inform our supplier and they will come along with their lorry. Count down will be done before return to the suppliers. They will issue a GRN for us and then as soon as those returned goods arrived at supplier warehouse. After that, they will provide us a CN.

One of the interviewee had mentioned that good relationship with supplier is important in a good reverse logistics management. The relationship could be enhancing through a communication between omnichannel companies with their supplier.

I1: It is important to maintain a good relationship with our supplier in a good return management. It can help to maintain a two-way communication between supplier with our company.

Their company shares the feedback of end-users with the supplier to improve their products. Companies that integrate with suppliers could ensure the demand of customers can arrive at the supplier which can ensure proper planning of supplier production. Some of the omnichannel companies will send back the returned products to the supplier to find the root cause of returns.

I7: they (supplier) will also need to know issue of the products so they need us to send back to the headquarter. Basically, they (supplier) just want to check what is the issues behind to ensure the quality problem.

Another choice would be the omnichannel companies will diagnose the reason of returns and discuss together with supplier for a comprehensive solution.

I10: When the customer returns the good to us, these mean we can understand their satisfaction and any weakness that we need to be improve. For example, bottle of shampoo broken during the delivery process return by customer... If the return cases related to quality issues, we will highlight and notified the supplier to make sure them have improvement and solution for these.

Besides that, most of the omnichannel companies have made a contract with their supplier in the responsibility of handling returned goods. Some of the suppliers will handle the returned goods by themselves while some of the companies need to handle the returned goods on their own. By following the agreement on the contract, the employees in the company could follow the return procedure that had been agreed upon by both parties. So, both parties can seek benefit maximization by aligning the return process in the related functional department.

I6: We have different agreement with different suppliers. Some of the suppliers accept good return and they willing to bear for the cost that incurred for repair or dispose by themselves. Some of them are not. So, it is depending on the agreement that had been signed between Amway and our suppliers.

Hence, the theme of supplier has emerged in the reverse logistics system of omnichannel companies.

Customer

From the interviews, the themes of customer can be observed from all the interviewees. They had frequently mentioned customers as the main priority in the reverse logistics system. They emphasized that the effective reverse logistics process would improve customer service. So, they need to ensure the return process to be responsive and agility to boost the confidence of customers. For instance, omnichannel companies need to process returns effectively for refund or replacement.

I02: For the collection step, we aim to done the collection within 1 days. The next day, we must had been deliver to our customers as long as there are not trouble. If not, we may face complaint from our customer due to our inefficient ... We need to make sure our return process is efficient and effective that only our customer will be satisfying with our service.

By using the effective reverse logistics system, omnichannel companies also hope to increase customer loyalty thus boosting the sales opportunity.

I01: Having these good return management system, we may provide the best and good customer service to our local customer. When our local customers are satisfied with our customer service, then they will become more loyal to our company. Our company performance also will be keep going up by boosting the sales.

Omnichannel companies also aim to maintain a good relationship with customers by using a good reverse logistics system.

I07: Most of the return management is depending on how we want keep the good relationship with our customers ... What we looking and priority would be maintain and improve the good relationship with our customers.

Besides that, some omnichannel companies are offering liberal return policy to customers which allowing for return without reason. The liberal return policy would stimulate the sales volume which customers are more willing to purchase from the company. Moreover, omnichannel companies are offering other types of customer-driven return policy such as a full refund policy or free return cost (Janakiraman et al., 2016).

I04: return policy is very important. If company could have a good return policy, company could build a good relationship with customers. For example, our company respond to those manufacturing defects products. We need to proceed it as soon as possible and customer will satisfy and having a good impression on our company.

Interviewees also argued that returns are unavoidable and all the companies are providing a certain warranty period for customers to return those defect products or unwanted goods. In particular, one of the omnichannel companies providing a nearly unlimited timeframe of the warranty period as long as the product expiry date is more than six months. Customers will be satisfied and confident with the quality assurance that provides by omnichannel companies.

I06: Customers can bring their returned items to our counter and our staffs will verify for the products to make sure that the products meet the two requirements as mentioned which is the consumption cannot be more than 80% and expiry date must more than six months... return policy in Amway is help to grow the new market, new buyer and new user which is very benefit to the company.

Furthermore, interviewees also had stated that their company design the return process which convenient for customers. For example, customers can choose the returns method which is more convenient and easier such as return in-store or pick up by courier. The convenience of reverse logistics systems would be enhancing customer satisfaction.

I11: After the return request had been approved, there will be return option for customer to choose. Customer can either choose courier pick up or drop off at courier office. Besides that, customers also can choose drop off at preferred location which is convenience to them.

The element of environmental friendly also emerged in the reverse logistics system as one of the interviewees mentioned their company not providing the return policy and return procedure in hardcopy while their customers can search through their library system. The interviewee had mentioned these steps could enhance the objective of eco-friendly in their company. Numerous researchers had mentioned that companies implement eco-friendly strategy that pressuring by customers (Huang et al., 2015).

I09: In order for environmentally friendly, we are providing online manual which is easier for customers to download it from our online channels.

The objective of these omnichannel companies is to match with the customers that concern about environmental protection. By practicing eco-friendly objective, omnichannel companies could enhance their reputation as an eco-friendly company. Hence, rich descriptions provided by interviewees had given a focal point on the themes of customer.

Regulator

7 of 11 interviewees argued that the regulator plays a role in the reverse logistics system of their companies. They recognize the requirement of regulators when planning for the reverse logistics process. In the return process that needs to be cross-border which deliver to other countries, they aware of the difference of declaration in the custom for returned products. Companies can waive duty and tax when export or import when categorizing the goods as returned goods.

I08: ... implementing a convenience return process is difficult when international border crossing is involved. We need to understand the complexity of bringing and sending goods which include custom

clearance, duty paid and paperwork filling. All these process are take time and money. Of course. It is essential for a company to cooperate with government in the return process. It does gain goal of producing sustainable long value creation.

However, some of the companies rather pay double tax as the process of returned goods is more tedious.

I07: In the custom declaration, there is actually a session where we can waive for duty charges and SST in the option of send back to warranty and repair as well. However, we need to show that the items will be return back to the customer for fulfil the particular options. So, custom there will ask for airway bill number and documentation. Sometime, it is a little bit tedious to go through all this process so we will do a normal declaration instead of declaration for returns. We rather paying for double tax and duty.

Besides that, some of the interviewees also had mentioned the consumer protection law of Malaysia. They understand that returns are necessary in their companies to protect consumer right. They using the law and regulation listed in the consumer protection law in their reverse logistics system as a guideline for duration and type of returns.

I10: there is consumer right regulation or certain law that protect consumer right. They have the right to return the goods and ask for replacement. The regulatory or government will set up a specific criterion to help us to justify the return cases whether it is acceptable or totally unreasonable that we can reject our customer. If the return case is unreasonable, the standard that set up by government can help us or vendor to protect ourselves.

Moreover, one of the interviewees had mentioned that their company is following the law and regulations when disposing of the returned goods. Their company had assigned the authorized third-party service provider to dispose of those returned goods. They had emphasized that they do not want to neglect the rules and regulations set by the government so they appoint the authorized third party in the dispose task. Their reverse logistics system is influenced by the Solid Waste and Public Cleansing Management Bill 2007 (Khor & Udin, 2012).

I06: After shop received for the returned goods, we will dispose the returned goods followed government laws that had been set. For every returned good that we received, we actually dispose it by our third party. We had to follow the rule and regulations that had been set by Malaysia. We had to assigned a third party to conduct the dispose on behalf of Amway. These is to ensure rules and regulations that had set by government will not be neglected.

All of these testimonies had shown that the reverse logistics system in omnichannel companies is to recognize and react with the themes of regulator.

Competitor

7 of the 11 interviewees had shown that the reverse logistics system is interrelated with competitors. They mentioned the application of reverse logistics as a tool or a competitive advantage to compete with other companies. For instance, the reverse logistics system had become more important for those companies in the intense competition. They applying an effective reverse logistics process to compete with other companies.

I1: Besides that, having these good return management and company can stay competitive in the market compare with other competitors.

These omnichannel companies also try to using a reverse logistics system to satisfy customer. By using the effective reverse logistics system, they can avoid customer switch to other companies.

I2: If we fail to make our customer satisfy, they (customer) may switch other company. We try to improve our service to fulfil the requirement of our customer for ensuring they don't complaint us. Only our service is satisfying then reputation of our company can be improve Nowadays, the information sharing is too easy through the internet which the negative news can be damage our company reputation.

One of the interviewees had mentioned the omnichannel companies are using reverse logistics system as a weapon to fight against other competitors.

I6: it will be very good bullet point for Amway when completing with other competitor as we are direct selling company.

A good reverse logistics system also describes as a part of customer service. If reverse logistics management is worse than competitors, then the market of companies will reduce.

I11: the return process had been a part of customer service. Customer may tend to switch to other company if they dissatisfy with our customer service. For example, the return process is less efficient, low respond and hassle and the customer will be disappointed with our service. These will cause customer will not buy product from our company. As compare to competitor, we try to improve our return management and return process which trying to be more responsive and less hassle.

However, some of the interviewees are not agreed but emphasized the reverse logistics system of different companies is similar. This is because the company will try to improve their reverse logistics management.

I10: The return management, procedures, flow are more or less is the same in the market. It is depending on how we do it and how we handle the case. Everything have room of improvement. When we found any weakness that need to boost, then we need to react fast and solve it.

Overall, these had shown that omnichannel companies are recognized and react to the element of competitor. The overview of identified themes was summarized as table below.

Table 2

Summary of Thematic Analysis (n=11)

Thematic Analysis											
Themes Identified /Interviewees	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11
<u>Top Management Support</u>											
Attitude				1	1				1		
Decision Making		1	1		1			1		1	
Commit Resources		1				1					1
Involvement			1	1	1			1	1		
<u>Formalization</u>											
Standard Operation Procedure	1	1		1			1	1	1	1	1
Return Policies	1			1		1	1	1	1	1	1
Goal setting		1					1	1		1	1
<u>Flexibility</u>										1	
Product		1	1			1	1	1	1	1	1
Volume		1	1				1				
Equipment		1	1					1			
Labour			1			1					

Channel Scheduling		1	1	1	1	1	1	1	1	1	1
<u>Information System</u>											
Tracking	1	1		1		1	1	1	1	1	1
Communication Tool		1					1			1	1
Data recording		1	1	1		1	1	1	1	1	1
<u>Collaboration</u>											
Process flow through different departments	1	1	1	1	1	1	1	1	1	1	1
Information sharing	1	1							1	1	1
Process coordination		1			1	1	1	1	1	1	1
<u>Supplier</u>	1										
Return policy	1					1				1	
Contractual agreement			1	1		1			1		1
Integration & communication	1	1		1			1	1	1	1	1
<u>Regulator</u>											
Law Regulations		1				1	1	1		1	1
Environmental Issues		1									
<u>Customer</u>											
Liberal Return Policy				1		1				1	
Customer service	1	1		1	1	1	1	1	1	1	1
Environmental Issues		1							1		
<u>Competitor</u>											
Intense Competition								1			
Compete with other competitor	1	1	1	1		1		1		1	1
Imitating strategies								1		1	1
<u>Improved omnichannel firm performance</u>											
Cost Reduction		1	1	1				1	1	1	
Environmental regulatory compliance						1					
Improve customer relationship	1	1	1	1	1	1	1	1	1	1	1
Improve profitability	1					1		1			
Reduce inventory cost & investment									1		
Improve reputation		1	1	1		1	1	1	1	1	1

CONCLUSION

Based on the interview, firm factors that had been described by interviewees including top management support, formalization, flexibility, information system, and collaboration. From the organization perspective, the task environment factor is another key to enhance omnichannel firm performance. These omnichannel organizations conform with the task environment actors which could be providing benefits for their firm performance. From the interview with omnichannel firms' experts, they had mentioned the existence of external influence into the reverse logistics system. Omnichannel firms can survive in the market and increase their performance by identifying and

correspond to these external influences. Overall, the construct of reverse logistics in omnichannel companies developed from the interviews as shown below.

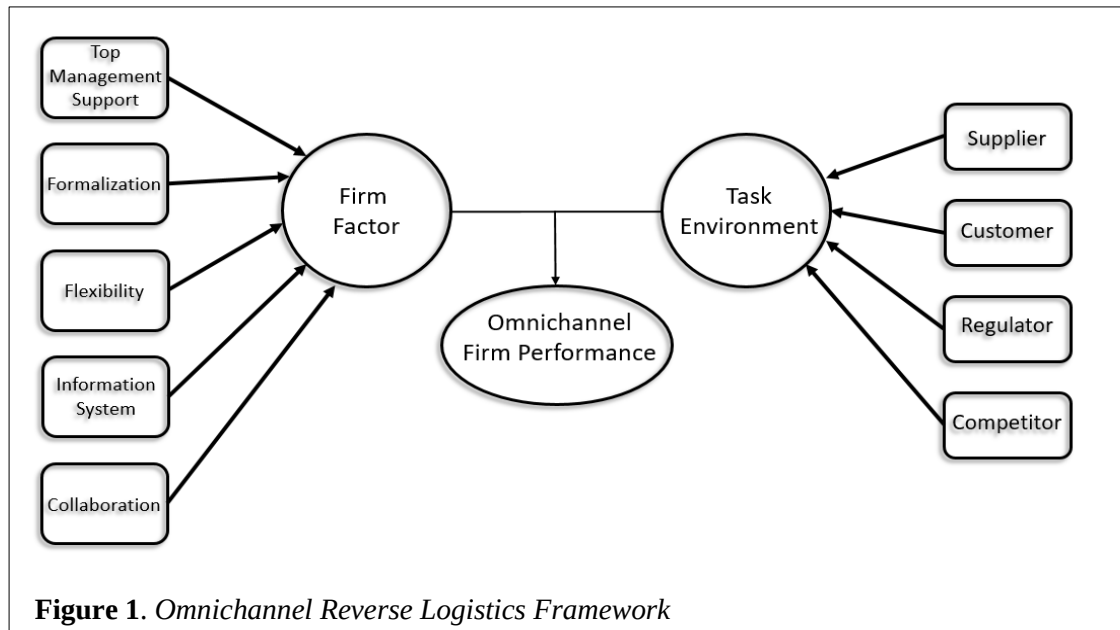


Figure 1. *Omnichannel Reverse Logistics Framework*

The results of the qualitative phase suggest that enhancements in the reverse logistics system from both firm and task environment factors offer benefits to omnichannel companies. The degree of effectiveness in firm factors and the degree of conformity in task environment factors would influence omnichannel firm performance. By referring to the omnichannel reverse logistics framework, companies could implement proper system to manage products returns. Hence, companies able to save cost and increase customer satisfaction through smart reverse logistics system. Therefore, the omnichannel reverse logistics framework would be effective and important to all companies that adapting omnichannel strategy. In particular, omnichannel business environment has become a new normal of post COVID-19 pandemic (Leu & Masri, 2021).

From an academic point of view, this research fortifies the previous reverse logistics research finding by integrating the omnichannel situation with the reverse logistics system (firm and task environment factors) to gain further understanding of the advancement of reverse logistics and more accurately figure out the influence of reverse logistics in omnichannel. From this perspective, the omnichannel performance is affected by reverse logistics factors, namely firm and task environment factors. According to the literature on reverse logistics, most studies evaluated the operation side of the backward flow (Bernon et al., 2011) and a similar approach was used in studies on reverse logistics in an omnichannel context (Bernon et al., 2016; Hübner et al., 2016). Many studies have been found to discuss the management aspect of reverse logistics but not in an omnichannel business environment. Hence, this study investigates the relationship between reverse logistics and omnichannel as it still remains understudied.

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