

Future Trends Report

Based on Analysis of the Team's Chosen Community / Organisation in Mid-Term and Final Evaluation

Community / Organisation Studied: Retail and Shopping Industry

STEP 1. Identify Challenges

Read the Future Scene carefully and generate ideas for challenges, concerns, and possible related problems. Choose the 5 most important challenges and write them in the space provided. Include applicable research with appropriate in-text citations.

Challenge #1: Queuing

According to an article by It Still Works, queuing problems occur “when the service doesn't match the level of demand, for example when a supermarket doesn't have enough cashiers on a busy morning”.

Usually, during a major sale, such as the Great Singapore Sale, many shops will have discounts of up to 50% or even 70%. This will attract huge crowds of customers to the shops, resulting in an overwhelming number of customers for the few cashiers to serve. Thus, due to a lack of cashiers, long lines will be formed and many customers will be left in line for as long as 1 hour, wasting their time. This may deter consumers from entering the store as they do not want to be kept waiting in line, resulting in a loss of business for the shop.

(Sherman, n.d.)

<https://itstillworks.com/queuing-problem-12216226.html>

Challenge #2: Scams

According to the Australia Competition and Consumer Commission, “Scammers use the latest technology to set up fake retailer websites that look like genuine online retail stores...Many of these websites offer luxury items such as popular brands of clothing, jewellery and electronics at very low prices. Sometimes you will receive the item you paid for but they will be fake, other times you will receive nothing at all.”

As quoted above, the price of items is an extremely important factor that most, if not all, consumers take into consideration before buying a product. Other than this, convenience is also a large factor. Hence, most consumers would search for their desired product online first as they do not want to waste their time going to physical stores. Some online websites sell products at impossibly cheap prices. However, some people will still be tricked by the deceptively attractive price of the product and buy it without a second thought.

Furthermore, an article by YourStory states ‘The biggest problem while buying things online is that you have no guarantee of a product's quality. Reviews are not always reliable and all the research can't assure you of a product's quality; fraudulent sellers who intentionally mislead customers to increase sales are the prime reason for faulty/sub-par products being sold online.’

This article suggests that nothing written or stated online can be confirmed as the truth, as large-scale fraudulent sellers (such as companies) may take the time and effort to write good reviews and ratings about their products so as to attract customers to purchase their products, leading to yet another scam.

Later on, the article also mentions ‘Unless you're buying from one of the established e-commerce companies, it's important to go through the return policy while making a purchase. But most sites have vague return policies that can leave you with a low-quality product and no way to return it. The same applies for guarantees, as most sites don't clearly mention what the policy is for a product and then refuse to carry out replacements if you receive a damaged product.’

Sometimes, the stores on the less established e-commerce site sell their products at cheaper prices, hence attracting customers to purchase it from them instead from one on a more established e-commerce site. However, these shops may be out to scam consumers, and since most shoppers do not go through the return policy while making a purchase, many of them will get scammed and end up not having any means to get a refund or return the product to the seller. Furthermore, many sites have extremely vague return policies, as quoted above, allowing the seller to get away with his or her scamming.

("Online shopping scams", n.d.)

<https://www.scamwatch.gov.au/types-of-scams/buying-or-selling/online-shopping-scams>

(Mittal, 2017)

<https://yourstory.com/2017/04/common-problems-online-shopping>

Challenge #3: Shipping Time

According to talk-business.co.uk, it is said: "According to [one study](#), nearly 16 % of users abandon their cart because the delivery was too slow."

From the study conducted by Baymard Institute, we can see that shipping time poses a great factor in making the decision to buy a product. For example, if a person is buying a product for an event or as a present for a person's birthday, and the product shipping time does not arrive early, it will be a waste of time and money, resulting in the customer cancelling it. Also, one would want to try a product out as fast as possible.

Although buying online may sometimes be cheaper, the time taken for the product to reach will make a customer not want to buy since they might as well go buy at a physical store.

("Dealing with shipping time as a marketing problem | Talk Business", n.d.)

<https://www.talk-business.co.uk/2017/11/14/dealing-shipping-time-marketing-problem/>

Challenge #4: Excessive Number of Credit Cards

According to Investopedia, having a lot of credit cards can hurt your credit score under quite a number of conditions.

Due to the excessive number of credit cards you own, you will have so many payments that you will not be able to keep up with all of them, which might be quite a hassle. Your outstanding debt may also thus be more than 30% of your total available credit. Generally, a good credit utilization ratio is less than 30%, and the lower your balance relative to your limit, the better your score. Some other conditions that may affect your credit score is that you have added too many cards in too short a time, and that you lack diversity in your credit account.

(Best, 2018)

<https://www.investopedia.com/articles/personal-finance/082516/why-too-many-credit-cards-can-hurt-your-credit-score.asp>

Challenge #5: Foreign Currency

Different nations use different currencies, for example, the Japanese uses Yen while the British uses Pounds.

When travelling overseas, we will thus have to change our money to the appropriate currency before setting off. According to our survey, many have responded that a lack of foreign currency will be extremely troublesome when shopping overseas. If travellers have used up most of their foreign currency in cash, they would find it difficult to purchase goods or make payments as they would have to resort to using their credit cards. Paying for items using credit or debit cards can be a hassle to do so in less technologically-advanced places like night markets where more often than not, cash is the only form of payment accepted. Furthermore, many banks charge overseas transaction fees of up to 1%, resulting in them spending unnecessary money when shopping.

Foreign currency doesn't just pose a problem to us when we shop in physical retail stores overseas. In fact, it may affect us when we're shopping online too. According to an article by ZDNet and a recent survey by E4X (the American global payments provider owned by Cambridge Mercantile Group), 'the majority of online shoppers *prefer* local currency pricing and are *adverse* to USD-only pricing — yet retailers large and small continue to leave this unaddressed'. Most of us have come across a product online that we really liked, yet after seeing the price in an unfamiliar currency, many of us would have hesitated, and wondered how much the product actually costs, whether the shop will actually ship to us, which country the store is located in, etc. This sense of unawareness may ultimately deter us from buying that product, leading to us not getting our desired product and the store losing a potential customer.

(Nusca, 2013)

<https://www.zdnet.com/article/online-shopping-unease-with-foreign-currencies/>

STEP 2. Craft the Underlying Problem

Using the challenges listed in Step 1, identify a problem of major importance to the chosen community / organization in the future. Write your Underlying Problem making sure your question clearly explains the action that will be taken and the desired results/goal of that action.

Incorporating Challenge(s) #1, 2, 3, 4, and 5

Underlying Problem:

Given that there is a large shift in consumer preferences regarding their shopping experience towards convenience in their lives, it appears that physical stores may not be able to keep up with the consumers' demand for more convenient shopping. How might we improve current features of physical retail shops so as to allow it to keep up with the convenience of online shopping while still retaining the high levels of reliability provided, resulting in higher customer satisfaction levels in the years 2030 and beyond in Singapore (FSP)?

STEP 3. Produce Solution Ideas

Generate solution ideas to the Underlying Problem in Step 2. Choose the 5 most effective solutions and write the elaborated ideas in the space provided. Include applicable research with appropriate in-text citations.

Solution #1: Cryptocurrency

We will lobby the UN to provide and promote a common worldwide currency to be used in the year 2030. With such a solution, consumers will not have to worry about issues such as sufficient foreign currency when overseas or have to convert money when browsing foreign shopping websites to import good, which in general is a frustrating and inefficient use of time. The solution will be implemented in certain countries first, eventually becoming a global one, after a few years. This process will take an estimated 10 years, to include all of the world's countries.

Solution #2: Online Wallet

We will push for the Singaporean government to implement an online wallet for all major shopping companies in Singapore, e.g. Fairprice, Uniqlo. This solution will prevent consumers from having to carry their wallets around and reduce time fumbling at the cashier for the correct credit card, it will also reduce the likelihood of getting pickpocketed, which can cause large potential losses. Consumers will be able to access their online wallets from their smart devices anytime they want as the system will run 24/7. This solution will be implemented in one year, giving companies enough time to adjust.

Solution #3: 'Walk In-Walk Out' System

We will implement a system that allows you to take an item off the shelf and walk out the store. At the entrance of the store, there will be sensors that detect what item you are taking and will automatically deduct it from your online wallet, should Solution#2 be implemented. This allows the customer to have greater convenience as not only is there no need to queue up to pay, but also, the store can be open 24/7 as constant manpower to run it is not needed. This solution will be implemented within 2-3 years, to give enough time for most physical stores to install this system and adapt to it.

Solution #4: Delivery Drones

We will work together with online shopping companies to program and implement delivery drones. They will be sent from warehouses carrying the packages and will deliver it straight to the clients' front door. This gives the client the greatest convenience, as they would not need to leave their homes at all. These drones will be programmed as one big system, allowing for lesser mid-air collisions and smoother air-traffic.

Solution #5: Goods-Return Policy

We plan to collaborate with all the major Singaporean companies in their respective fields e.g. Uniqlo, FairPrice, etc., to improve their Goods-Return Policies, to satisfy certain requirements (including but not limited to minimum return period, full refund for all products in working condition etc.) so as to better serve consumers, giving them more reassurance when they buy products. This extra reassurance will help to satisfy customers as they will not have to worry about the suitability of their products. We aim to finish contacting all major companies in a 6-month timeframe, giving them another 1 year to adapt so that the project will be finished by mid-2031.

STEP 4a. Select Criteria

Generate criteria to determine which solution idea does the best job of solving your Underlying Problem and/or addressing the Future Scene situation. Select the 5 most important criteria for measuring solution ideas and write them in the spaces provided.

Criterion #1: Feasibility

Our first judging criteria is the feasibility of the solution. The feasibility of the solution will determine its success and ease of implementation. The feasibility of the solution is how easily it can be done. A feasible solution would be one that can be easily implemented, yet still works effectively. If a solution is difficult to implement, it will hence be harder to adapt to new changes and waste a lot of time and effort.

Criterion #2: Cost-Efficiency

Our second judging criteria is the cost-efficiency of the solution. A solution's cost efficiency is judged by its cost to its impact ratio. Cost is an important factor to consider as not all solutions are guaranteed to work and if a solution doesn't properly work, will determine how detrimental the impact on the company. A cost-effective solution will ideally be cheap yet very effective.

Criterion #3: Relevance to Theme (Industry 4.0)

Our third criteria would be the relevance to the theme. As it is important for our solutions to fit the theme 'Industry 4.0', we thus decided to include it as one of our 5 factors. Otherwise, it is highly likely that we go off-topic and result in us not targeting the theme.

Criterion #4: Adaptability

Our fourth criteria would be the solution's adaptability. In our ever-changing world and with the development of new technology being ever prominent, it is important for our solutions to be easily edited to suit the situation. If our solutions are fixed and cannot be changed accordingly to the situation in future, it will be a hassle for people to generate new solutions again and waste time, money and efforts in re-creating new solutions. Hence, if our solutions do not adapt to new changes, it will be difficult to implement new solutions and ideas in the future.

Criterion #5: Survey Results

Lastly, our final criteria would be our survey results. The surveys are useful in describing the characteristics of a large population. No other research method can provide this gathering of large amounts of data while ensuring its accuracy sample. Like previously mentioned, the solutions are for the consumer's benefit, and we should take into account what they would prefer, so as to best cater to their needs. Therefore this criterion is judged on how well the customers like the solution. If the survey was not done, we would not have known the society's preferences and hence, it would prove useless if most people had disagreed with our solutions.

STEP 4b. Apply Criteria

List the solution ideas from Step 3 on the grid. Use each criterion to rank the solutions on a scale from 1 (poorest) to 5 (best). The weighting for one important criterion may be doubled if necessary.

Step 3 Sol'n #	Solution Idea	Criteria					Total
		1	2	3	4	5	
-	Importance	5	3	1	3	2	-
#1	World Currency	3	4	5	5	3	58
		3x5 =15	4x3 =20	5x1 =5	5x3 =15	3x2 =6	
#2	Online Wallet	4	4	5	5	2	57
		4x5 =20	4x3 =12	5x1 =5	5x3 =15	2x2 =4	
#3	Walk In-Walk Out System	5	3	5	3	3	60
		5x5 =25	3x5 =15	3x1 =3	3x3 =9	3x2 =6	
#4	Drones	5	3	3	3	4	57
		5x5 =25	3x5 =15	3x1 =3	3x3 =9	4x2 =8	
#5	Goods-Return Policy	5	3	3	4	5	63
		5x5 =25	3x5 =15	3x1 =3	4x3 =12	5x2 =10	

("Decision Matrix Analysis: Making a Decision by Weighing Up Different Factors", n.d.)

https://www.mindtools.com/pages/article/newTED_03.htm

Best Solution Based of Decision Making Matrix:

#5 Goods-Return Policy

However, we are merging Solutions #1-#4 (COWD), which will work hand-in-hand with each other (further details to be stated in Action Plan below) to form the best solution which best answers our Underlying Problem – to improve current features of physical retail shops so as to allow it to keep up with the convenience of online shopping.

STEP 5. Develop an Action Plan and Evaluate its Feasibility

Develop your top-scoring solution idea into an Action Plan. Thoroughly explain how the Underlying Problem is solved, how the plan will be implemented, and how the community / organisation will be affected. Explain how this Action Plan is feasible with secondary research consulted, preferably also with primary research (feedback from chosen community / organization)

Action Plan derived from Solution #1, 2, 3, 4

We, Shopaholics, would recommend to the United Nations(UN), major physical stores (companies with 500 employees or more), such as UNIQLO, major online and delivery companies (number of employees is 500 or more), such as Amazon, to implement COWD (Cryptocurrency | Online Wallet | Walk In-Walk Out System | Drones) to cater to clients, customers and the general public. The cost of the implementation will be borne by the companies and the UN themselves.

COWD will accomplish the following:

- a. Lesser time consumption of customers of physical stores due to the absence of queuing. (W)
- b. Lesser waiting time for online clients. (D)
- c. Greater convenience for travellers as they would not need to convert currency. (C)
- d. Greater convenience for customers of physical stores as stores are open 24/7. (W, O)
- e. No economic fluctuations of countries. (C)
- f. No hassle of carrying physical currency or credit cards. (C, O)
- g. No chance of pickpocketing due to the absence of physical wallets. (O)

However, COWD is expected to face the following challenges. As a result, we have thought of respective solutions and have altered the action plan accordingly:

- a. Major companies and/or the UN may not consent to the implementation of COWD

(Chao, Cheung, Haller & Lee, n.d.)

<https://www.ibm.com/downloads/cas/NDE0G4LA>

("AI: THE PROMISE OF A GREAT FUTURE FOR RETAILERS", n.d.)

<https://www.infosys.com/human-amplification/Documents/retail-ai-perspective.pdf>

Implementation Timeline

Action Description	Party Responsible	Date Start	Date Due	Resources Required
Propose to United Nations the idea of a Cryptocurrency (World Currency) with its uses, benefits, and strong evidence	<ul style="list-style-type: none"> United Nations 	January 2030	June 2030	<ul style="list-style-type: none"> Emails On-site visits
Propose for major shopping companies to implement the online wallet, and walk in-walk out system.	<ul style="list-style-type: none"> Shopping Companies (number of employees is 500 or more) 	June 2030	December 2030	<ul style="list-style-type: none"> Emails On-site visits
Propose to major online shopping companies and major delivery companies the implementation of delivery drones	<ul style="list-style-type: none"> Major Delivery Companies (number of employees is 500 or more) Major Online Shopping companies (number of employees is 500 or more) 	June 2030	December 2030	<ul style="list-style-type: none"> Emails On-site visits
Period of time for companies to finish their changes to their company for all companies contacted. The progress is to be monitored consistently by the Board of Directors of each company to ensure the project will be completed in due time. We will also be monitoring the general progress every annum.	<ul style="list-style-type: none"> Shopping Companies 	Date Contacted	December 2036	<ul style="list-style-type: none"> On-site visits

Addressing the Underlying Problem

With the introduction of cryptocurrency, purchases overseas and in overseas online stores will be made much easier without the need to convert currency before travelling. Working hand-in-hand with cryptocurrency, an Online Wallet can be introduced to allow transactions to be conducted in a swift and efficient manner online, allowing consumers to check their monthly spendings and budget accordingly. With the ‘Walk In-Walk Out’ system, the long queues to pay for products will be eliminated completely and this will save precious time. Furthermore, because of drones, online shopping will become even more convenient due to the shortened waiting time. With that, our solution, COWD, has addressed our Underlying Problem.

Potential Assistors

We have identified 1 potential assistors(s) to our solutions.

a. General Public (Majority)

It is shown that 60.3% of people think that a World Currency is convenient (Fig. 1), 86.7% think an Online Wallet will impact them positively in their shopping experiences (Fig. 2), 77.3% will use the 'Walk in-Walk out' system over current payment methods (Fig. 3), 81.4% feel Drones are efficient on the shipping industry (Fig. 4), and 74.1% are willing to make a purchase from a store online should they have an adequate Goods-Return Policy in place (Fig. 5).

On a scale of 1 to 5, how convenient do you feel a 'World Currency' will be?

189 responses

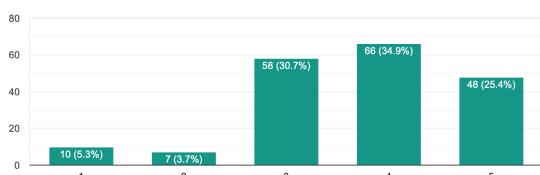


Fig. 1 (Public Opinion on World Currency)

On a scale of 1 to 5, how much do you think an 'Online Wallet' will impact you positively in your shopping experience?

189 responses

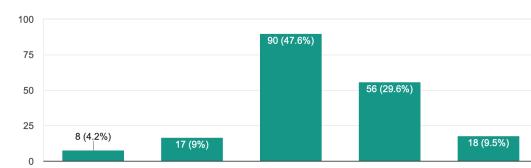


Fig. 2 (Public Opinion on Online Wallet)

On a scale of 1 to 5, how likely would you use the 'Walk in-Walk out' system over current payment methods?

189 responses

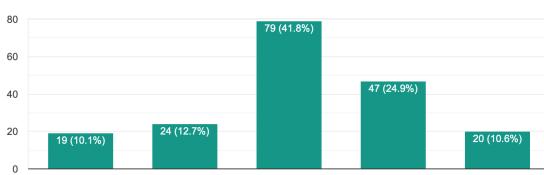


Fig. 3 (Public Opinion on 'Walk in-Walk out')

On a scale of 1 to 5, how impactful do you feel drones are on the shipping industry?

189 responses

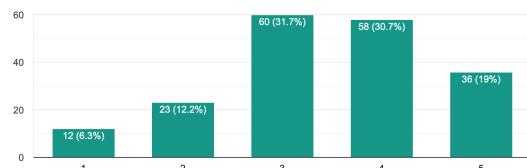


Fig. 4 (Public Opinion on Delivery Drones)

On a scale of 1 to 5, how much more likely will you be willing to make a purchase from a store online should they have a goods-return policy in place?

189 responses

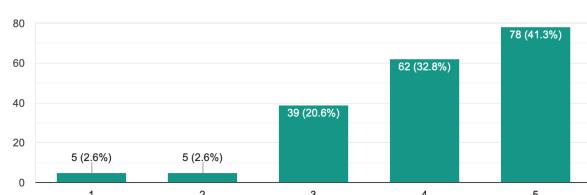


Fig. 5 (Public Opinion on Goods-Return Policy)

Potential Resistors

We have identified 3 potential resistors to our solutions.

a. Shopping Companies

Shopping companies may not be happy with the fact that they have to install these new payment methods as the cost could mount up to quite a large amount, especially for those companies which have multiple stores and thus have to split their profits.

b. Employees

Many employees will be left jobless after the implementation of these new payment methods, such as cashiers, and will not be happy about losing their stable source of income, especially since those working as cashiers are generally from lower-income families.

c. General Public (Minority)

Since a large number of people will be left jobless after the solution, there will be more competition for jobs, and those looking for jobs will be unhappy about that. Some people may also get extreme and launch violent actions towards these companies, which can lead to damaged property and the potential loss of life.

We have identified 2 potential issues with our action plan and our solution for these issues are presented alongside them

Potential Problem 1

- Cost & Feasibility

Due to a large number of expensive sensors and technology needed in this action plan, a large cost will be incurred for the companies who decide to implement it. Hence, SMEs and smaller-scale physical stores may not have the means or budget to implement it, and the UN may not necessarily wish to go ahead with an action plan with such a high cost.

Furthermore, many countries are still developing, and the UN is fully aware of that. Developing countries may not have the budget and flexibility to fork out such a large sum for our action plan. Even if these countries can do so, the rest of their economy would be disrupted as a result, and it may take an even longer time for them to stabilise their economy. As a result, it may not be feasible for COWD to be implemented in these developing countries, and the UN may not fully approve of our plan.

Solution 1

- This action plan will only be applicable to all major stores worldwide. However, should smaller-scale shops or SMEs want to join in in this plan, they are more than welcome to do so. These stores will adhere to the given action plan. During this phase of the plan has been carried out, countries should allocate a budget to partially fund the rest of the shops after this phase ends, hence allowing SMEs and smaller-scale shops to benefit from this plan too.

Potential Problem 2

- Technological concerns

Technology may not be 100% accurate. Even after numerous successful trials, programmes and codes may still have some bugs and issues. An online wallet, walk in-walk out system and programming of drones will require extensive coding and advanced technology, and errors are prone to occur, affecting clients greatly. For example, a glitch which deducts millions of dollars from a client's online wallet will cause the consumer a great loss, and he or she has to great trouble to retrieve the lost money. At the same time, programmes and software are vulnerable to hacking, causing consumers to be slightly hesitant to use them. Since this plan is going to be implemented worldwide, it has to maintain high levels of security, while still ensuring consistent and accurate performance.

Solution 2

- During the case of a glitch, the relevant affected parties will receive a small compensation fee from the company which creates the code. AI and machine learning can be implemented to learn from previous bugs and issues and prevent them from happening again, hence allowing for a close-zero chance of error as time passes. Strict penalties can be imposed for hacking into this system, and hackers can be employed to test out the code and find out the vulnerabilities in it.

(Siciliano, 2019)

<https://www.thebalance.com/how-has-hacking-evolved-with-technological-advances-1947546>

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Cite the resources you consulted using the APA format.

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