

Future Trends Report

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

Community / Organisation Studied: **Micro Retail 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:

Micro Retail Enterprises such as small roadside mama shops will have a tougher time keeping up and competing with big companies in terms of efficiency. Hence, they will start to close down due to the lack of business. Artificial Intelligence is getting more efficient than humans. Currently, there are already any big retail companies that are using artificial intelligence for some of their jobs.

Research:

1. One such example is Amazon Go, where shoppers check in to a physical store via app, then sensors throughout the store track which items they put in their basket, thereafter the customers can just leave, Amazon automatically charging them online after they leave the store.

Matt McFarland, C. (2018). I spent 53 minutes in Amazon Go and saw the future of retail. Retrieved 6 August 2019, from <https://edition.cnn.com/2018/10/03/tech/amazon-go/index.html>

2. Habitat is Singapore's first automated supermarket. According to HonestBee, the robotic check-out and collection system can handle 300 customer orders per hour.

Challenge #2:

Micro Retail Enterprises such as small roadside mama shops are unable to afford newer technologies and will lose out on many forms such as advertising and extra convenience and will ultimately be shut down forever.

Research:

1. One example is that of the 7 mama shop owners we interviewed, all said that they will most likely not be getting new technologies as they do not have the money to do so.
2. The orange Kiva "startup kit" of robots costs \$1 million to \$2 million.

Challenge #3:

Workers who are unable to understand new technology will cause their Micro Retail Businesses to lose out on them. Some of the people who work at the Micro Retail Business are not properly educated and may be

very old, unable to understand anything with ease and will hence be unable to use the new technology. Therefore losing business with the younger generation.

Research

1. The mama shop owners we interviewed stated they receive little or no education at all
2. According to the US Pew Internet research centre("Wired Seniors", 2019), 77% of older people would need someone to help walk them through the process of setting up a new device.
3. According to Ian Hosking, an expert in design for the elderly at the University of Cambridge's engineering design centre, he stated that, "There are some very tech-savvy older people around, but there is clearly a large cohort of people who feel excluded by technology. They find it a bit impenetrable."

Challenge #4

Most MRBs choose not to adopt these technologies due to cyber security. MRB owners are afraid as large corporates are already facing this issue and they are scared that small companies' data like their will be taken away even more easily. They will also have a high chance of closing down when one occurs.

Research:

1. The SingHealth's data breach. Hackers stole the personal data of 1.5 million patients and the outpatient prescription details of 160,000 people, including Prime Minister Lee Hsien Loong.
2. According to thesslstore.com, small businesses are a favorite target of cyber criminals — cyber attacks were up 424% in 2018
3. According to thesslstore.com, it cited that Juniper Research's 2018 study says that small businesses spend less than 500 dollars on consumer-grade cyber security products each year
4. thesslstore.com also stated that 83% of such businesses lack the funds to deal with the repercussions of a cyber attack.
5. According to the Singapore Business Review, digital upgrade failed for 3 in 4 SMEs.

Challenge #5

MRBs owners are not aware of such digitalisation and thus are not taking any action to keep themselves in the game. Thus this can result in them having a lack of efficiency compared to larger scaled companies who can make use of digitalisation. Therefore having fewer customers who will be attracted to their stores.

Research:

1. In a recent survey by the Association of Small and Medium Enterprises (Asme), only 57 per cent of SMEs polled are aware of "digital transformation" solutions. In the same survey, only 56 per cent of SMEs polled have strategies in place for digital transformation.

2. Only one in four SMEs noted success in their digital implementation and even among the best achieving SME leaders with more than 20 employees, only half saw some level of success in their digitalisation efforts.
3. “Digitalization ... increases process efficiency and improves data transparency, and of course, it should help boost your top line,” explained Georg Tacke, CEO, and Annette Ehrhardt, Global Head of Communications & Marketing Senior Director, Simon-Kucher & Partners.
4. He also stated, “If you operate an online platform, then your company may already be 80 percent digitized, and you can gain more efficiency or create more customer value by going the remaining 20 percent of the way.”

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,#5

Given that there is a high probability that retail companies will invest in new technology, small retail businesses are unable to buy new technology and people who work there are poorly educated, people working in Micro Retail Businesses (MRB) and their businesses are threatened. How might we help people working in MRBs such that they have a higher chance of their business surviving in the years 2030 and beyond in Singapore?

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

Drone delivery

MRBs like such Provision Shops can utilise technology like drones, which are already widely used in the present. So future advancements of these drones can enable them to be used for delivery of more bulky and heavy items, which can help the MRBs to combat the influence of the bigger brands' delivery services.

Research

1. In an article by Business Insider, Amazon got the general population interested in drones with the announcement that it has been experimenting with "octocopters," unmanned drones that will supposedly be able to deliver an item to your house within 30 minutes of ordering it. Although it is not possible yet, people are already starting to like the idea of drone delivery.

Solution 2

Community Centres VR booths

Using more advanced Virtual Reality in the future, community centres can make people relive what provision shops were like in the past, so as to give such shops more recognition and spread awareness about their existence, which can help them in marketing in the competition against bigger brands.

Research:

1. According to The Straits Times(ZACCHEUS, 2019), the Bicentennial showcase has already been previewed by more than 10,000 visitors over the past two weeks. Organisers noted that their response has been "extremely encouraging" and that 90 percent of 1,500 people surveyed indicated an increase in their knowledge of Singapore's history, showing the amazing response of the public.

Solution 3

Smart glasses experience, where Smart Glasses have a code in them such that when the user wears it, he will be able to see the progression of the MRBs such as mama shops from the olden days. They will be able to see the shelves transform from the olden treats into the new trendy goods and attract people to go and experience this virtual heritage trail, therefore allowing these MRBs to thrive.

Research:

1. It is also said that Smart Glasses will give an experience of both physical and virtual worlds, something that is part of our solution in order to entice the people to be able to go for the attraction at the MBRs.
2. According to a study form, it is found that the probability of better smart glasses being developed in the future is very high, with big companies like Apple and Facebook wanting to

develop some of their own. This means that better smart glasses will definitely be made and can be rolled out into the solution.

Solution 4

Merger

Micro Retail Businesses can merge with larger corporations such as supermarkets to act as a collection booth for consumers after they have ordered their items online. Supermarkets have the ability to buy many items in bulk, thus causing these businesses to lose out to the supermarkets. With this solution, consumers can now not only collect their items they bought online from these businesses, but the businesses can also now obtain larger stocks of produce and other items to sell to customers who need these items for emergency.

Research:

1. According to Mr Arrulappan Aruldas, a mama shop operator, has been having trouble operating his mama shop. He is currently facing stiff competition from supermarkets as they are able to “buy in bulk” and get these items at a cheaper rate.
2. According to the Singapore Business Review, convenience stores have been losing out as supermarkets keep expanding their variety of goods at lower prices, Maybank Kim Eng revealed. Reflective of supermarkets’ growing dominance, more of them have started to operate 24 hours, especially in heavily-populated estates.

Solution 5

Diversifying of services

MRBs diversifying their services to be able to have more of an even edge in terms of services in the competition against larger and more renowned brands, like having their own delivery service.

Research:

1. According to The Guardian (Coleman, 2019), diversifying the business’ services may be a risky move. However, some businesses have been remarkably successful in the diversification stakes, spotting and exploiting new market opportunities for their products, using their core skills to offer complementary businesses services or simply taking their brands into uncharted territory.

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.

Criteria 1

Cost

Which Solution is the least expensive to implement so that long lasting schemes can be implemented to help these MRBs.

Criteria 2

Manpower

Which solution requires the least manpower to be used so that more money can be used to sustain the MRBs.

Criteria 3

Risk involved (investment wise)

Which solution has the lowest investment needed such that the drawbacks will be the lowest in case of a failure so that the MRBs will not lose too much in case the solution fails.

Criteria 4

Time

Which solution is the fastest to implement so that the MRBs can receive the help they need promptly

Criteria 5

Reliability

Which solution has the highest amount of success rate such it is able to work well for long and continuous periods of time.

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	
#1	Drone Delivery	1	3	1	5	2	12
#2	Community Centre VR booths	5	1	5	2	1	14
#3	Smart Glasses Experience	3	5	4	4	3	19
#4	Merger	4	4	3	3	4	18
#5	Diversifying Of Services	2	2	2	1	5	12

STEP 5. Develop an Action Plan and Evaluate its Feasibility

Action Plan

We, the Ministry of MRBs, together with the Ministry of Culture and Ministry of Technology, will create and distribute glasses that will allow the user to see the transformation and goods of the MRBs, entitled 'Smart Glasses', for MRBs across Singapore to help their business to survive in the years 2030 and beyond in Singapore. These Smart Glasses will help people better understand the usage and history of the place, and help to give these shops the recognition they need to be able to not be ignored and continue to survive in the years 2030 and beyond. Tourists will also be attracted to these places as they are able to provide interesting goods that cannot be provided at larger scale stores and will generate its revenue through tourists. Therefore allowing these MRBs to thrive. Design, production and testing of Smart Glasses will start from 2023 and the nationwide distribution of Smart Glasses will be completed by 2030.

Implementation Timeline

This is our implementation timeline of our action plan:

1. 2023: Parliament decides to implement the production and distribution of Smart Glasses to improve business for MRBs.
2. 2024: Smart Glasses is designed by the Ministry of Technology as well as several partner companies and organisations
3. 2025: Selected MRBs are registered in the servers for the Smart Glasses for a trial-run of 8 to 10 months
4. 2026: Feedback is collected from users and participating MRBs for improvements
5. 2026: Government debates the implementation of MRBs based on user feedback
6. 2027: Smart Glasses (improved version) are mass-produced
7. 2028: Distribution of Smart Glasses begins in certain MRBs, slowly increasing year after year.
8. 2030: Smart Glasses are distributed amongst all mama shops in Singapore via community centres and door to door visits to shops

Addressing our key verb phrase

Given that the Key Verb Phrase in our fundamental problem is “higher chance of their business surviving in the years 2030”, our action plan and solution addresses this since Smart Glasses have a code in them such that when the user wears it, he will be able to see the progression of the MRBs such as mama shops from the olden days. They will be able to see the shelves transform from the olden treats into the new trendy goods. This ensures that the MRBs will attract more people to go the MRBs and thus have an increase in revenue, allowing them to survive and thrive.

Impact & Consequences

The implementation of the Smart Glasses would have a positive impact on the retail industry. Smart Glasses have a code in them such that when the user wears it, he will be able to see the progression of the MRBs such as mama shops from the olden days. Due to this, they will be able to see the shelves transform from the olden treats into the new trendy goods and attract people to go and experience this virtual heritage trail causing more people to go to the MRBs. Hence, they will have an increase in revenue, allowing the MRBs to thrive and allow the retail industry to have an economical increase.

How action plan is feasible

According to a study form, it is found that the probability of better smart glasses being developed in the future is very high, with big companies like Apple and Facebook wanting to develop some of their own. This means that better smart glasses will definitely be made and can be rolled out into the solution.

It is also said that Smart Glasses will give an experience of both physical and virtual worlds, something that is part of our solution in order to entice the people to be able to go for the attraction at the MBRs.

Smart Glasses: Use cases, challenges and future potential -

Feedback of chosen community

From an interview with an IT professional, he thinks that this idea is attractive as smart glasses are a new technology and it can help people learn more about the shops. It can also develop a bit of nostalgia for consumers. However, this piece of technology will be in high demand in the future and the research and development cost for this project will be very high.

Most shop owners are also afraid that the technology will be expensive and they may not have the monetary capabilities to afford this piece of technology, which is where the government funding will come in and help these shop owners to get this technology and attract more customers. The Singaporean Government usually encourage entrepreneurship by giving grants to ideas so that companies have funds to work on projects.

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