

COVID-19 and Food Supply: Consumer Insights from the UK

01 May 2020



Dr Samantha Gallage
Staffordshire Business School
Staffordshire University, UK
[Profile](#)

Dr Uchitha Jayawickrama
School of Business and Economics
Loughborough University, UK
[Profile](#)

CONTENT



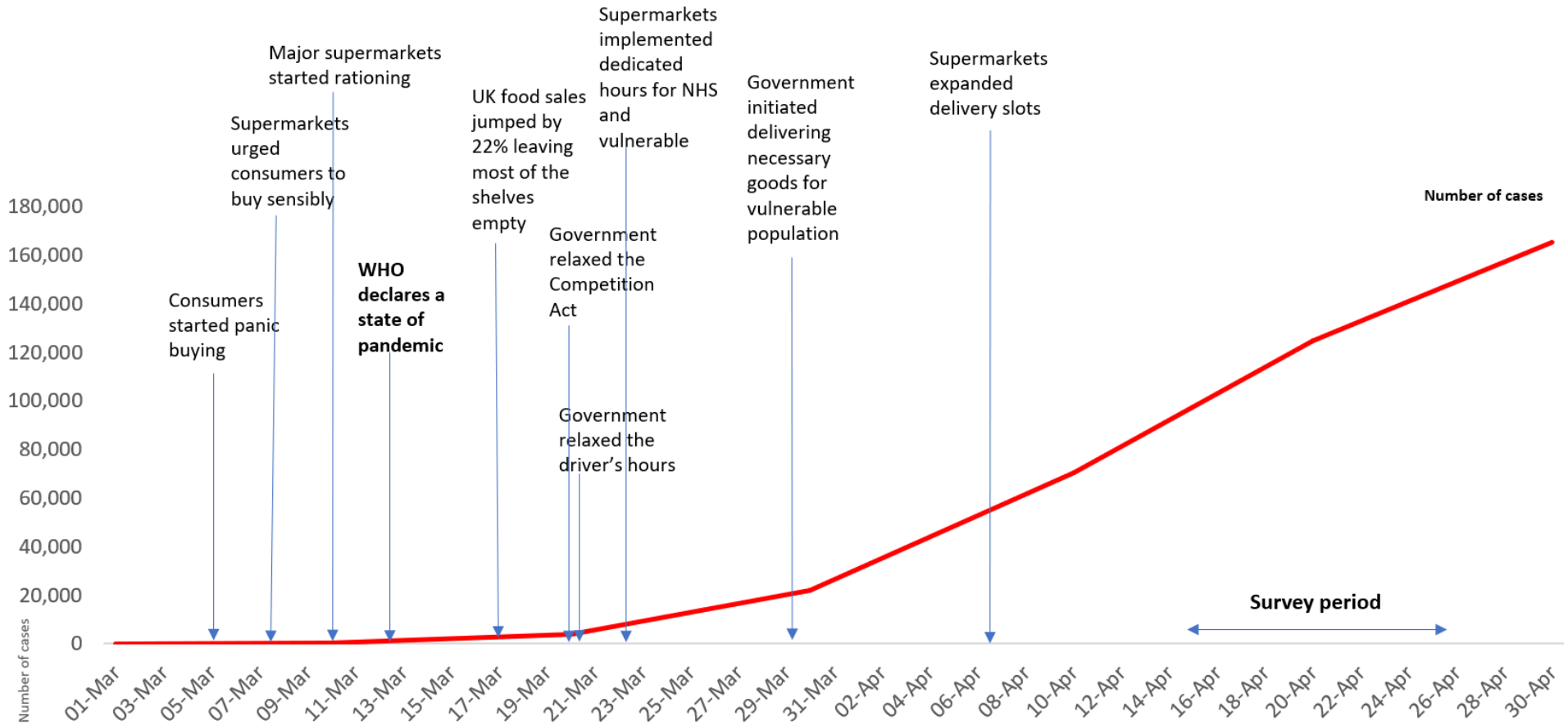
1. Research background and methodology
2. Key findings
3. Sample profile
4. Impact of the pandemic on food supply chain - consumer experience ¹
5. Do people have access to the necessities? ²
6. Impact of government and food industry initiatives on consumers ³
7. Effectiveness of communication ⁴
8. Final comments

EFRA select committee requirements:

- ¹ What further impacts could the current pandemic have on the food supply chain, or individual elements of it, in the short to medium-term and what steps do industry, consumers and the Government need to take to mitigate them?
- ² Are the Government and food industry doing enough to support people to access sufficient healthy food?
- ³ Have the measures announced by the Government to mitigate the disruptions to the food supply chain caused by the pandemic been proportionate, effective and timely?
- ⁴ How effectively has the Government worked with businesses and NGOs to share information on disruptions to the supply chain and other problems, and to develop and implement solutions?

1. RESEARCH BACKGROUND: TIMELINE – COVID-19 AND FOOD SUPPLY CHAIN

This survey was conducted soon after the government and the food industry had taken many initiatives to ensure the smooth functioning of food supply chains. Thus, the study findings will provide an indication of the success of these initiatives. The timeline of key events was as follows:



Source: Gov.uk (2020); BBC News (2020)

1. RESEARCH METHODOLOGY – ONLINE QUANTITATIVE SURVEY

The aim of this study was to understand consumer experience regarding the supply of food and other necessities during the ongoing COVID-19 crisis. It also focused on understanding the effectiveness of government and industry interventions on food supply chain. The study was conducted in compliance with the relevant ethical guidelines.

DATA COLLECTION



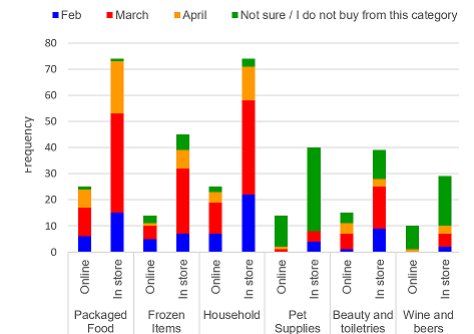
An 8 minutes online survey was used for data collection. The survey was promoted via digital channels such as Twitter, LinkedIn, Facebook and emails.
(Click on the image above for the online survey)

FIELDWORK



The fieldwork was carried out between 14th to the 26th April. In total **282 respondents** submitted their responses from a wide range of across the UK.

DATA ANALYSIS



Data analysis was done using descriptive statistics.

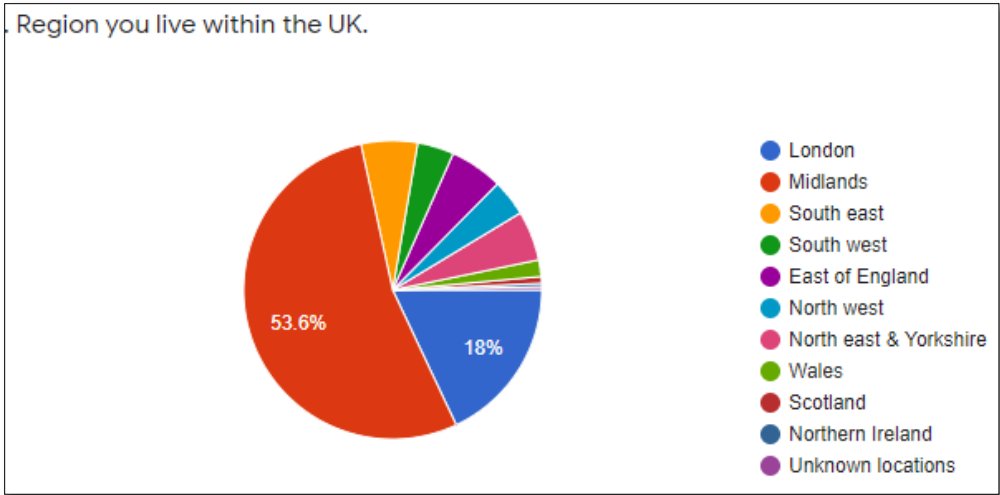
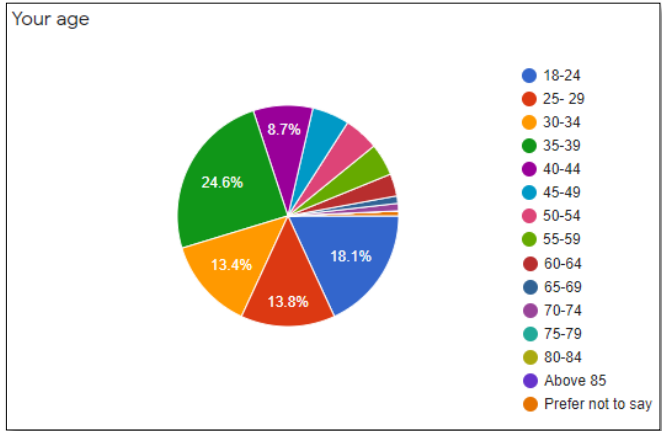
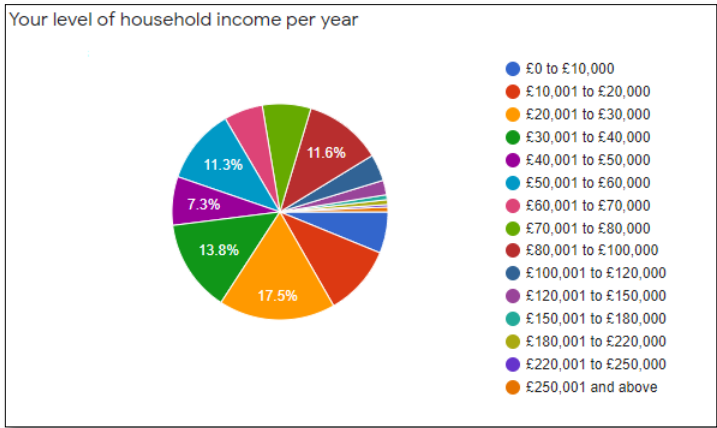
2. KEY FINDINGS

- During the crisis, 1 out of 2 respondents bought essentials solely in-store. This was largely due to the lack of delivery slots as well as click and collect slots among the supermarkets.
- Important product categories for the respondents were fresh food, packaged food (e.g. flour, pasta, etc.), household items and frozen items.
- However, majority of the respondents had experienced these categories being out of stock over both February and March **in store** as well as **online**. March is highlighted as the worst month in terms of the out of stock situation.
- The situation had improved over April. Yet, respondents still experienced the important categories being out of stock.
- Approximately 9 out of 10 respondents said fresh food was out of stock **in store** and approximately 8 in 10 respondents said packaged food was out of stock **online almost every time or frequently**.
- Approximately, 1 out of 2 respondents found it difficult to fulfill necessities during the COVID-19 crisis. Approximately 2 out of 3 key workers and 2 out of 3 vulnerable category individuals suggested that it was difficult for them to fulfill their necessities during this time period. 6 out of 10 low income earning respondents also suggested that it is difficult to fulfill their necessities.

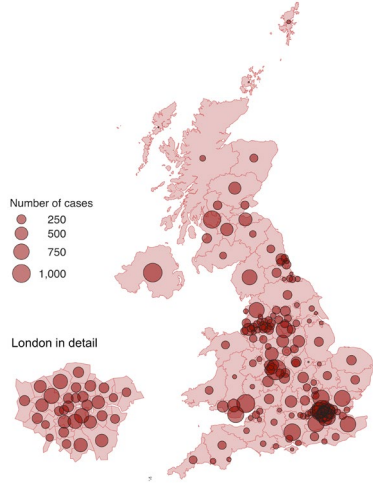
- 8 out of 10 respondents were satisfied with the rationing decisions made by supermarkets. 96% of them thought it was necessary. However, 6 out of 10 people thought the measures were not taken on time.
- Only 3 out of 10 respondents have heard about government actions on ensuring a smooth functioning of food supply chains. 4 out of 10 respondents in the vulnerable category and 3 out of 10 key workers had heard about government interventions.
- Only 4 out of 10 from the Midlands region and 2 out of 10 from London were aware of government interventions and actions regarding food supply chains.

3. SAMPLE PROFILE

- The sample represented different income categories and age ranges.
- The majority of the sample were from the Midlands region (53.6 %) followed by London (18%) and the remainder 28.4% were from other regions in the UK.



Confirmed coronavirus (Covid-19) cases

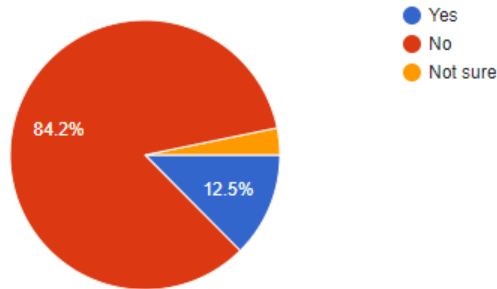


Note: City of London cases combined with Hackney
Source: UK's national public health agencies, Updated: 5 Apr 1430 BST

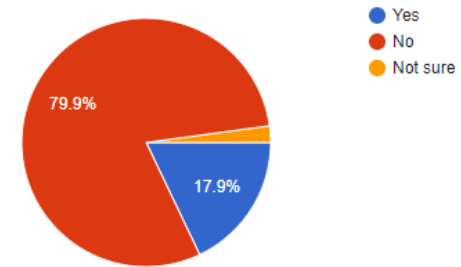
3. SAMPLE PROFILE CONTD – Key workers, vulnerable people and self-isolated respondents

- 12.5 % of the sample surveyed were from the vulnerable category and 17.9% were key workers.
- Nearly a half of the total sample (45.8%) had self-isolated during COVID 19 crisis. This could be due to them showing mild symptoms, family members showing symptoms, encountering someone who has been affected and being in the vulnerable category.

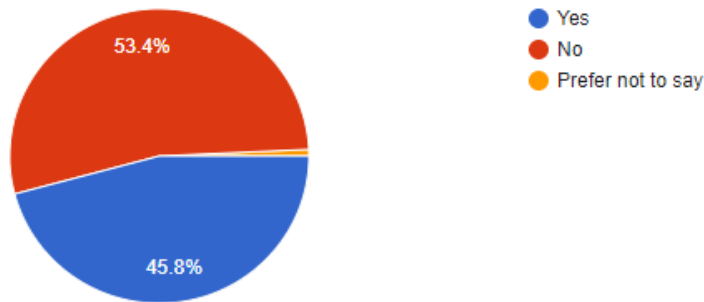
Do you consider yourself as part of the vulnerable category during COVID-19? (e.g. a patient with underlying health conditions, pregnant, above 70 years old)



Are you a key worker during COVID-19? (e.g. NHS staff, health and social care worker, education and childcare, key public service, national and local government, food and necessary goods, public safety and national security, transport, and utilities, communication and essential financial services)



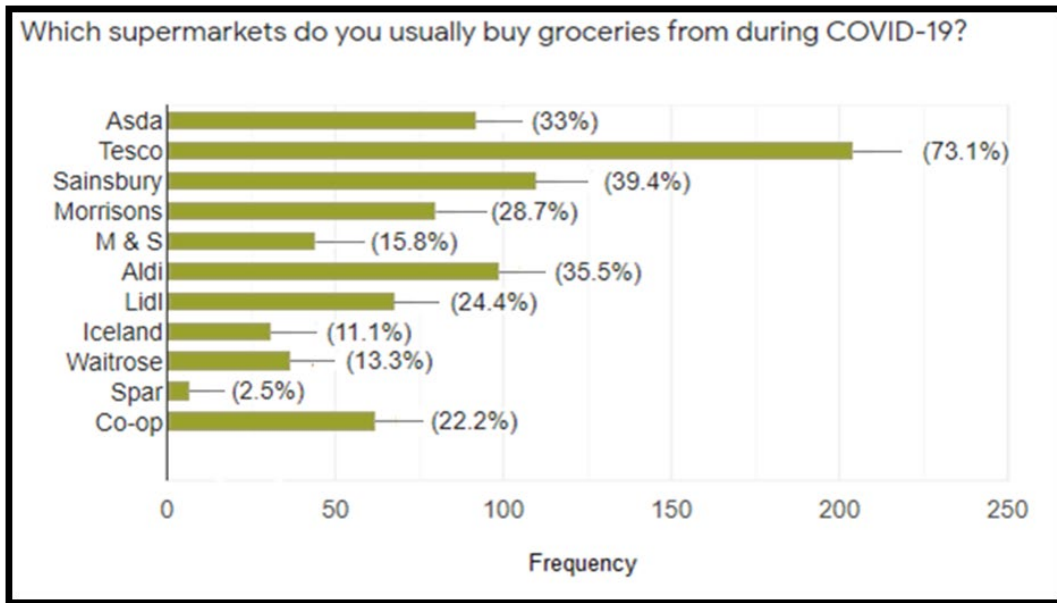
Did you self-isolate during COVID-19?



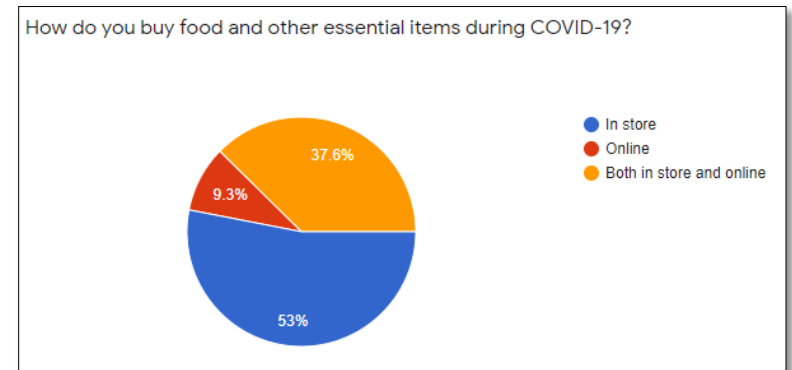
- Showing COVID-19 symptoms or
- Family members showing COVID-19 symptoms or
- Having contact with someone who has been affected from COVID-19
- Vulnerable category

4. Impact of the pandemic on food supply chain - consumer purchasing behaviour

- Nearly 2 out of 3 respondents bought necessary items from Tesco during the COVID-19 crisis. This was followed by Sainsbury (39.4%), ALDI (35.5%), ASDA (33%) and LIDL (24.4%). Thus, any collaborative actions with supermarkets should take into account the most popular supermarkets in the UK to create a maximum impact during COVID-19 crisis.
- 1 in 2 respondents bought essentials solely in store during the crisis whereas the rest bought products both online and in store. Thus, it is important to ensure an uninterrupted food supply in both in store and online platforms. The food industry and the government need to pay attention to creating a safe in store environment and making more delivery and click and collect slots available for consumers.



Some of the popular supermarkets do not offer the online grocery purchasing option to consumers. Thus, it is important that the government encourage and provide necessary support to these supermarkets to introduce and strengthen online grocery purchasing.



Qualitative data - worst experience of consumers

Online experience:

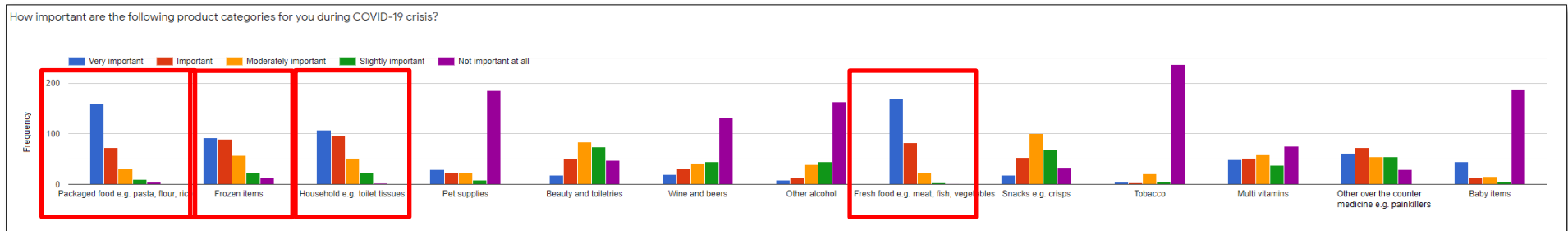
“Hard to get an online delivery slot and/or click and collect slot”

In store experience:

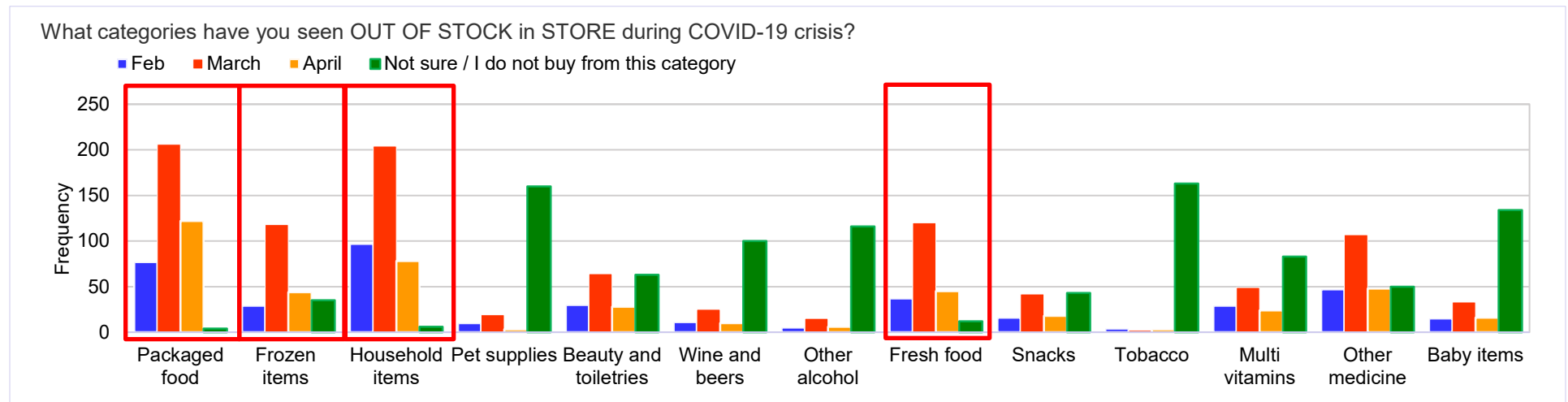
“People are not keeping social distance”

4. Impact of the pandemic on food supply chain CONTD - Out of stock situation (In store)

- The findings suggested that the most important product categories for respondents were fresh food, packaged food (e.g. flour, pasta, rice, etc.) and household items and frozen items.
- Least important categories were tobacco, pet supplies, alcohol and baby items.

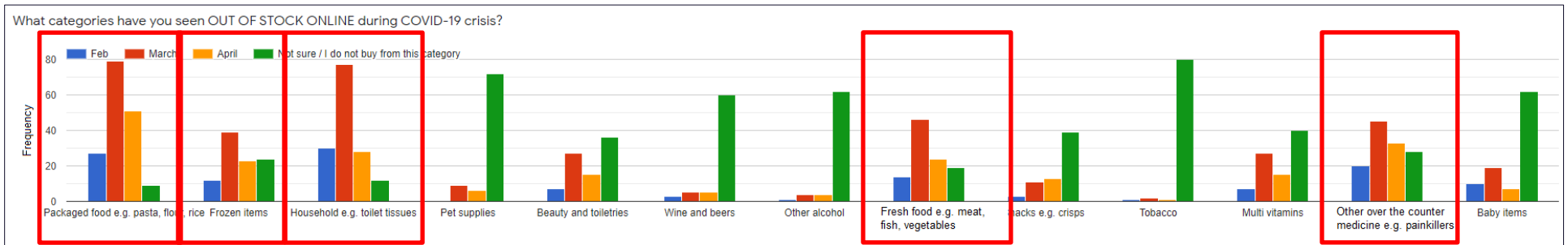


However, majority of respondents experienced the most important categories being out of stock both in February and March *in store*. March is highlighted as the worst month in terms of out of stock situation. This improved slightly over April. Yet, vast majority of respondents still experienced the important categories being out of stock.

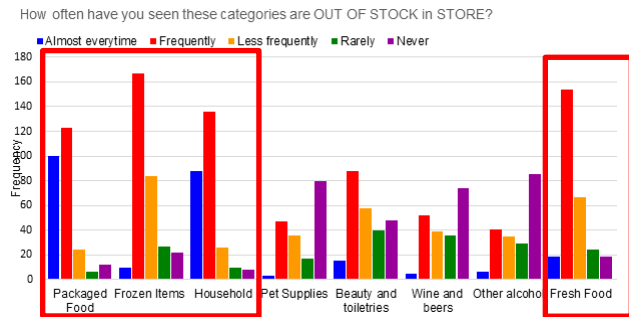


4. Impact of the pandemic on food supply chain CONTD - Out of stock situation (Online)

- A similar pattern is suggested in online shopping. March is highlighted as the worst month in terms of the out of stock situation.
- Out of stock situation improved slightly over April. Yet, it was still prevalent in the most important categories.
- Additionally, respondents also experienced over the counter medicine such as painkillers being consistently out of stock online.



These respondents also suggested that these important categories were out of stock **more frequently**.



4. Impact of the pandemic on food supply chain CONTD - Out of stock situation

	% respondents who suggested the categories were out of stock almost every time and frequently – In store		% respondents who suggested the categories were out of stock almost every time and frequently - Online	
	Almost every time	Frequently	Almost every time	Frequently
Fresh food	46.30%	45.83%	10.71%	36.90%
Packaged food	25.73%	21.16%	32.08%	53.77%
Household items	36.36%	45.45%	31.07%	46.60%
Frozen items	4.42%	36.73%	6.25%	32.29%



Qualitative data –
Consumer experience

“Having an online order accepted but then cancelled a day later due to running out of stock”.
“I could not get minced meat or chicken, paracetamol, toilet roll, eggs, flour or long life milk during my weekly shop”.

Among the most important out of stock categories, approximately 9 out of 10 respondents suggested fresh food was out of stock **in store** and approximately 8 out of 10 respondents suggested that packaged food was out of stock **online almost every time or frequently**. This might have made it extremely difficult for consumers to fulfill their basic needs during COVID-19 crisis.

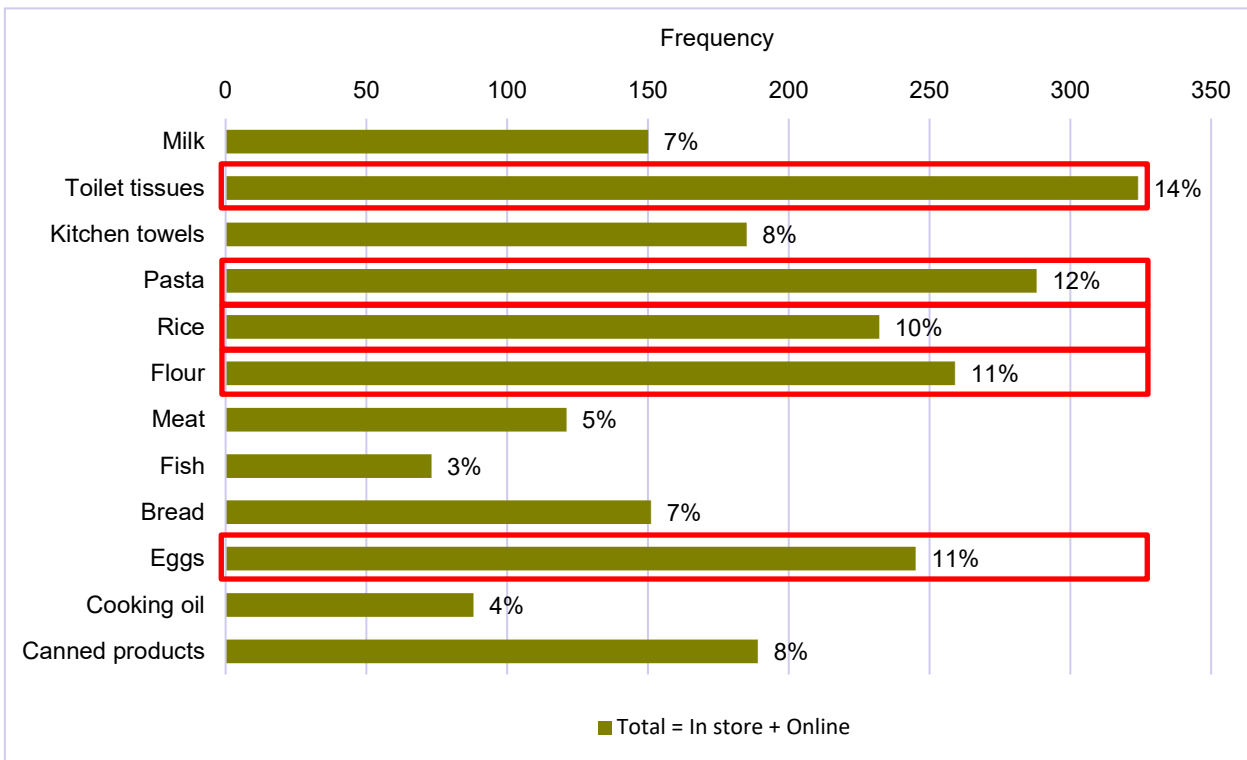
Government and the food industry need to pay special attention to these important categories to ensure that consumers fulfill their necessities during COVID-19.

4. Impact of the pandemic on food supply chain CONTD - Out of stock situation by items

Among these categories, items such as toilet tissues, pasta, flour, eggs, rice, canned products, kitchen towels and bread were the most difficult items for respondents to purchase both online and in store.

Food industry and the government should pay special attention to these items as they are considered essential necessities by the respondents surveyed.

Which specific items have been out of stock mostly?

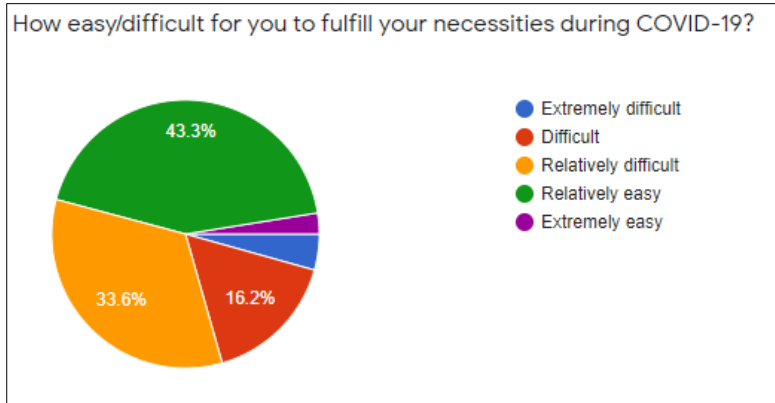


Qualitative data –
Consumer experience

- “Pasta, flour, rice, & eggs all out of stock”
- “Had to go to 4 shops to get paracetamol”
- “I couldn't buy rice for over three weeks”

5. Do people have access to necessities?

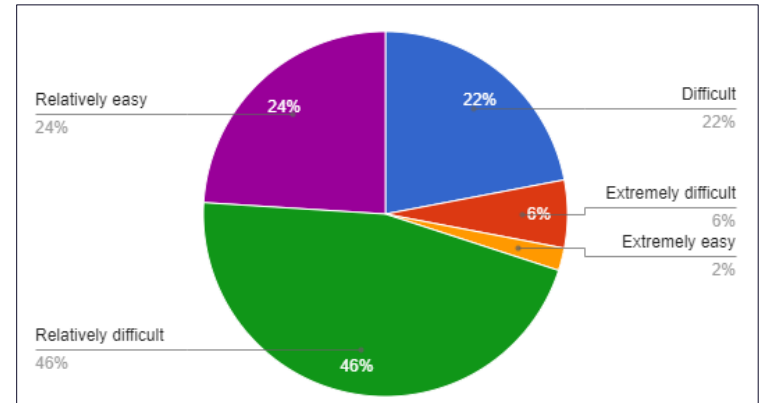
Approximately, 1 in every 2 respondents found it difficult to fulfill necessities during the COVID-19 crisis.



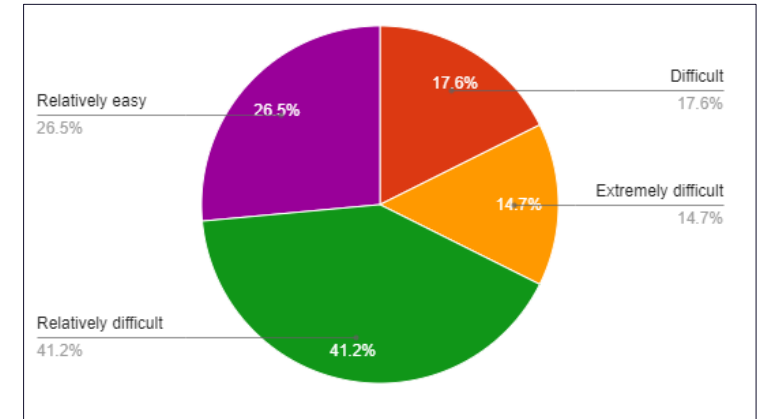
Breaking it down into different groups

- Approximately 2 out of 3 key workers and vulnerable category individuals suggested that it was difficult for them to fulfill their necessities during the COVID-19 crisis.
- 6 out of 10 low income earning respondents also suggested that it was difficult to fulfill their necessities.
- Thus, it is important that the government pay a special attention to vulnerable category and key workers in particular and ensure their needs are being met during COVID-19 crisis. It is also important to pay a special attention to low income earning groups during this crisis.

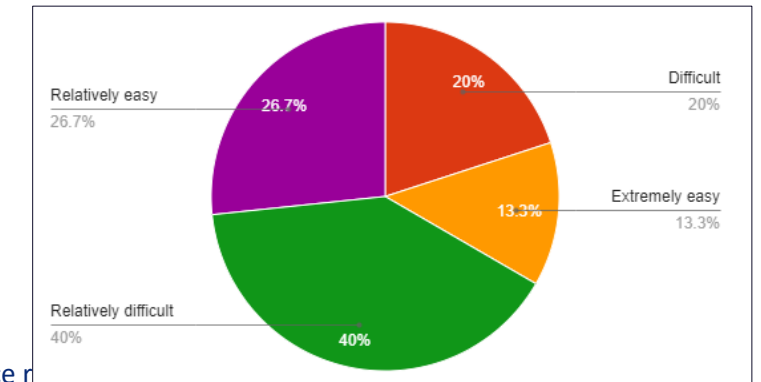
How easy or difficult it is for key workers to fulfil their necessities?



How easy or difficult it is for vulnerable population to fulfil their necessities?



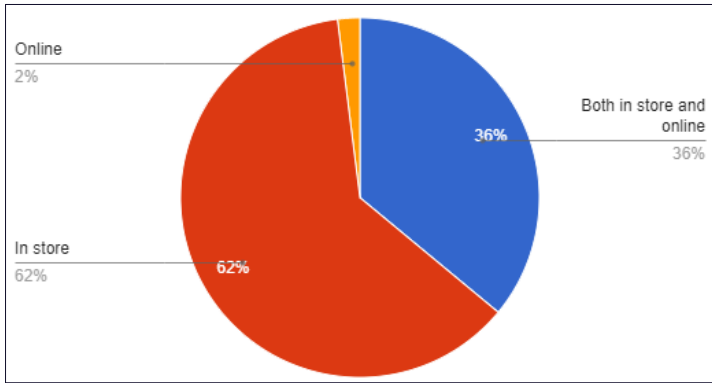
How easy or difficult it is for low income earning population to fulfil their necessities?



(Low level of income considered = £0 to £10,000)

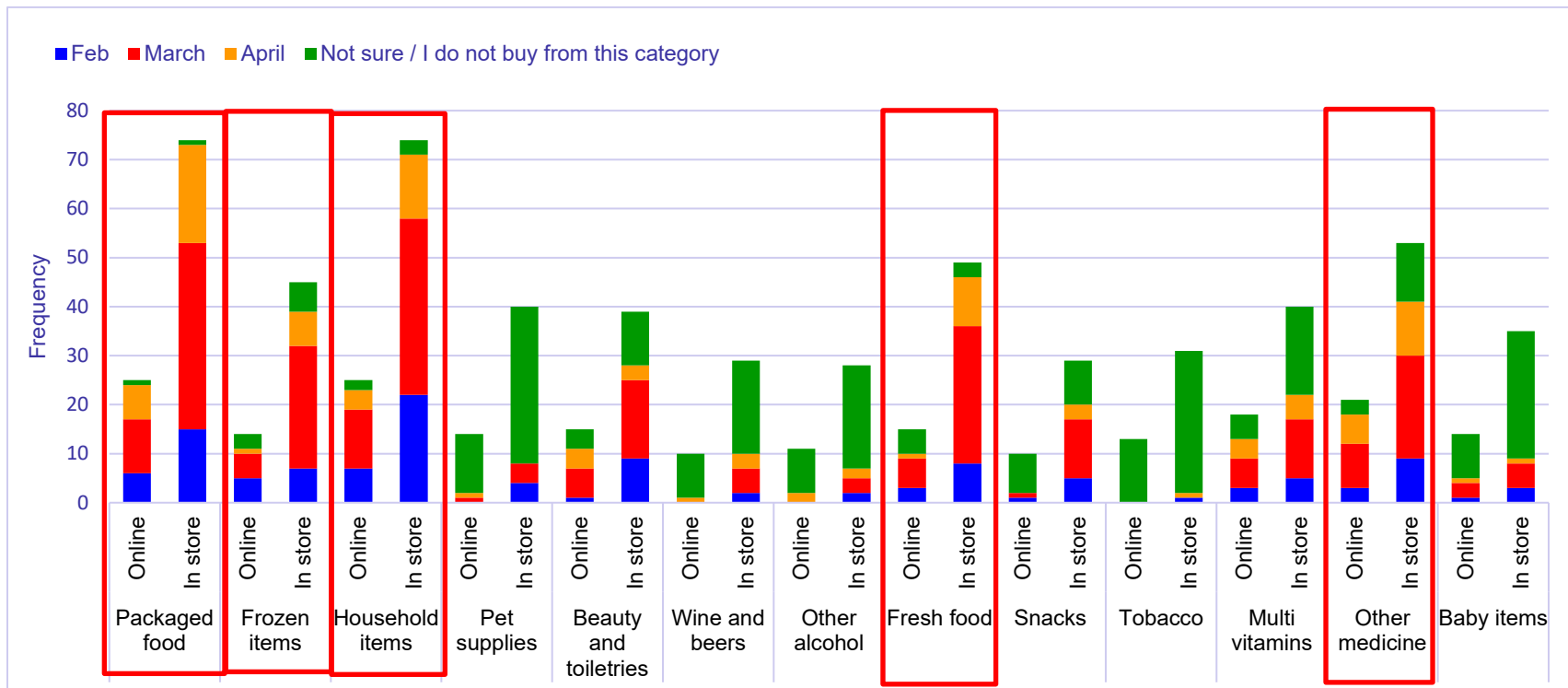
5. Do people have access to necessities? CONDT – Key workers

Key workers purchasing channels during COVID-19 crisis



- 62% key workers purchased items solely in store.
- These key workers have experienced packaged food, household items, fresh food, frozen items and medicine (over the counter) being out of stock.

Product categories key workers have seen out of stock both in store and online



5. Do people have access to necessities? CONDT – Key workers

Product items key workers have seen out of stock both in store and online

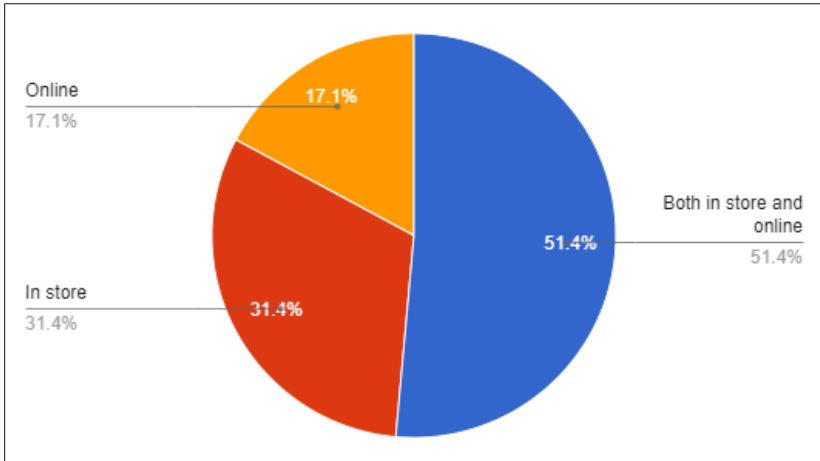


Taking a closer look at the out of stock items, key workers suggested toilet tissues, pasta, flour and eggs were out of stock more often followed by canned products, kitchen towels, milk, bread, meat, fish and cooking oil.

Government and the food industry should strengthen the efforts that have taken to fulfill the necessities of key workers. This is important given that key workers play a pivotal role in overcoming this crisis.

5. Do people have access to necessities? CONDT – Vulnerable category

Vulnerable category purchasing channels during COVID-19 crisis



- Largely vulnerable respondents buy things online and in store during the COVID-19. However, given the limited delivery slots some of them were forced to buy in store.

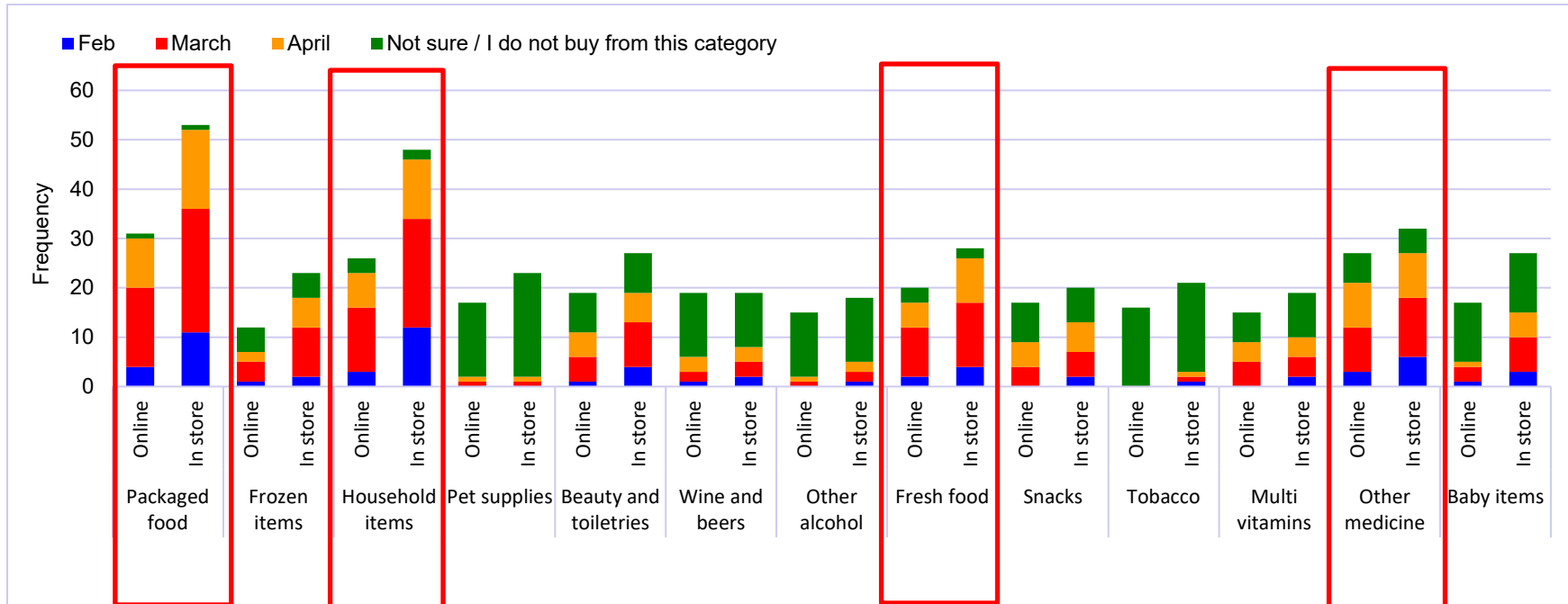


Qualitative data – Consumer experience

“Extremely difficult to get delivery slots though I am vulnerable. Had to go to a shop”.

- The vulnerable group have experienced packaged food, household items, fresh food and medicine (over the counter) being out of stock largely in store but also online.

Product categories vulnerable category have seen out of stock both in store and online



5. Do people have access to necessities? CONDT – Vulnerable category

Product items vulnerable category have seen out of stock both in store and online

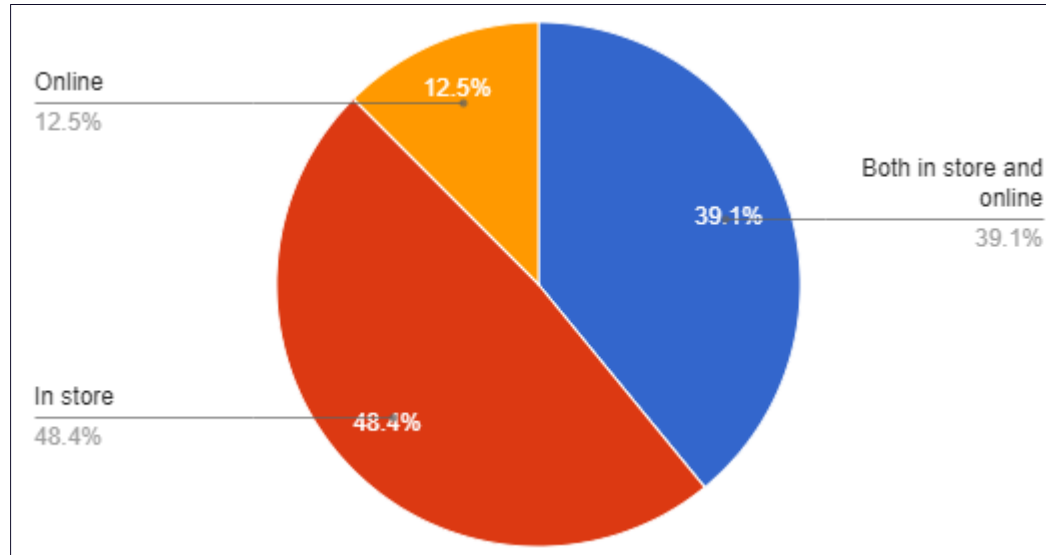


Taking a closer look at the out of stock items vulnerable category individuals surveyed suggested toilet tissues, pasta, flour and eggs were out of stock more often followed by kitchen towels, milk, canned products, meat, bread, fish and cooking oil.

Government and the food industry should give a special attention to expanding online delivery services to ensure the necessities of the vulnerable category.

5. Do people have access to necessities? CONDT – Self-isolated category

Self-isolated category purchasing channels during COVID-19 crisis



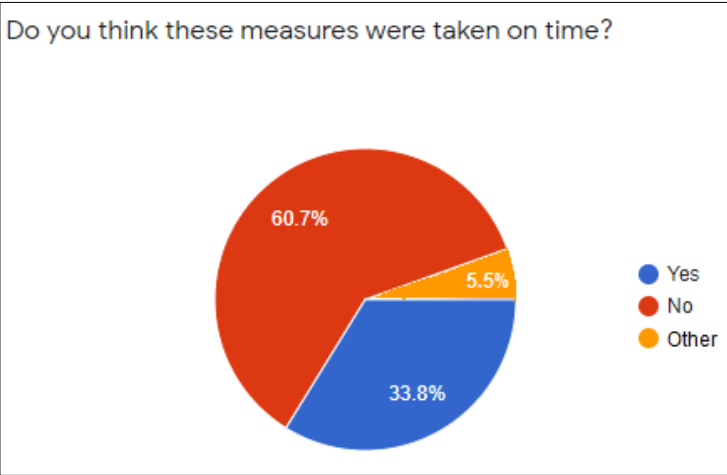
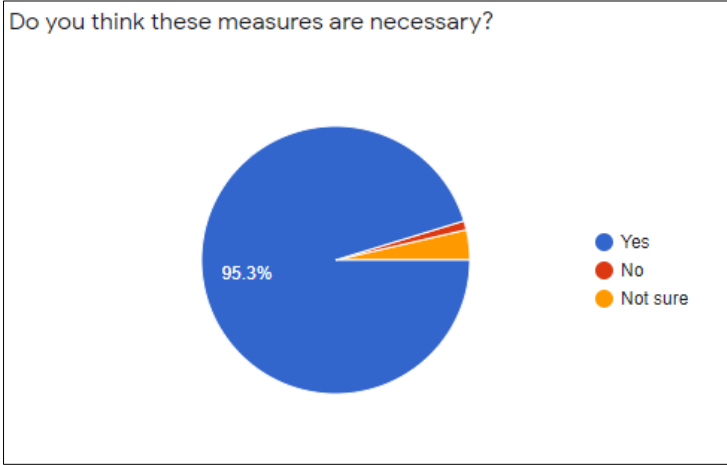
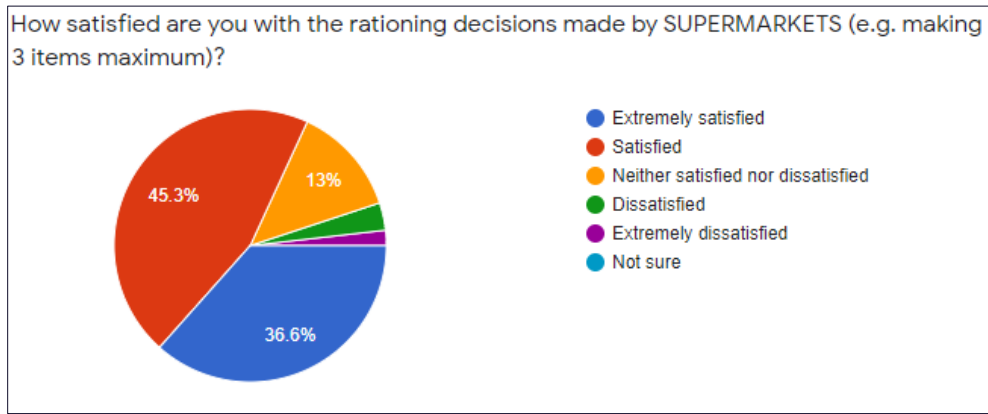
Among the self-isolated category 1 in 2 purchased products in store. (This might be during the non self-isolating time. The data was insufficient to derive the time period these consumers were buying groceries in store).

Government and the food industry should work closely together to strengthen the online delivery mode and click and collect mode.

It is also important to reinforce the importance of using online delivery methods during self-isolation to minimise the risk of spread.

6. Impact of government and food industry initiatives - rationing decisions

- 8 out of 10 respondents were satisfied with the rationing decisions made by supermarkets.
- 95.3% of them thought it is necessary.
- However, 6 out of 10 people thought the measures were not taken on time.



Qualitative data - worst experience of consumers

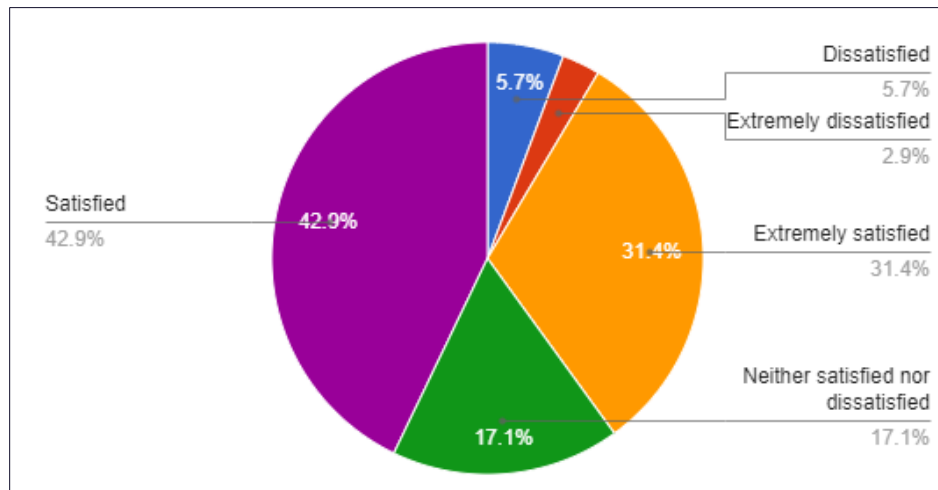


“Panic buying in February and March left empty shelves”.

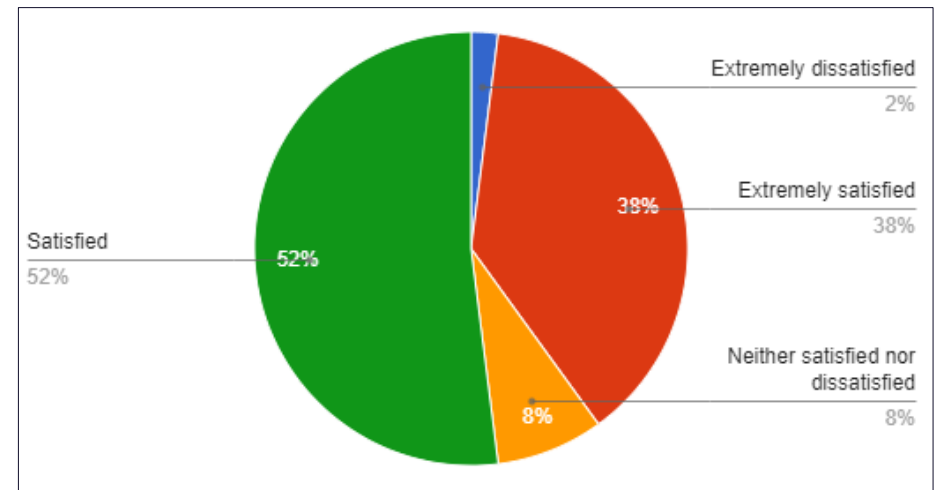
6. Impact of government and food industry initiatives CONTD - rationing decisions: **vulnerable category and key workers**

- The majority of the vulnerable category (7 in 10) and the key workers (8 in 10) were satisfied with the rationing decisions made by supermarkets.
- **Therefore, the government and the food industry should further strengthen these rationing decisions.**

How satisfied the vulnerable category about rationing decisions?

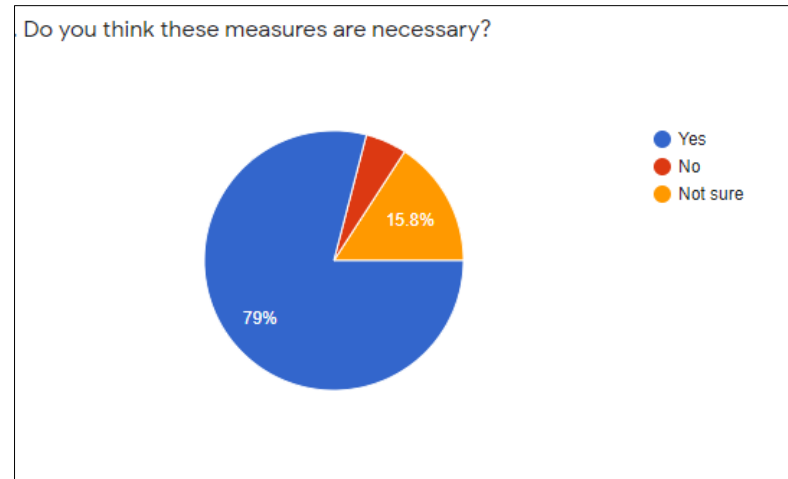
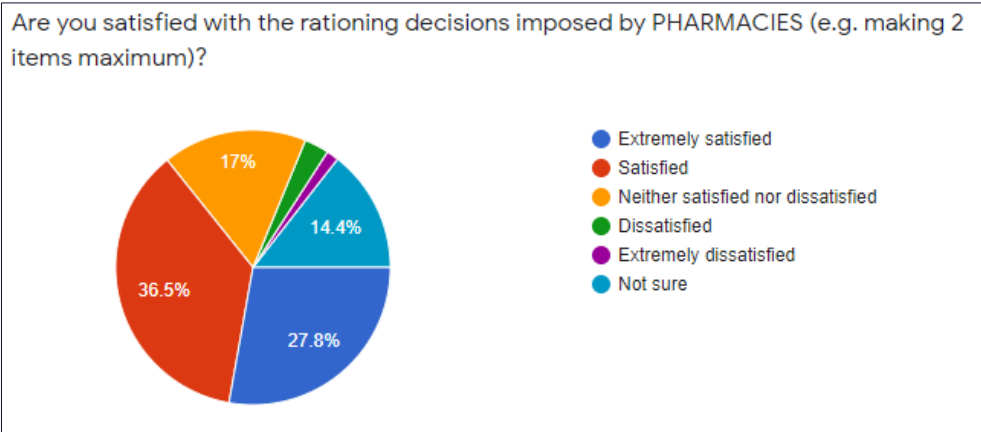


How satisfied the key workers about rationing decisions?



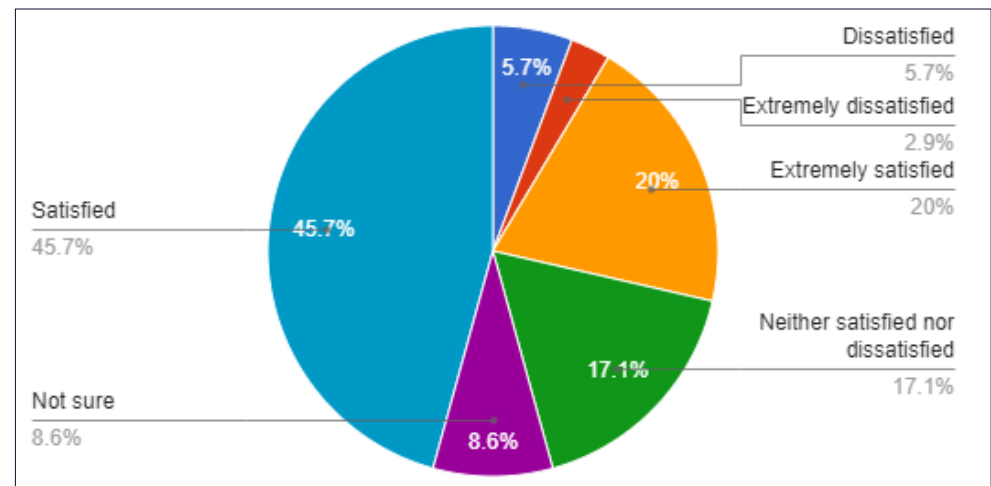
6. Impact of government and food industry initiatives CONTD - rationing decision of pharmacies

- 6 out of 10 respondents were satisfied with the rationing decisions made by pharmacies on certain products such as hand sanitisers and painkillers.
- 79% of them thought it is necessary to ration.



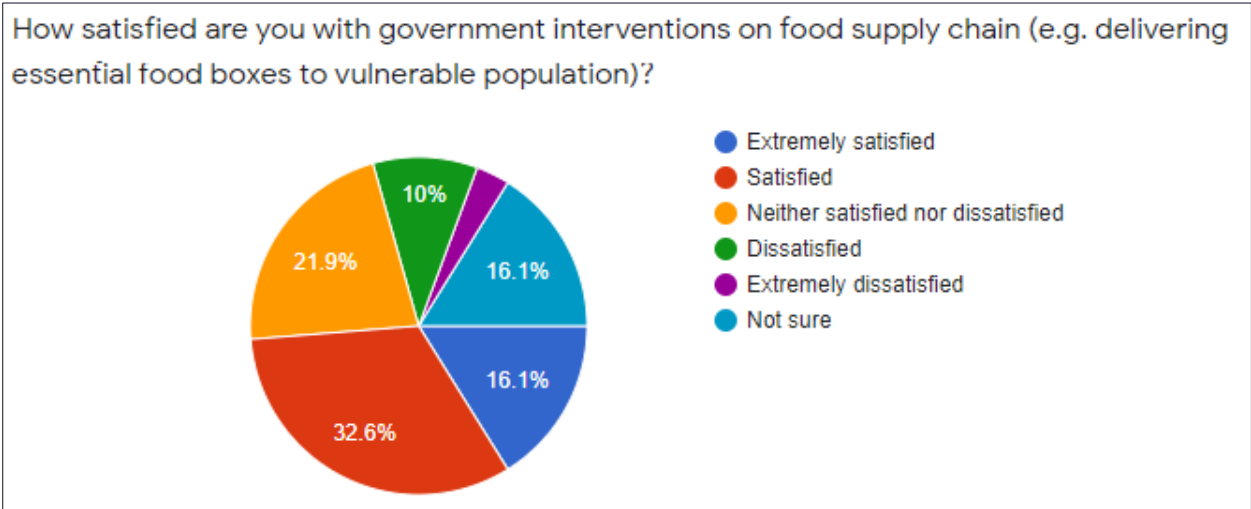
- Among the vulnerable category 6 out of 10 were satisfied with the rationing decisions.
- **Given that the vulnerable category need painkillers and other necessities from pharmacies, authorities should ensure the availability of these items.**

How satisfied the vulnerable category about rationing decisions: pharmacies?



6. Impact of government and food industry initiatives CONTD: Government interventions

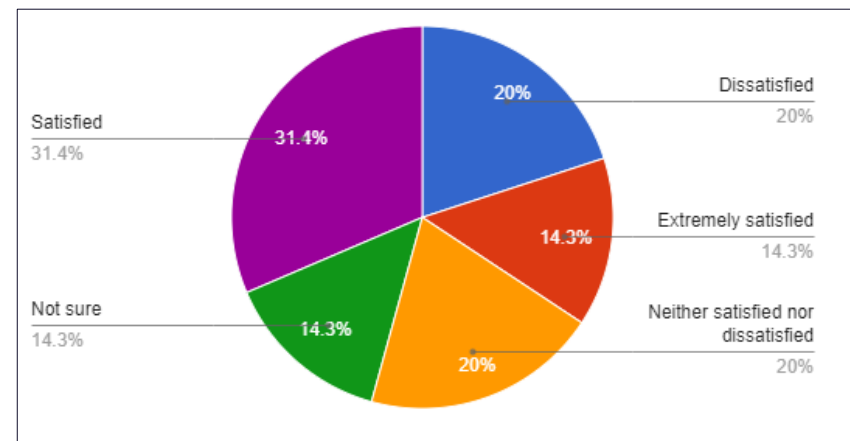
1 in 2 respondents were satisfied with government interventions on ensuring smooth food supply chains.



- Nearly 20% from the vulnerable category were dissatisfied of government interventions and a larger proportion had a very little idea about it.
- This could be largely due to the lack of awareness of government interventions.

Government should collect insights from vulnerable population of their necessities and communicate the delivery method and other intervention details effectively to them.

How satisfied the vulnerable category regarding government interventions?



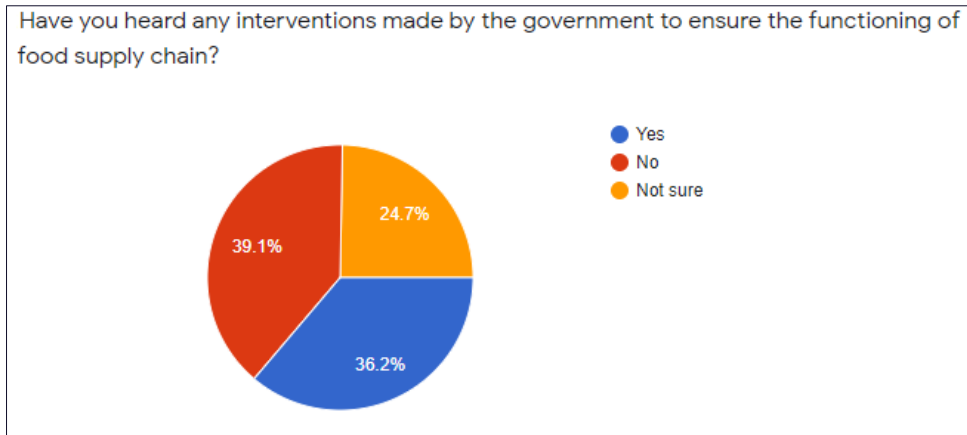
“I did not know government has made arrangements to give a box”



Qualitative data - consumer experience

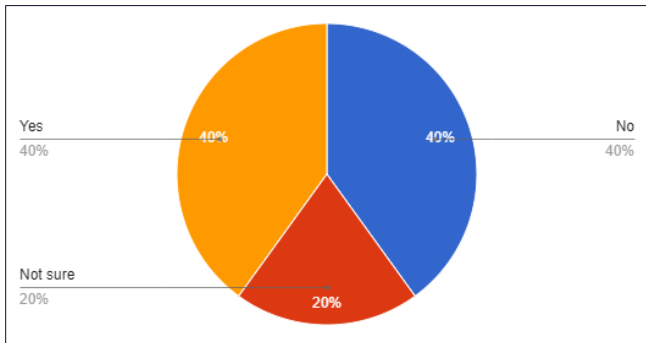
7. Effectiveness of communications

- Only 3 out of 10 respondents had heard about government actions on ensuring the smooth functioning of food supply chains.
- 4 out of 10 respondents in the vulnerable category and 3 out of 10 key workers had heard about government interventions.

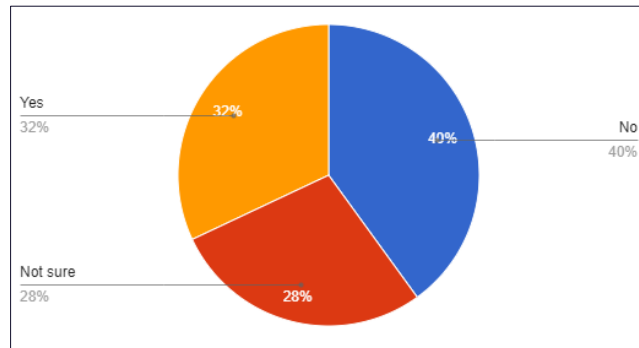


Government should collaborate with the food industry and communicate their actions effectively to the consumers. It is also important to see most effective communication methods for different groups and regions.

Has the vulnerable category heard about government interventions?

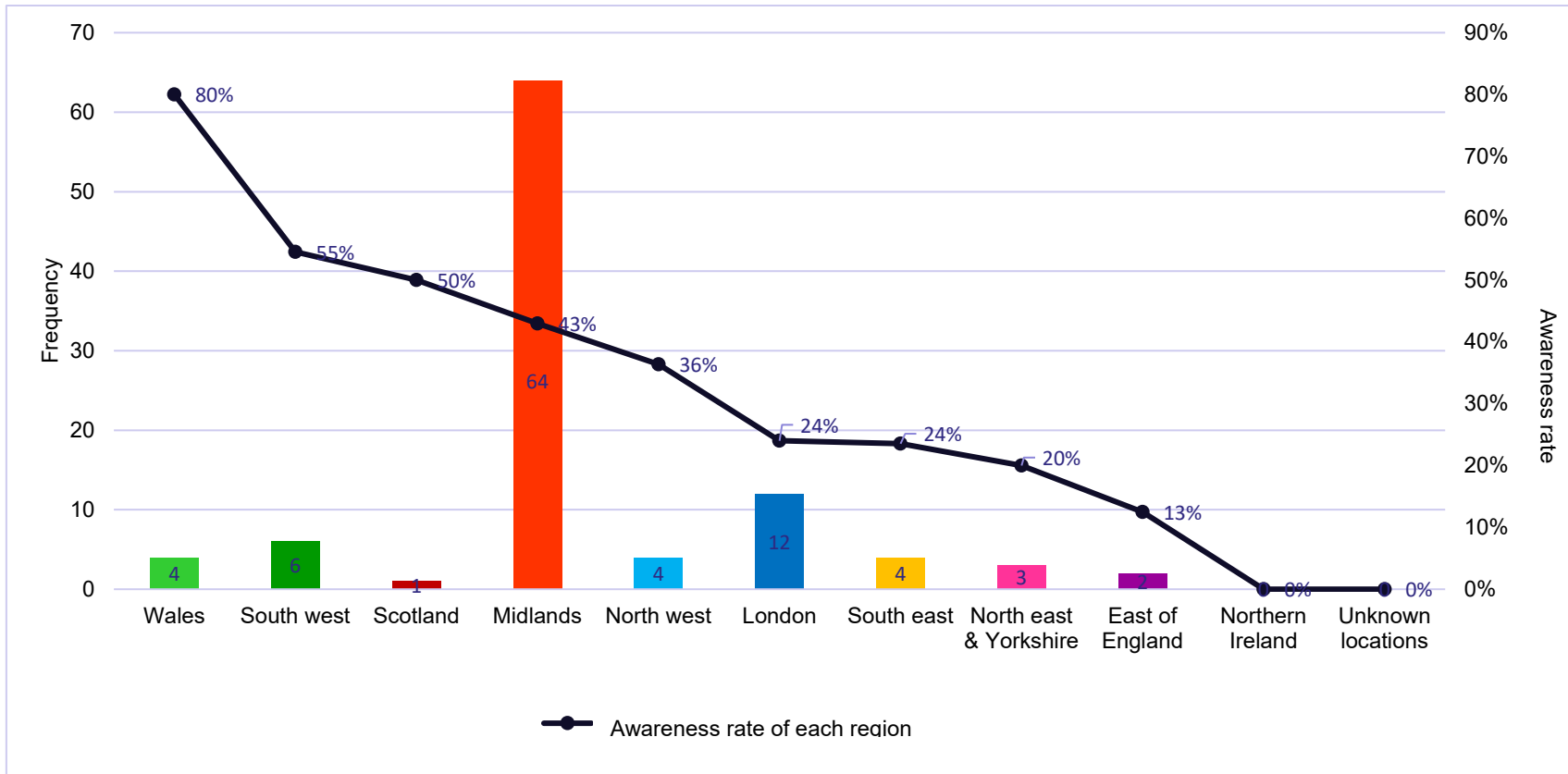


Have the key workers heard about government interventions?



7. Effectiveness of communications CONTD – By region

What is the level of awareness of government interventions in different regions?



Among the respondents only 4 out of 10 from the Midlands region and 2 out of 10 from London were aware of government interventions and actions regarding food supply chains. The level of awareness was considerably low in other regions as well. The higher awareness in some regions might be attributed to the low number of respondents from those regions.

This suggests that the government and the food industry need to take steps to clearly communicate their efforts to consumers. In particular, the most affected regions such as London and the Midlands should have a clear communication plan.

7. Effectiveness of communications CONTD – Consumer qualitative data

Respondents also had doubts on prices of items, measures taken to protect vulnerable consumers and social distancing measures inside stores.

Examples:

- “Items are short, prices increased of some items. Do not know what is happening”.
- “Initially people standing too close in queue and reaching over me at the veg counter. Large price hikes used to ration certain items instead of quantity per basket limitation. Customers returning to the store for a 2nd and 3rd shop when quantity limits were imposed”.
- “Very stressful social distancing in a supermarket where people have called in for a few items”.
- “I have asthma, so I am in a risk category. But online shopping slots not available so I've had to physically go to store. Not ideal, but can't be helped! Sometimes I cannot find the meat and fresh vegetables I need. E.g. Beef and Broccoli (Not luxury items, but basics). And some people in store do not maintain 2m distance at all”.

8. FINAL COMMENTS: WHAT DO CONSUMERS TELL US?

Creating a safe in store environment is required - Consumers praised the commitment of the supermarket staff. However, consumers were concerned about the social distancing measure in supermarkets. **Therefore, supermarkets and grocery stores should make sure consumers adhere to social distancing measures. It is also important that the government communicate these measures effectively.**

Difficulty in accessing necessities - Many consumers had not been able to access necessities due to empty shelves (out of stock), long ques, not being able to book delivery or click and collect slots. Certain necessary items were out of stock for long periods of time. This was a severe issue among vulnerable consumers as they were not been able to book delivery slots.

Government measures - **Government should collaboratively work with supermarkets to ensure delivery slots for vulnerable population, self-isolated consumers and key workers. Further, the government should encourage local food suppliers and delivery services to deliver products during the crisis. Incentivising these small businesses will be helpful to manage the situation.**

Government should have a clear communication link with consumers regarding interventions they take. Some consumers were concerned about sudden price hikes in grocery stores during the crisis. **Therefore, it is important to pay attention to these aspects and clearly communicate any measures the government have taken.**

Some example quotes from consumer qualitative data

“Stores are having supplies for expensive items but not bothering about the everyday priced items. They do have items with expensive brands or small expensive packs of the things where as there must not be the shortage of many of these products. E.g. ***Tesco is selling milk 2pt 80P and the 3.3 is milk bottles are always out of stock*** whereas it could not possible at all that cows are giving less milk because of Covid 19. That's how they are earning surplus. ***Similarly, they are managing the products with higher prices but the same with everyday value are out of stock.*** E.g. white flour eggs sugar etc”

“The number of ***local businesses in the community who began delivery services / helped the community with sourcing food.*** Much better than the supermarkets in terms of reliability”.

“The ***difficulty with securing a delivery slot from the supermarkets online services as we did not want to risk going to the supermarkets.*** Tried numerous times to no avail. When the deliveries did eventually come, ***most products did not arrive or were substituted for items that were completely different / no use to my household***”.

“I was able to purchase almost all essentials most of the times, ***Tesco staff managed the number of people entering into the store very effectively.*** People were more careful and considerate to maintain a meter gap within the store. The trolleys were disinfected, customers were provided with gloves. This is mostly Tesco”.

“Baby formula been out of stock for few months especially when we have a newborn baby who does not drink breast milk”.

Some example quotes CONTD

“Going shopping and *see empty shelves for essential products mentioned in this survey*. Going to different store and see the same thing. Not being able to cover what I need. *The trip to the shop itself is not safe. The long ques and people do not wear masks. The lack of PPE in stores is very concerning*, at least staff must wear them. Also, the lack of online slots and the inability to register in other stores was very problematic”.

“Trying to *obtain delivery slots which I needed in order to shield my extremely vulnerable spouse*”

“We have been able to *order from local farms and retailers to get food boxes of fruit and veg and meat and fish*. We have been able to work with other family members to share when someone is able to get a delivery slot to add items we need to their order and collect them from them. At a safe distance of course!”

“Maybe the long queues but its essential during this pandemic. *However, the stores running out of flour and baking powder was a huge inconvenience* which meant I had to purchase them online for a much larger price than I would purchase in store”.

FURTHER EXPANSION OF THE STUDY

- Given the time and resource limitations, the study sample does not represent the population spread across the UK. A further data collection with a large, representative stratified sample would provide a more comprehensive picture of the issue. This would require more resources (e.g. funding) and time.
- A further study is needed to understand best communication methods for different groups and regions.
- The study can be extended into supermarkets and grocery stores to get information from suppliers' side.
- A qualitative in-depth study would be a good addition to further understand the problem and devise a comprehensive solution.

Special thanks to Ms Florie Bandara for her support.

Contact us:

Dr Samantha Gallage

Staffordshire Business School

Staffordshire University, UK

Samanthika.gallage@staffs.ac.uk

[LinkedIn](#)

Twitter: [@Samanthi556](#)

Dr Uchitha Jayawickrama

School of Business and Economics

Loughborough University, UK

U.Jayawickrama@lboro.ac.uk

[LinkedIn](#)

Twitter: [uchitha49](#)