

Survey instrument

List of survey questions in online survey completed by participants using Qualtrics

1. Introduction

Q.1. Please select one or two words from the list below to create your organisation's tag for this research reflecting as far as possible the role(s) your organisation has in the supply chain, e.g. "manufacturer", "wholesaler/retailer", "producer" or "importer/wholesaler". (If you have previously selected this 'tag' please use the same one as elsewhere in the research.)

- | | |
|--------------------------------------|---------------------------------------|
| ☐ Distributor | ☐ Retailer |
| ☐ Supplier | ☐ Wholesaler |
| ☐ Transporter | ☐ Manufacturer |
| ☐ Exporter | ☐ Importer |
| ☐ Procurer | ☐ Processor |

2. Your organisation's role in the supply chain

Q.2. What does your organisation do? Tick all that apply.

- | | |
|---|---|
| ☐ Growing or producing food or food ingredients (e.g. farming) | ☐ Selling or providing food to consumers |
| ☐ Processing ingredients | ☐ Buying and selling food or food ingredients but not producing/manufacturing/selling to consumers |
| ☐ Manufacturing food | ☐ Other (please specify below) |
| ☐ Transporting food or food ingredients | |
| ☐ Storing or warehousing food or food ingredients | |

Q.3. What best describes the role of your organisation in Company A's chicken tikka masala supply chain?

- ☐ Producer (e.g. farmer)
- ☐ Customer (e.g. a business that sells or provides the finished product to consumers)
- ☐ Processor (e.g. poultry processor, dried ingredient processor)
- ☐ Manufacturer (e.g. combining ingredients for finished or near finished product, manufacturing packaging)

- ☐ Transport and logistics (e.g warehousing or road transport management)
- ☐ Wholesaler (e.g. distributor)
- ☐ Importer/exporter (e.g. sourcing ingredients for import into the UK)
- ☐ Other (please specify below)

Q.4. Which ingredients or components in Company A's chicken tikka masala does your organisation handle? Tick all that apply.

- ☐ Finished chicken tikka masala
- ☐ Chicken
- ☐ Fresh or frozen fruit / vegetables
- ☐ Dried or tinned vegetables / spices / condiments
- ☐ Fresh dairy ingredients
- ☐ Other dried or tinned ingredients
- ☐ Packaging, machinery or other non-food products

Q.5. How long has your organisation been involved in Company A's chicken tikka masala supply chain?

- ☐ Less than one year
- ☐ One-five years
- ☐ Six-10 years
- ☐ More than 10 years
- ☐ Not sure

Q.6. How would you describe the importance of Company A's chicken tikka masala supply chain, as part of your overall business activity?

- ☐ Major part of the overall business
- ☐ One of several important parts of the overall business
- ☐ A significant part of the overall business
- ☐ A small part of the overall business
- ☐ An insignificant part of the overall business
- ☐ Not sure about its importance

3. Supply chain management and logistics

Q.7. How often does your organisation receive supplies or deliveries (e.g. of ingredients, packaging etc) to carry out your core function in the chicken tikka supply chain?

- | | |
|---|---|
| ☐ More than once daily | ☐ A few times per month |
| ☐ Daily | ☐ Once per month |
| ☐ Several times a week | ☐ Less than once per month |
| ☐ Weekly | |

Q.8. Please comment - are some supplies arriving more often than others? Is there more storage for some ingredients than others? How much stock do you hold on inventory after it arrives, or before it leaves your organisation?

Q.9. To what extent do you agree with these statements about demand and supply patterns for products your organisation supplies for chicken tikka masala? (If your organisation supplies e.g. spices, and also supplies the same spices to other organisations, or into other supply chains, think about all those customers.)

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not applicable / not sure
Customer demand for the products my organisation supplies is stable					
We can predict when demand will be higher or lower					
It is hard to manage the unpredictability of demand					
Our suppliers are consistently able to provide what we need					
My organisation sometimes worries about the quality of supplies					
Sometimes my organisation struggles to keep up with orders					
I know where my suppliers get their supplies from					
I know who my customers sell their products to					

Q.10. Do you have any comments about your responses to these statements?

4. Supply chain disruptions

Supply chains disruptions by the natural environment could have a direct impact, such as

- changes to demand due to unexpected weather (e.g. a heatwave means increased demand for salads)
- lower production on a farm due to drought
- delays to deliveries due to a storm
- factory closure due to a flood

They can also have indirect impacts, such as

- reduced output because of lower staffing levels due to covid restrictions
- more expensive ingredients because a pest in crops led to supply shortages
- difficulties sourcing ingredients due to production of ingredients changing or stopping because of climate change

This section is all about disruptions to the natural environment that could impact supply chains.

Q.11. What sort of disruption to the natural environment do you think is most likely to affect your organisation's supply chain operations?

- | | |
|---|--|
| ☐ Disruptive weather event (e.g. flood, storm) | ☐ Contamination by harmful pollutant or toxin (e.g. pesticide, heavy metal) |
| ☐ Disruptive climate event (e.g. drought) | ☐ Disruptive disaster event (e.g. earthquake, electrical storm, dam breach) |
| ☐ Pest in plants (e.g. blight) | |
| ☐ Disease in animals (e.g. avian flu) | |
| ☐ Disease in humans (e.g. COVID, seasonal flu) | |

Q.12. What made you select this option?

Q.13. Where in your supply chain operations is disruption most likely to have an impact?

- | | |
|--|---|
| ☐ With suppliers not being able to fulfil an order | ☐ With customers, e.g. due to unexpected changes in demand |
| ☐ Inside my organisation, due to production stoppages or delays | ☐ prompted by the weather |
| ☐ With logistics, for instance delays to shipping | ☐ Somewhere else (please specify) |

Q.14. To what extent do you agree with these statements about the impact of environmental disruptions on supply chain operations?

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Don't know
My organisation's supply chain operations have not been negatively impacted by disruptions in the environment					
Disruptions to my supply chain start with my suppliers					
Supply chain operations are able to cope with environmental disruption without any negative impact					
Environmental disruptions have resulted in changes to processes at my organisation					
My organisation does not need to worry about environmental disruptions					
The most important impact of environmental disruptions is on the price of materials/ingredients					
Environmental disruptions are having an increased impact on supply chain operations					

Q.15. To what extent have the following disruptions impacted your organisation's supply chain operations in the past? Please select a level of impact [between 1 and 10] for each environmental disruption, where 1 is no impact, and 10 is a very severe impact, such as completely halting production for an extended time. Select 0 if you are not sure.

- | | |
|---|--|
| ☐ Disruptive weather event (e.g. flood, storm, heatwave) | ☐ Pest or disease in plants (e.g. blight) |
| ☐ Disruptive climate event (e.g. drought) | ☐ Disease in animals (e.g. avian flu) |

- ☐ Disease in humans (e.g. COVID)
- ☐ Contamination by harmful pollutant or toxin (e.g. pesticide, heavy metal)

- ☐ Disruptive disaster event (e.g. earthquake, electrical storm, dam breach)

Q.16. Which of the following disruptions do you think could potentially impact your organisation's supply chain operations in the next five years? Please select a level of potential impact for each environmental disruption.

	Definitely would have an impact	May have an impact	Definitely would not have an impact	Don't know	Not applicable
Disruptive weather event (e.g. flood, storm, heatwave)					
Disruptive climate event (e.g. drought)					
Pest or disease in plants (e.g. blight)					
Disease in animals (e.g. avian flu)					
Disease in humans (e.g. COVID)					
Contamination by harmful pollutant or toxin (e.g. pesticide, heavy metal)					
Disruptive disaster event (e.g. earthquake, electrical storm)					

Q.17. Are there other potential disruptions that could also become important? Why is this?

5. Strategies for supply chain management

This section is about what your organisation does to plan for, reduce and respond to the impacts of disruptions in the natural environment, and the ways they affect your supply chain operations.

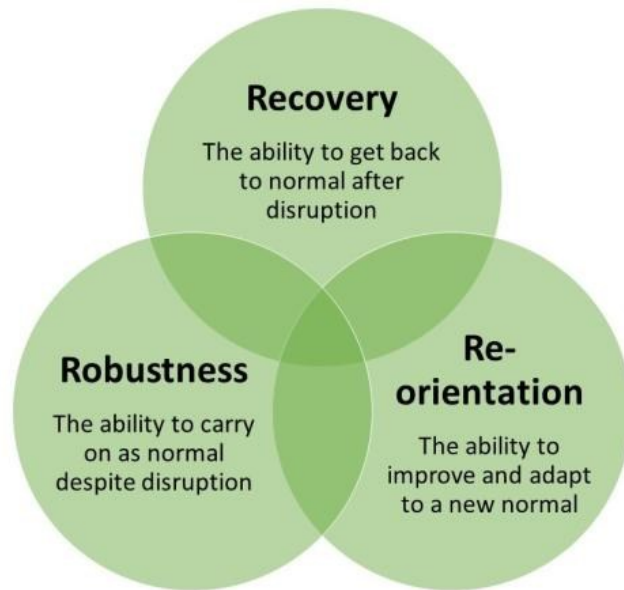
Q.18. What processes or approaches does your organisation use to try to avoid negative impacts of disruption in the environment? Please tick all that apply.

- ☐ Risk assessments include looking at environmental disruption events
- ☐ TACCP and / or VACCP processes in place for risks to food safety and fraud
- ☐ Co-operating with supply chain partners to contingency plan in case of disruption
- ☐ Discussing future potential scenarios for disruption to help plan for their prevention
- ☐ Sharing data and information regularly with suppliers, and their suppliers
- ☐ Sharing data and information regularly with customers, and their customers
- ☐ Something else (please specify)

Q.19. To what extent do you agree with the following statements about planning for, avoiding or responding to disruptions in the supply chain?

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Don't know
My organisation focuses more on responding to disruptions once they happen, rather than planning for possible disruptions					
If my organisation is impacted by a disruption, it always gets back to normal quickly					
I think that supply chain disruptions are increasing in general					
Good planning processes enable my organisation to avoid disruptions to supply chains					

Q.20. Where would you put a mark on this diagram? Resilience in food supply chains is about ...



6. Thank you and survey submission

Many thanks for your time and expertise completing this anonymous survey.

Q.21. Do you want to submit your responses?

☐ Yes

☐ No