



Status of E-Consumers in India

Consumer Welfare Index

Project Website available [here](#)

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Key Findings

Key Findings

Convenience, cost-effectiveness and variety of products available are the biggest motivators for consumers to start availing e-commerce services

Most consumers prefer to purchase Electronics & Appliances; Personal Care & Hygiene; and Apparels & Footwear online

Consumers perceive various benefits of using e-commerce: time and cost saving, and safe buying in times of the pandemic

There is scope of improving grievance redressal mechanism for e-commerce, given that it was the lowest rated parameter by respondents

Efforts to be made to increase consumers confidence on e-commerce, which may be done by adequate data protection measures, and ensuring product quality

E-commerce companies should aim at improving the grievance redressal mechanism along with improving consumer confidence, cost-effectiveness etc.

Slide 15

71.40, 66.63 and 63.20 percent of respondents voted for the same, respectively

Slide 16

72, 69 and 69 percent of the respondents voted for the same, respectively

Slide 17

82, 63 and 85 percent of the respondents claimed the same, respectively

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Steps have been taken in this regard by the government, by enacting new laws: Consumer Protection Act in 2019 and Consumer Protection (E-commerce) Rules, 2020

Slide 24

Passing the Personal Data Protection Bill 2019, and aggressive enforcement of the Consumer Protection (E-commerce) Rules, 2020 could help

Slide 36

Amongst all parameters, improvement in grievance redressal mechanism improves consumer welfare the most

Key Findings

Females have given higher scores on all indicators of consumer welfare, thereby signifying greater satisfaction with e-commerce, than males

The above, possibly explains the higher online shopping preference of females, than males for different products except for electronics & appliances

Higher aged respondents gave higher scores on all parameters of consumer welfare, and also considered them to have higher importance, than lower aged respondents

Higher educated respondents (beyond schooling) have given higher scores on all parameters of consumer welfare, give more importance to them, and also found e-commerce to be more beneficial to them, in contrast to lesser educated respondents

Respondents from state capitals have given higher scores on parameters of consumer welfare, and correspondingly, expected lesser improvement in them, than respondents from other cities

Slide 41

Such satisfaction also corresponds with the perceived benefits of e-commerce, i.e., more number of females found e-commerce to be time and cost-saving and safer, than males

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Notably, while females wanted lesser improvement in various parameters as opposed to males, they laid more importance to each of the parameters, than their counterparts

Slide 42

While more higher aged respondents found e-commerce to be beneficial for safe shopping during the pandemic, as compared to lower aged respondents, this did not translate into higher online shopping preference, possibly due to expectations of greater improvement in all the parameters

Slide 43

This may suggest more awareness generation among general masses about the gains from e-commerce. As e-commerce deepens its root in small towns and villages, this dichotomy may get blurred

Slide 44

Such respondents found e-commerce to be more beneficial, and consequently had a greater preference for shopping online for most products categories, than respondents from non-capital cities



About the Project

Project Overview

E-commerce has grown at a breakneck speed in India. Its market size has grown from US\$20bn in 2015 to US\$46.2bn in 2020, and is expected to grow to US\$111.4bn by 2025 (IBEF). According to Statista in 2021, the e-commerce market value in India will be US\$84bn and can go up to US\$200bn by 2027. The pandemic brought to the fore a transition that was predicted to accelerate by 2025.

However, there are pertinent challenges that impact consumer welfare and trust in e-commerce. These concerns primarily revolve around data protection and privacy, product safety, counterfeit goods, lack of a grievance redress system, language barriers, and predatory pricing, among other things.

The trending growth bring with itself a growing need to include consumer voice in the policymaking process to reduce the gap between those who plan and design policies and those for whom such policies are designed.

The inclusion of the needs and requirements of consumers will provide a roadmap for the government and e-commerce platforms alike for how to enhance the total consumer welfare.



Project Objectives & Envisaged Outcomes

Objectives & Research Questions

The broad objective of the project is to analyse and evaluate the status of e-consumers, while studying the e-commerce in multi-brand retail trade in India. The following research questions have been answered through the project.

- ✓ What is the estimated consumer gain or loss on different parameters of consumer welfare, emanating from e-commerce?
- ✓ What is the overall impact of e-commerce on consumer welfare?
- ✓ How can consumer welfare be enhanced through e-commerce?

Envisaged Outcome

The findings from project would help us in developing a better understanding on factors affecting consumer welfare emanating from e-commerce in India. The actionable recommendations for relevant stakeholders (policymakers/ influencers, industry players etc.) could be used by them to design consumer welfare enhancing e-commerce policies and practices.



Project Background

In recent years, the concept of consumer welfare has evolved further with the advent of the digital economy, including e-commerce. There is now a greater shift towards including non-price parameters under the umbrella of 'consumer welfare' such as the effects on quality, innovation, and the likes.

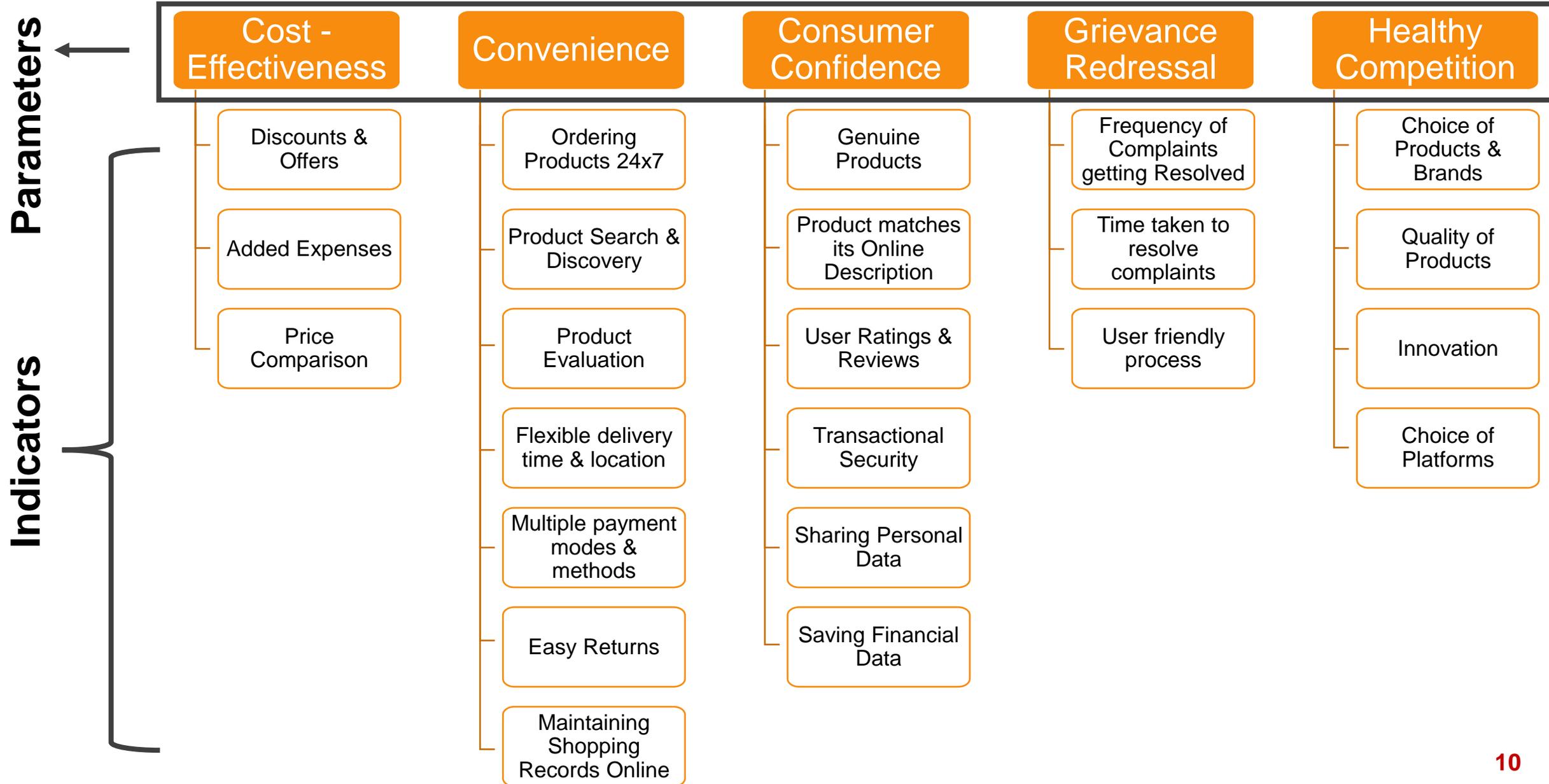
Despite the known importance of these parameters towards enhancing consumer welfare, there is hardly any assessment, at least in India, which brings forth a consumer perspective on such parameters and overall consumer welfare.

It is, therefore, important to take a bottom-up approach, including using primary research, to address this gap. Such an analysis could help design actionable recommendations and frameworks which could be used to design e-commerce policies with the intent of enhancing consumer welfare through e-commerce.

For this purpose, five consumer facing parameters, having 23 indicators in total were identified through extensive literature review and several internal brain-storming sessions. These have been listed subsequently.



Parameters & Indicators of Consumer Welfare

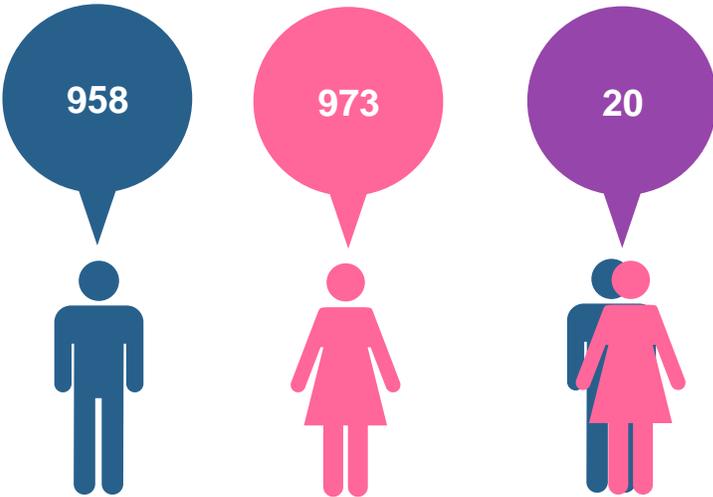




Respondent Profile

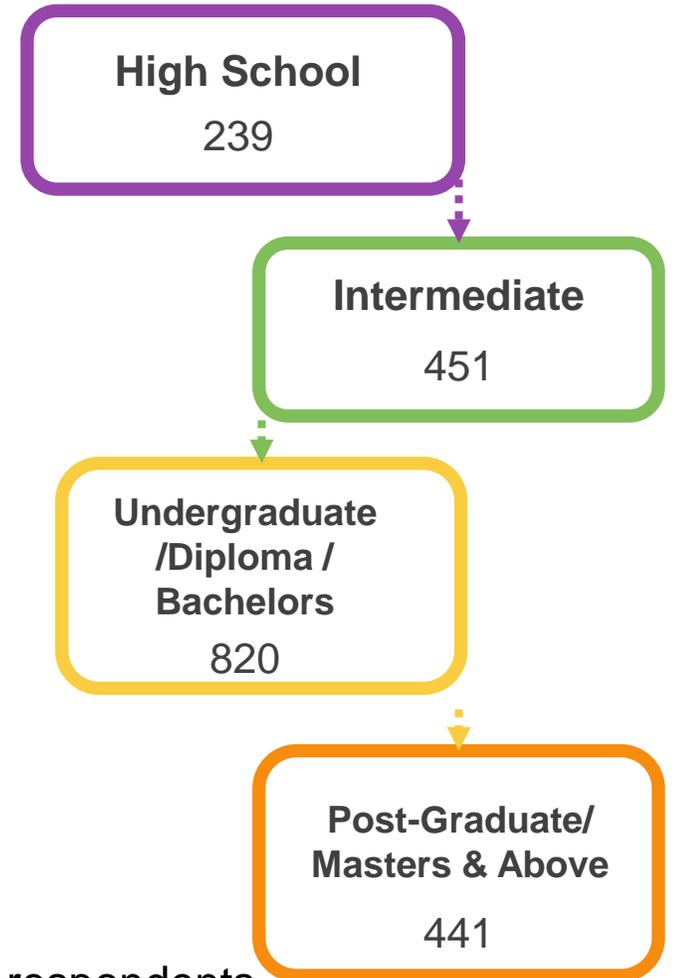
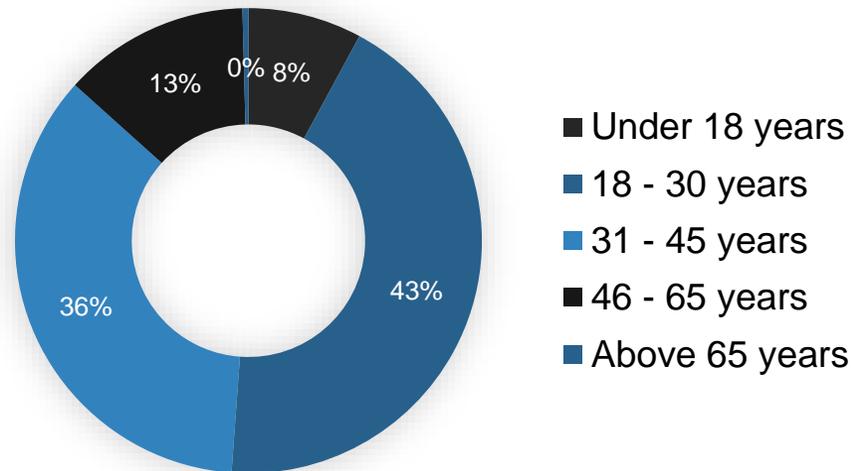
A Total of 2254 Respondents were Surveyed

Almost equal number of male-female respondents were surveyed. Few transgender were also interviewed.



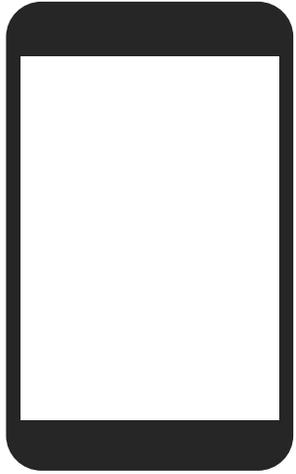
The data received from the survey was cleaned and inconsistencies were removed. After data cleaning, analysis for a total of 1951 respondents was conducted.

Age Mix of Respondents



- A purposive random sampling methodology was adopted for identifying the survey respondents
- A neutral gender ratio was maintained
- Conscious efforts were made to ensure a healthy mix of respondents from different age groups
- Respondents from different educational levels were randomly selected. However, diversity in the same was also ensured

Mode of Contacting Respondents



989

Respondents were surveyed through online questionnaires. This outreach method was adopted in light of the ongoing COVID-19 pandemic

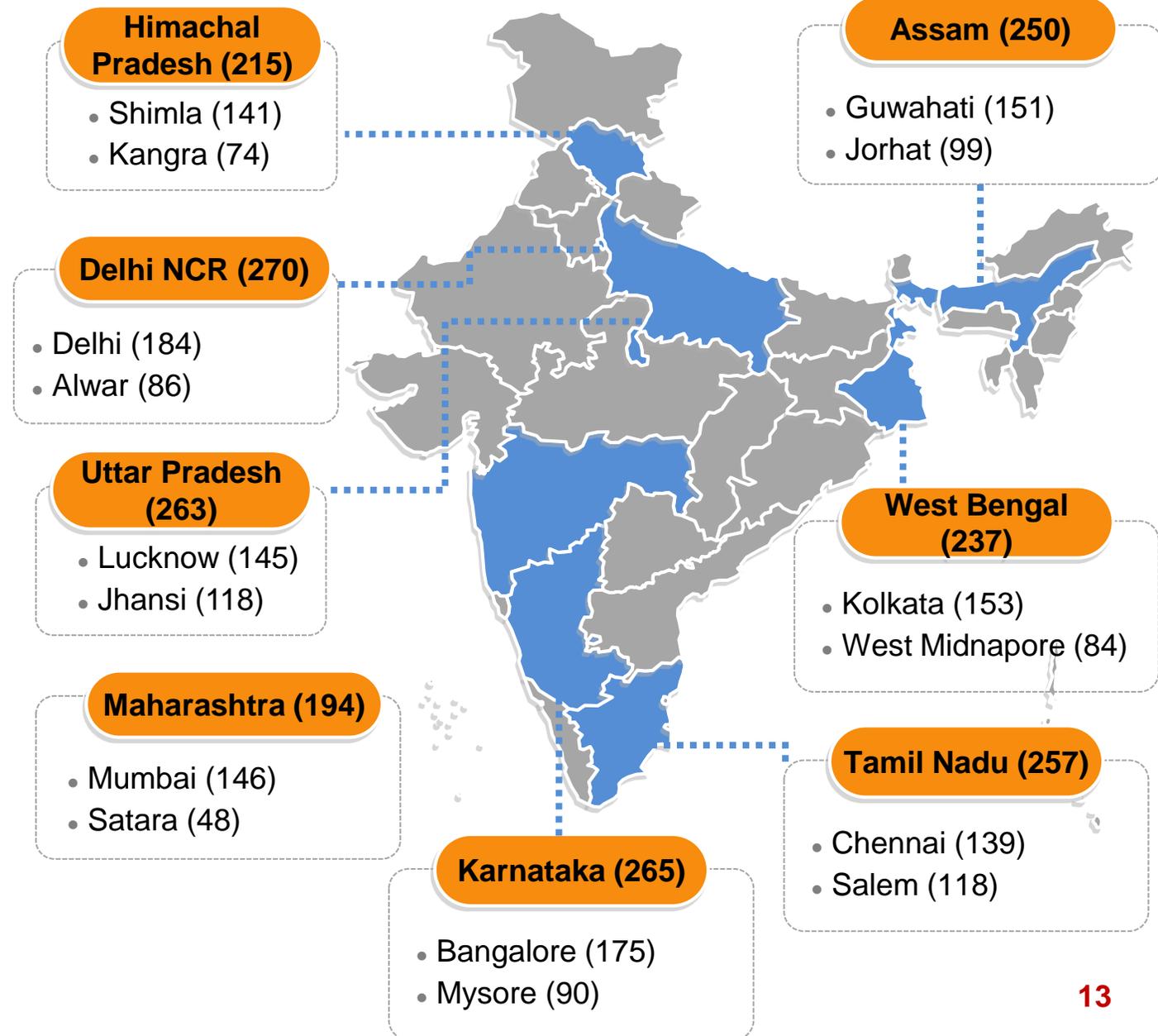


962

Respondents were surveyed through on-ground in-person interviews

* A structured questionnaire was prepared in English, for conducting surveys. The same was translated in regional languages as well (Hindi, Marathi, Bengali and Tamil), for convenient administration

Geographic Diversity of Respondents





Consumer Preferences and Perceptions

Reasons for using E-Commerce for the 'First' time



Ease and convenience of online shopping: **71.40 percent**



Greater variety of products and brands: **63.20 percent**



Discounted and Low priced products: **66.63 percent**



Products unavailable in nearby places: **36.85 percent**



Curiosity of buying online: **40.80 percent**



Recommended by family & friends: **29.98 percent**

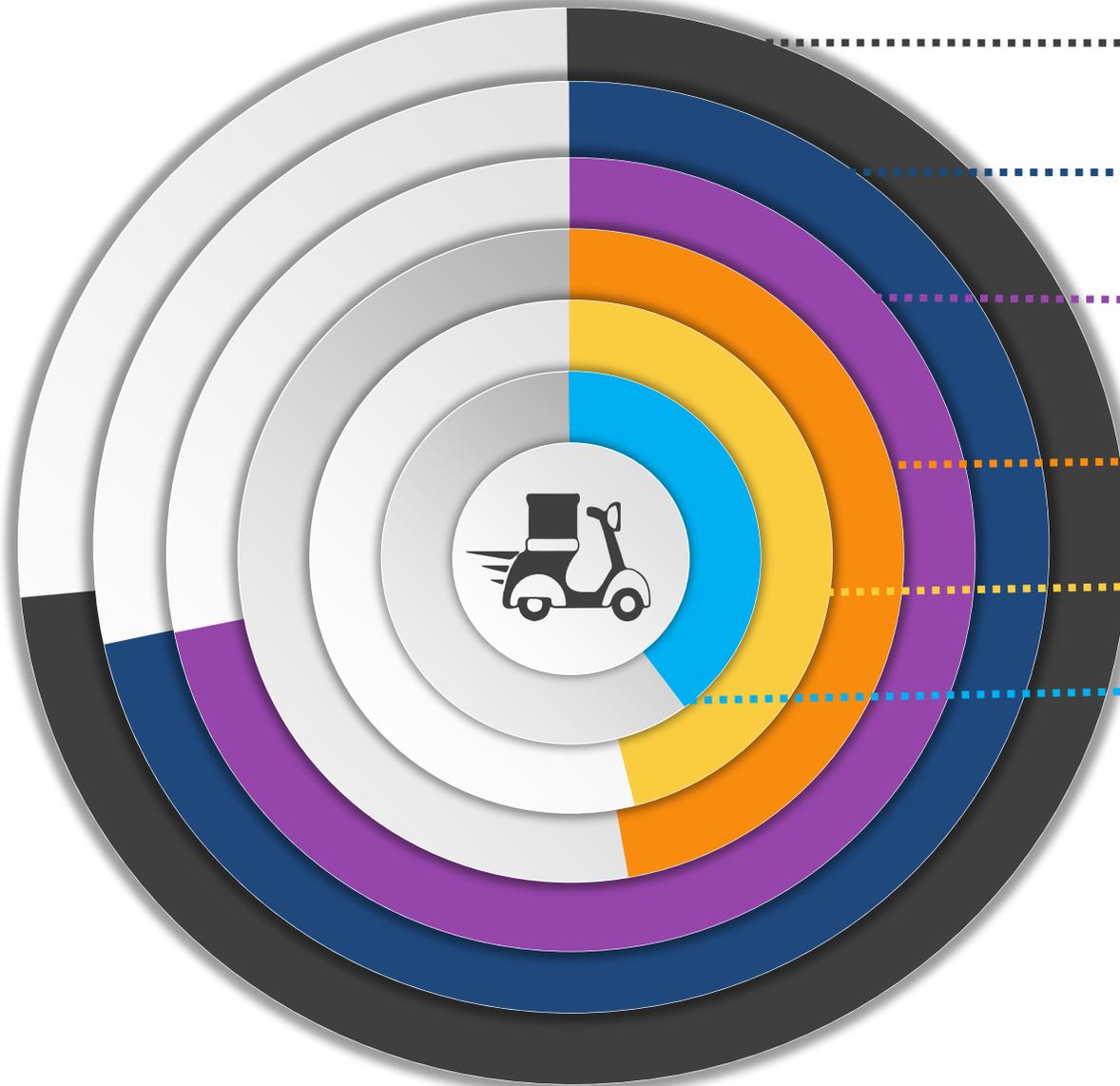


Why did you decide to use e-commerce platforms for the first time?

* This was a multiple choice question, i.e., respondents were free to choose more than one reason of using e-commerce platforms for the first time

Consumers Preferred Mode of Shopping

Respondents Preferring Online Mode of Shopping



-  Electronics and Appliances – 72% Online
-  Apparels and Footwear – 69% Online
-  Personal Care and Hygiene – 69% Online
-  Grocery – 46% Online
-  Home and Kitchen – 45% Online
-  Books and Stationery – 36% Online

More Online
More Offline

 Which mode of shopping (online or offline) do you prefer for the following product categories?

Perceived Benefits of using E-Commerce for Consumers



Time Saving

Consumers think online shopping is more time saving compared to other modes of shopping

82%



Do you think online shopping is more time saving compared to other modes of shopping?



Cost Saving

Consumers think online shopping has helped them save on their monthly shopping expenses

63%



Do you think online shopping has helped you save on your monthly shopping expenses?



Safer in times of Pandemic

Consumers think online shopping is safe to buy products during the pandemic

85%

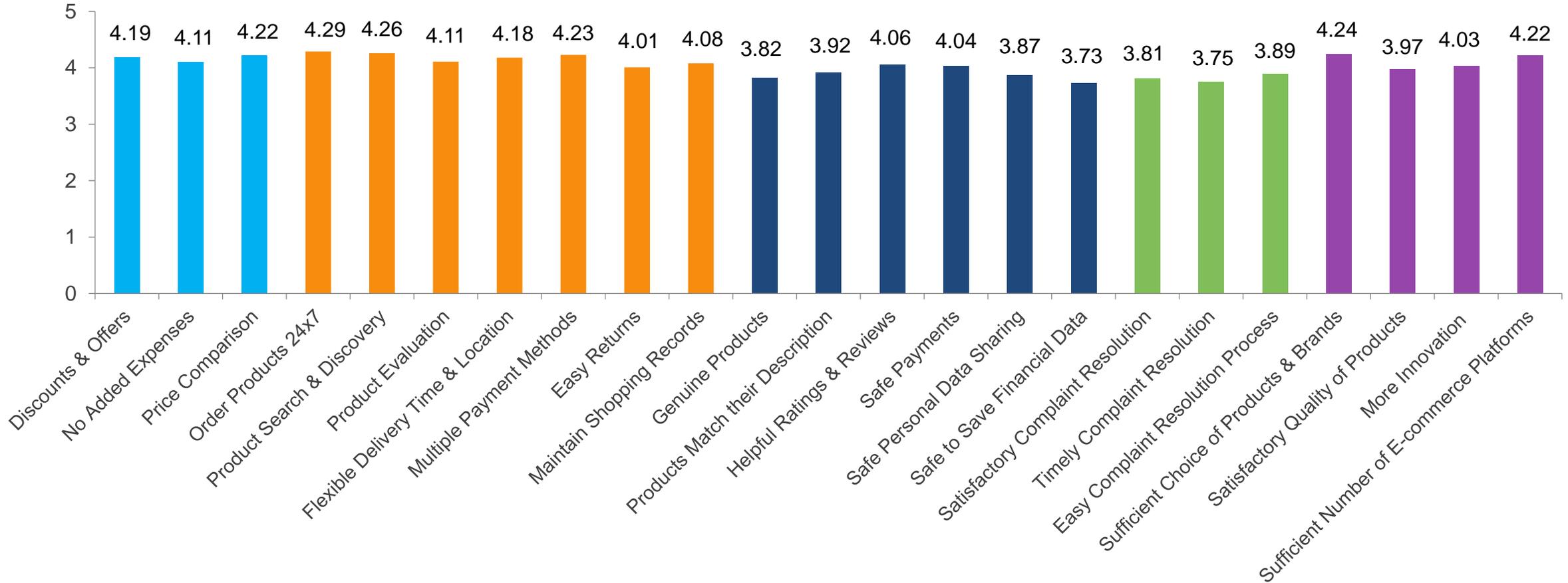


Do you think online shopping made it safe for you to buy products even during the ongoing covid-19 pandemic?



Consumer Welfare from E-Commerce

Indicator Scores for Various Parameters



Cost Effectiveness
The Parameter received an average score of **4.17**

Convenience
The Parameter received an average score of **4.17**

Consumer Confidence
The Parameter received an average score of **3.91**

Grievance Redressal
The Parameter received an average score of **3.82**

Healthier Competition
The Parameter received an average score of **4.12**



Please rate your level of agreement with the following statements, on a scale of 1 to 5 (1: Strongly Disagree, 2: Somewhat Disagree, 3: Neutral, 4: Somewhat Agree, 5: Strongly Agree).

A close-up photograph of a person's hand holding a silver credit card over a laptop keyboard. The card is held horizontally, and the keyboard is visible in the background, slightly out of focus. The lighting is warm and soft, highlighting the texture of the hand and the metallic sheen of the card.

Consumers Claim to find E-Commerce Cost-Effective

Consumers gave a high score of 4.17 / 5.00 on the parameter of cost-effectiveness

63 percent respondents also claimed that e-commerce had reduced their monthly shopping expenditure

Threats to Cost-Effectiveness of E-Commerce



Notably, availability of discounts and offers on e-commerce platforms was one of the indicators of their agreement with e-commerce being cost effective, which are often effectuated through flash sales.

However, the government through the proposed amendments to the Consumer Protection (E-Commerce) Rules, 2020, intends to ban 'flash sales'. **[draft Rules 3(1)(e) and 5(16)]**. This may have adverse impact on consumer welfare.

While the intention of the proposed Rules appears to be directed at curbing practices of 'preferential treatment' and 'deep discounting', there are ambiguities in the text, for instance what may constitute 'fraudulently intercepting the ordinary course of business using technological'. Such regulatory ambiguity may impact genuine operations of e-commerce entities. While the Department of Consumer Affairs has clarified that 'conventional flash sales by third parties' would still be permitted there still exists a confusion on how to accurately and uniformly distinguish between the two.

Convenience

Multiple
Payment
Modes

Order
Products 24x7

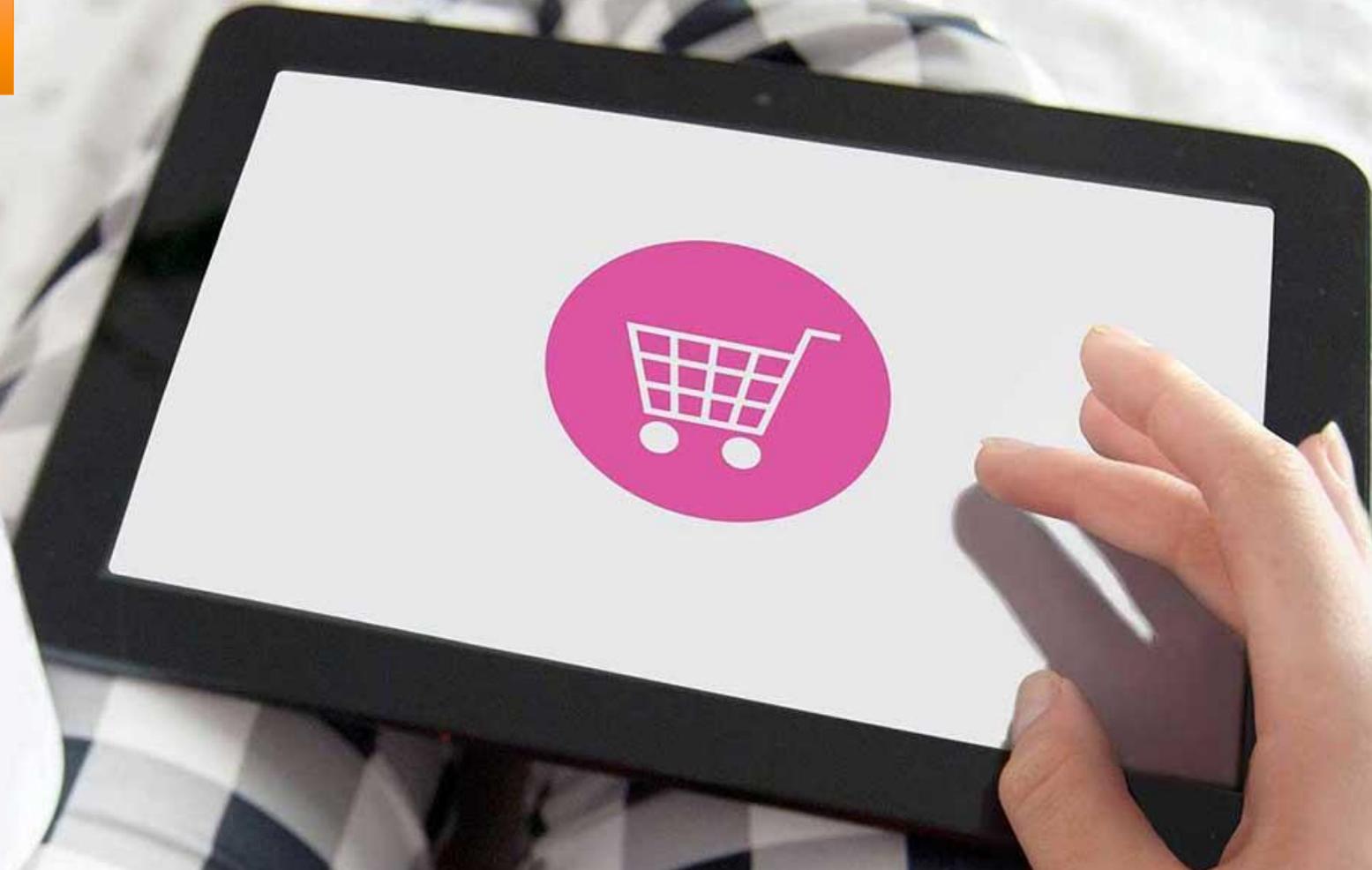
Product
Evaluation

Maintain
Shopping
Records

Flexible
Delivery

Product
Discovery

Easy
Returns



Threats to Convenience

Various provisions of the proposed amendments to the Consumer Protection (E-Commerce) Rules, 2020 threaten consumers convenience emanating from e-commerce.

[draft Rule 3(1)(c)]

Ambiguously defines 'cross-selling'. The purpose of this provision is also not clear.

[draft Rules 5(12)(a) & (b)]

Mandates e-commerce entities to provide adequate disclosure to users with respect to (a) Name of the entity providing data for cross-selling; and (b) Data of such entity used for cross-selling.

[draft Rule 5(7)(c)]

E-commerce entities to ensure that the ranking parameters of goods do not discriminate against domestic goods and sellers.

[draft Rule 6(8)]

Marketplace e-commerce entities have been prohibited from advertising a body of sellers for the purpose of subsidising a sale on their platforms.

While such information may be important for consumers in the interest of transparency, the same should not be made prominently available on the main page of the platform, since it could lead to information overload for consumers, thereby reducing their convenience with respect to product evaluation. Alternatively, such information may be provided in its data protection and/or privacy policy. If the intention is to prevent 'leveraging' of consumers' data by e-commerce entities, the same can also be dealt by the Competition Commission of India (CCI).

While the rules appears to be well-intentioned for providing a level-playing field for domestic and foreign goods, as well as between different sellers; these may interfere with product discovery, an aspect with which consumers claim to be satisfied. Also, such provisions may not be needed in a consumer protection legislation as the issue of 'preferential treatment' can be dealt by the CCI. In addition, a separate platform-to-business (P2B) regulation may be considered.

It is secure to pay online

4.04/5.00

3.82/5.00

The products available online are genuine and not fake

It is safe to share personal data when shopping online

3.87/5.00

3.92/5.00

The products delivered match the product description given online

It is safe to save financial data when shopping online

3.73/5.00

4.06/5.00

The user rating and review of products help in making an informed purchase when shopping online



Consumer Confidence

Data Protection



India currently lacks a dedicated personal data protection law. The proposed amendments to the Consumer Protection (E-commerce) Rules, 2020 have given a few provisions in this regard.

- Prohibition on marketplace e-commerce entities from using information collected by it, for sale or promotion of their own goods (leveraging of data). **[draft Rule 5(14)(f)]**
- Prohibition on e-commerce entities from disclosing any information of a consumer to any person, without the consumer's consent. **[draft Rule 5(14)(e)]**

Although these provisions are well-intentioned towards protecting consumers data, they remain patch-work in the absence of a dedicated personal data protection law. The issue of 'leveraging of data' can be dealt by CCI and/or a separate P2B regulation.

Other provisions such as the one given below, may have adverse impact on consumers privacy, especially in light of the still pending Personal Data Protection Bill 2019 **(PDPB)**.

- E-commerce entities are required to provide: information under its control or possession to government agencies, on receipt of an order. **[draft Rule 5(18)]**

These issues may dent consumers confidence on e-commerce, as corroborated by the survey findings. Accordingly, there is an urgent need of passing the comprehensive law, i.e. PDPB. Platforms adhering to transparent data processing practices would also help in this regard (self regulation).

Genuineness of Products

Not only have consumers given a lower score on genuineness of products sold online, and actual products matching their online description; the government has also recognised such challenges of e-commerce sales.

Accordingly, the proposed amendments to the Consumer Protection (E-commerce) Rules, 2020 have tried to deal with such issues. However, the same appear to be mistargeted on e-commerce platforms (marketplace model), instead of actual sellers.



- **Fall back liability [draft Rules 3(1)(d) and 6(9)]:** The provisions go against the fundamental legal principle of safe harbour protection against third-party conduct, given that 'marketplace e-commerce entities' are mere 'intermediaries' and have no control over the products sold by sellers on its platform. Notably, The Foreign Direct Investment Rules under Press Note 2 warrant marketplace entities to not control any sellers on their Platform, and not to provide any warranty for goods sold on such marketplace. Thus, the proposed amendment also goes against the spirit of foreign direct investment (FDI) rules. Accordingly, sellers themselves should be made accountable for failing to deliver goods/services ordered by a consumer, e-commerce entities can, however, facilitate in this regard.
- **Mis-selling [draft Rules 3(1)(k) and 5(11)]:** Not only is the provision misplaced under the Rules, i.e. should have been dealt with under the Consumer Protection Act 2019; it also misplaces liability for mis-selling on e-commerce entities, instead of the seller – based on the same premise as mentioned above.

Grievance Redressal

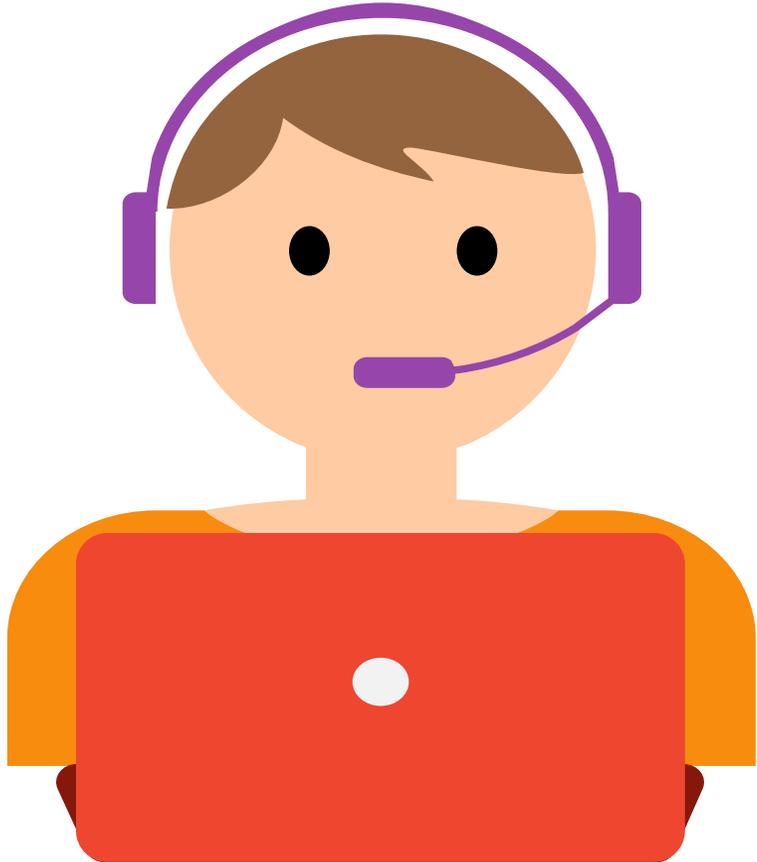


“ Although consumers claim to be somewhat satisfied with the grievance redressal mechanism available in online shopping, the same has scope of improvement, given that it was the lowest rated parameter of consumer welfare.

While steps have been taken in this regard by the government by enacting a new Consumer Protection Act, 2019 and a dedicated Consumer Protection (E-commerce) Rules, 2020. However, it is to be seen how the new regime works, including the grievance redressal mechanism.

”

Threats to Grievance Redressal in E-commerce



Consumers give importance to having an appropriate grievance redressal mechanism for e-commerce. While the effectiveness of the new consumer protection regime is yet to be examined, there exists some ambiguities with respect to the proposed amendments to the Consumer Protection (E-commerce) Rules, 2020.

- Need to examine whether the grievance redress mechanism under the new consumer protection regime is working well or not, particularly focusing on the Rules 4(4) and 4(5) of the Consumer Protection (E-Commerce) Rules, 2020.
- The appointments of three officers – Chief Compliance Officer, Nodal Contact Person and Resident Grievance Officer – for the purpose of grievance redressal as proposed by the draft amendments to the Consumer Protection (E-Commerce) Rules, 2020 will increase cost of compliance. This can hit new e-commerce platforms and start-ups hard. **[draft Rule 5(5)]**.

In addition, there are overlaps with similar obligations in the recently notified Intermediary Guidelines under the Information Technology Act, 2000. It is not clear whether the same person appointed as grievance officer can cater to the requirements of the E-Commerce Rules and Intermediary Guidelines. The timelines under the two legislations are also different, which can lead to ambiguity.

Consumers' interest lies in propagation of e-commerce ecosystem. Over-regulation and ambiguous rules would adversely affect the growth of e-commerce in India.

Threats to Healthier Competition in E-commerce

In light of the given consumer satisfaction with competition in e-commerce, the government should guard against over-regulating the e-commerce space as the same could be counterproductive. The proposed amendments to the Consumer Protection (E-commerce) Rules, 2020, apparently being sub-optimal may adversely affect competition and consumer welfare.



Private label and 'platform neutrality' [draft Rules 5(14) (d) and (f)]

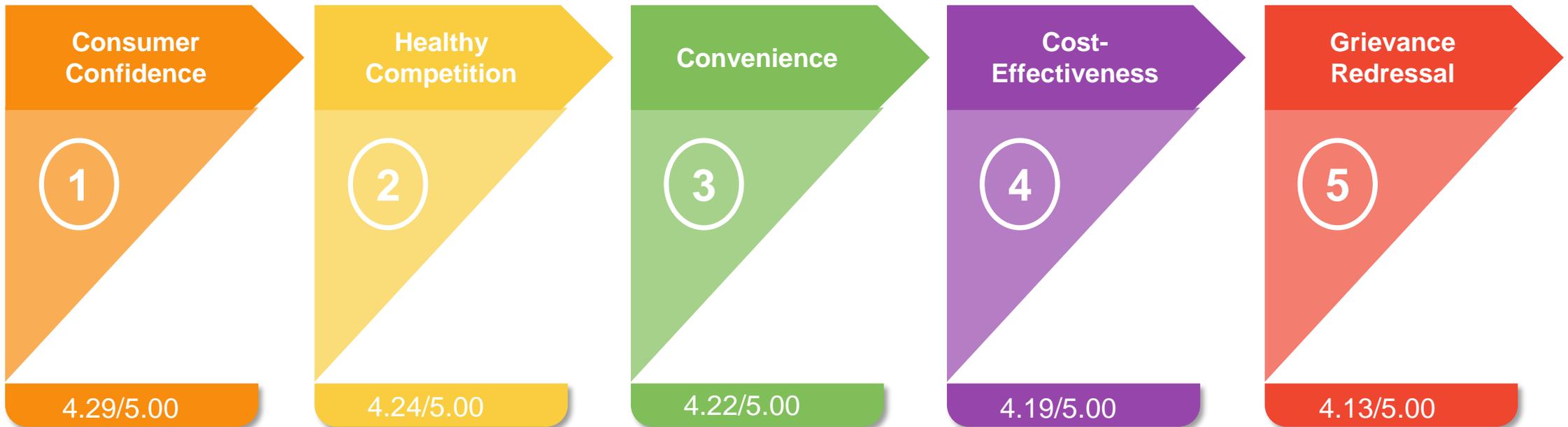
The intent behind these provisions seems to check any discriminatory practices adopted by any e-commerce entity favouring private label (or its brand) and other substitutable products on its platform. It is breach of 'platform neutrality', but prohibiting private labels itself may limit consumer choice. To deal with platform neutrality the consumer protection regime does not seem to be a suitable forum. These are more of a P2B concerns than direct consumer concerns. While CCI can deal on a case-by-case basis under the competition law, an *ex-ante* P2B regulation can be useful to avoid any breach of 'platform neutrality' by e-commerce entities..

Abuse of dominance [draft Rule 5(17)]

The proposed amendment to check abuse of dominance by e-commerce platforms should be better left for the CCI to deal with under the Competition Act, 2002. It would be futile to have dual regulation on the same subject matter.

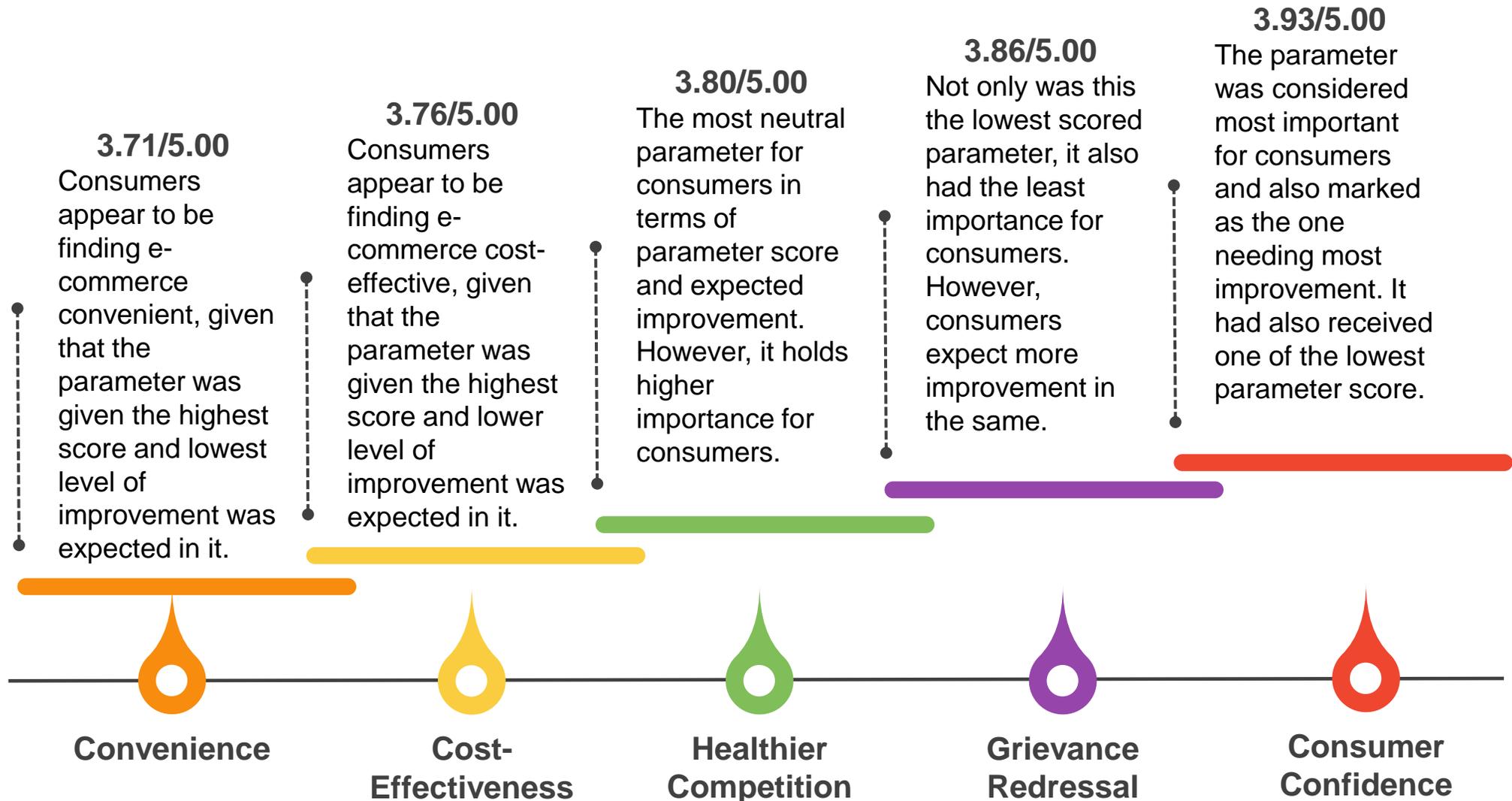
Consumers Perceived Importance of Parameters

While consumers perceive all parameters to be of all almost equal importance, the difference between them has been given below.



Please rate the importance of the parameters listed below when opting to shop online, on a scale of 1 to 5 (1: Not at all Important, 2: Less Important, 3: Somewhat Important, 4: Important, 5: Very Important).

Consumers Expectations for Improvement



Please rate the level of improvement required for each parameter basis your experience of shopping online, on a scale of 1 to 5 (1: No Improvement Required to 5: Most Improvement Required).



The Consumer Welfare Scorecard

Methodology adopted for Estimating Consumer Welfare

The following methodology was used to to analyse Consumer Welfare emanating from e-commerce, based on the parameters and indicators mentioned previously:

1. Score of each parameter (P) was calculated foreach respondent: $(P) = \text{Summation of scores of all the Indicators (I) for the parameter} / \text{Total number of indicators for the parameter.}$

$$P_1 = (\sum I_1 I_2 I_3 \dots) / \text{Number of Indicators}$$

$P_1 = \text{Average of score of all the Indicators for the Parameter (P}_1)$

2. This was further aggregated to reach a total Consumer Welfare score (CW) for each respondent: $(CW) = \text{Summation of scores of all the Parameters at a respondent level.}$

$$CW = P_1 + P_2 + P_3 + P_4 + P_5$$

3. Average Consumer Welfare Score (ACW) was calculated by averaging the CW of all respondents: $(CW) = \text{Summation of Consumer Welfare} / \text{Total number of respondents.}$

$$ACW = (CW_1 + CW_2 + \dots + CW_{1951}) / \text{Total number of respondents}$$

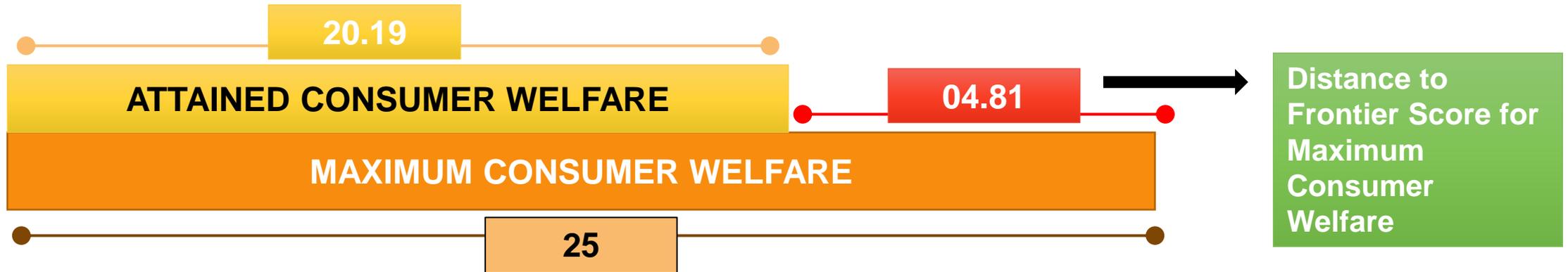
Consumer Welfare Scorecard

S. No. Parameters & Indicators	Score	S. No. Parameters & Indicators	Score
1 Cost-Effectiveness	4.17	2 Convenience	4.17
1.1 Discounts & Offers	4.19	2.1 Order Products 24x7	4.29
1.2 No Added Expenses	4.11	2.2 Product Search & Discovery	4.26
1.3 Price Comparison	4.22	2.3 Product Evaluation	4.11
Importance for Consumers	4.19	2.4 Flexible Delivery Time & Location	4.18
Expectation of Improvement	3.76	2.5 Multiple Payment Methods	4.23
		2.6 Easy Returns	4.01
4 Grievance Redress	3.82	2.7 Maintain Shopping Records	4.08
4.1 Satisfactory Complaint Resolution	3.81	Importance for Consumers	4.22
4.2 Timely Complaint Resolution	3.75	Expectation of Improvement	3.71
4.3 Easy Complaint Resolution Process	3.89		
Importance for Consumers	4.13	3 Consumer Confidence	3.91
Expectation of Improvement	3.86	3.1 Genuine Products	3.82
		3.2 Products Match their Description	3.92
5 Healthy Competition	4.12	3.3 Helpful Ratings & Reviews	4.06
5.1 Sufficient Choice of Products & Brands	4.24	3.4 Safe Payments	4.04
5.2 Satisfactory Quality of Products	3.97	3.5 Safe Personal Data Sharing	3.87
5.3 More Innovation	4.03	3.6 Safe to Save Financial Data	3.73
5.4 Sufficient Number of E-commerce Platforms	4.22	Importance for Consumers	4.29
Importance for Consumers	4.24	Expectation of Improvement	3.93
Expectation of Improvement	3.80		
		Achieved Consumer Welfare through E-commerce	20.19
		Distance to Frontier Score	4.81
		Maximum Consumer Welfare possible through E-commerce	25

* Scores mentioned above are average respondent scores out of a maximum of 5.

Distance to Frontier Score

Distance to Frontier Score = Maximum Consumer Welfare – Attained Consumer Welfare



The above figure indicates the Distance to Frontier Score for maximum Consumer Welfare through E-commerce, i.e. the distance of Consumer Welfare to the “frontier”, which means the distance yet to be travelled to reach the maximum Consumer Welfare.

The formula for the same has been explained above and the estimated Distance to Frontier score through all the 05 identified parameters is **4.81**.

Estimated Consumer Welfare through each Parameter

In order to calculate the estimated consumer welfare through each parameter, multiple linear regression analysis is done. The dependent variable is Total Consumer Welfare (TCW). For calculating TCW, the following methodology has been used.

- Consumers have stated the importance they give to each parameter. The weighted parameter score is calculated by multiplying the ratio of parameter importance to total importance of all parameters and the parameter score.
- At respondent level, the TCW is obtained by taking an average of all the weighted parameter scores. The minimum value of TCW =0 and the maximum value of TCW = 1. The formula is shown below:

$$TCW_1 = \sum [(Importance\ of\ a\ Parameter / Total\ Importance\ of\ all\ Parameters) * Parameter\ Score] / Total\ number\ of\ parameters$$

Note: The achieved consumer welfare shown in Slide 34 is 20.19 out of 25. In percentage terms, this is 80.68 percent.

The average of the Total Consumer Welfare of all respondents calculated using the method mentioned in this slide is 0.8066 out of 1. In percentage terms, this is 80.66 percent. Since consumer welfare is approximately equal by using both methods, this validates that consumer welfare is 80 percent achieved.

For the regression analysis, TCW has been used as it incorporates the importance a consumer gives to a particular parameter.

Estimated Consumer Welfare through each Parameter

For independent variables, following methodology has been used.

- Respondents have given their level of agreement to the indicator questions on a scale of 1 to 5 (1: Strongly Disagree, 2: Somewhat Disagree, 3: Neutral, 4: Somewhat Agree, 5: Strongly Agree). As the parameter score has been calculated by averaging the indicator scores for the respective parameter, a parameter score above 3 is considered to benefit consumers if they use e-commerce services and below 3 is considered as consumer not benefiting from use of e-commerce services.
- Therefore, a parameter score above 3 is regarded as consumer experiencing the benefit from the said parameter and is thus coded as 1 and below or equal to 3 is regarded as consumer not experiencing the benefit from the said parameter and is coded as 0.
- The new coded parameter scores are named as P1_1, P2_2, P3_3, P4_4 and P5_5 and are used as independent variables in the regression model. Therefore, there are a total of five independent variables. Each variable is a dichotomous variable with values 1 or 0.

A multiple linear regression model is made which is presented below:

$$\text{Estimated TCW} = b_0 + b_1 \cdot P1_1 + b_2 \cdot P2_2 + b_3 \cdot P3_3 + b_4 \cdot P4_4 + b_5 \cdot P5_5 + u^{\wedge}$$

Here, b_0 is the constant term and b_1 , b_2 , b_3 , b_4 and b_5 are coefficients of the independent variable. After running the regression model, following results are obtained.

Estimated Consumer Welfare through each Parameter

The output of the regression model is presented below:

```
. reg TCW P1_1 P2_2 P3_3 P4_4 P5_5
```

Source	SS	df	MS			
Model	30.4288677	5	6.08577355	Number of obs =	1951	
Residual	8.35987289	1945	.004298135	F(5, 1945) =	1415.91	
Total	38.7887406	1950	.019891662	Prob > F =	0.0000	
				R-squared =	0.7845	
				Adj R-squared =	0.7839	
				Root MSE =	.06556	

TCW	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
P1_1	.097696	.0056646	17.25	0.000	.0865867	.1088053
P2_2	.0813468	.0070582	11.53	0.000	.0675043	.0951893
P3_3	.0845163	.0054254	15.58	0.000	.0738761	.0951566
P4_4	.0982225	.0041265	23.80	0.000	.0901296	.1063153
P5_5	.0918336	.0063965	14.36	0.000	.079289	.1043783
_cons	.4236091	.0050676	83.59	0.000	.4136706	.4335475

- R² represents the goodness-of-fit of the regression model. The R² obtained for the regression model is 0.7845. This means that the model explains 78 percent of the observed data. In other words, 78 percent of the data fits the regression model.
- Coefficients of all the parameters are significant and therefore, none of the parameters are rejected.

Estimated Consumer Welfare through each Parameter

Interpretation

Constant/ Parameter	Parameter Coefficient	Interpretation
Constant	0.4236091	If consumers don't benefit from any of the parameters, the total consumer welfare is 0.423.
Cost-Effectiveness (P1_1)	0.097696	Keeping all other parameters constant, if a consumer experiences cost-effectiveness in e-commerce, then his/her total consumer welfare would increase by 0.097.
Convenience (P2_2)	0.0813468	Keeping all other parameters constant, if a consumer experiences convenience in e-commerce, then his/her total consumer welfare would increase by 0.081.
Consumer Confidence (P3_3)	0.0845163	Keeping all other parameters constant, if a consumer has confidence in e-commerce, then his/her total consumer welfare would increase by 0.084.
Grievance Redressal (P4_4)	0.0982225	Keeping all other parameters constant, if a consumer experiences appropriate grievances redressal in e-commerce, then his/her total consumer welfare would increase by 0.098.
Healthier Competition (P5_5)	0.0918336	Keeping all other parameters constant if a consumer experiences healthier confidence in e-commerce, then his/her total consumer welfare would increase by 0.091.

Findings

- If consumers experience benefit from all parameters simultaneously, the average consumers' TCW has increased by 0.453612.
- Since b4 is 0.098, improvement in grievance redressal mechanism will improve the TCW more as compared to improvement in other parameters. However, improvement in other parameters also improves consumer welfare substantially.



Perspective of Diverse Consumers

Gender as a Variable

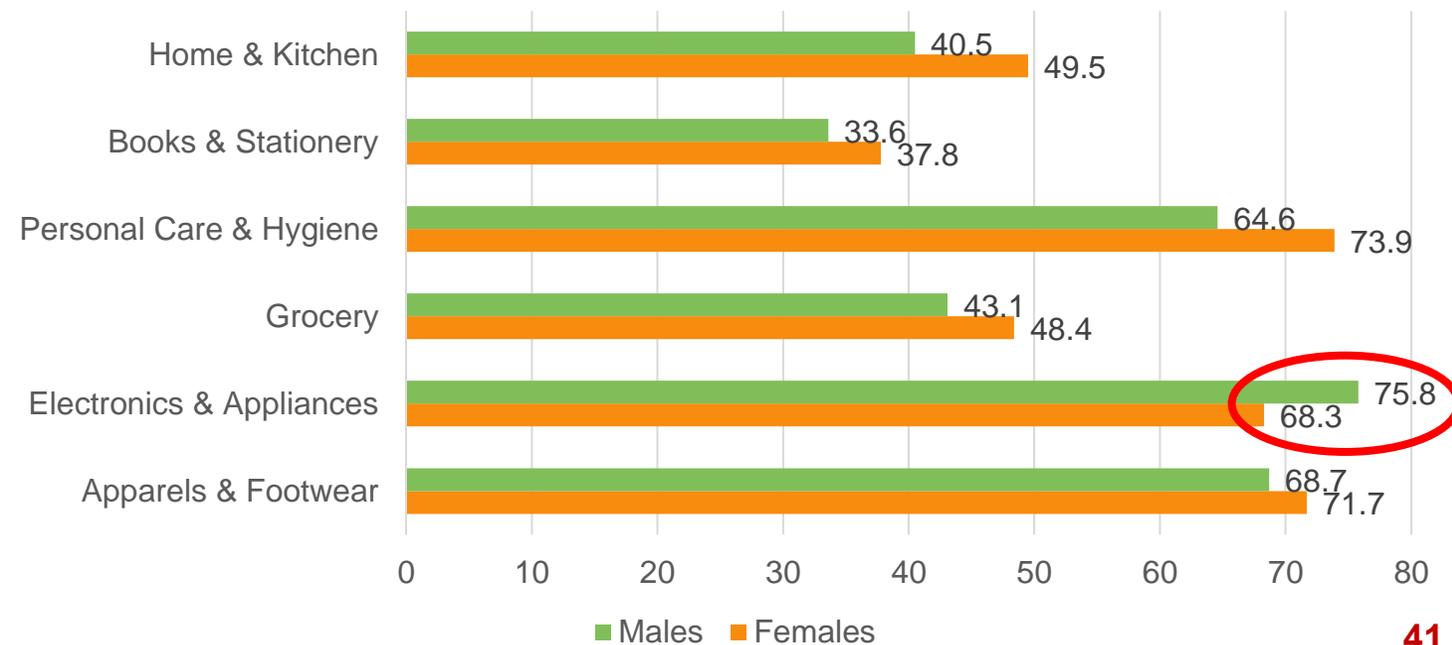
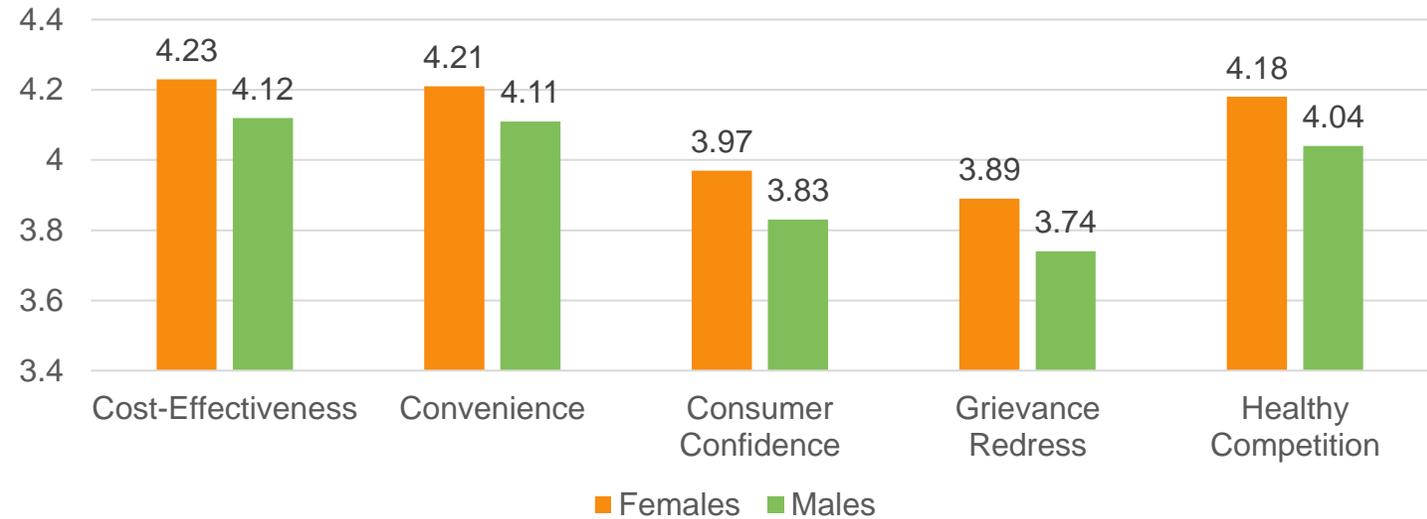
Females have given higher **scores** on all indicators of consumer welfare, thereby signifying greater satisfaction with e-commerce, than males. A parameter level comparison has been given in the adjoining graph.

Correspondingly, females also wanted lesser **improvement** in various parameters, as opposed to males (**Except Cost-Effectiveness**, wherein both wanted equal improvement of 3.76). Convenience (**3.70 vs 3.72**), Consumer Confidence (**3.88 vs 3.97**), Grievance Redress (**3.83 vs 3.87**) & Healthy Competition (**3.74 vs 3.84**).

Furthermore, more females than males found e-commerce to be **beneficial**, with respect to time-saving (**84 vs 81**), cost-saving (**65 vs 62**) and safer for shopping during the pandemic (**89 vs 82**).

This possibly explains the higher online **shopping preference** of females, than males (**except Electronics & Appliances**). Product category specific shopping preferences has been given in the adjoining graph in percentages.

However, females gave more **importance** to each of the parameters, in contrast to males. Cost- Effectiveness (**4.28 vs 4.09**), Convenience (**4.29 vs 4.16**), Consumer Confidence (**4.33 vs 4.24**), Grievance Redress (**4.18 vs 4.09**) & Healthy Competition (**4.28 vs 4.20**)



Age as a Variable

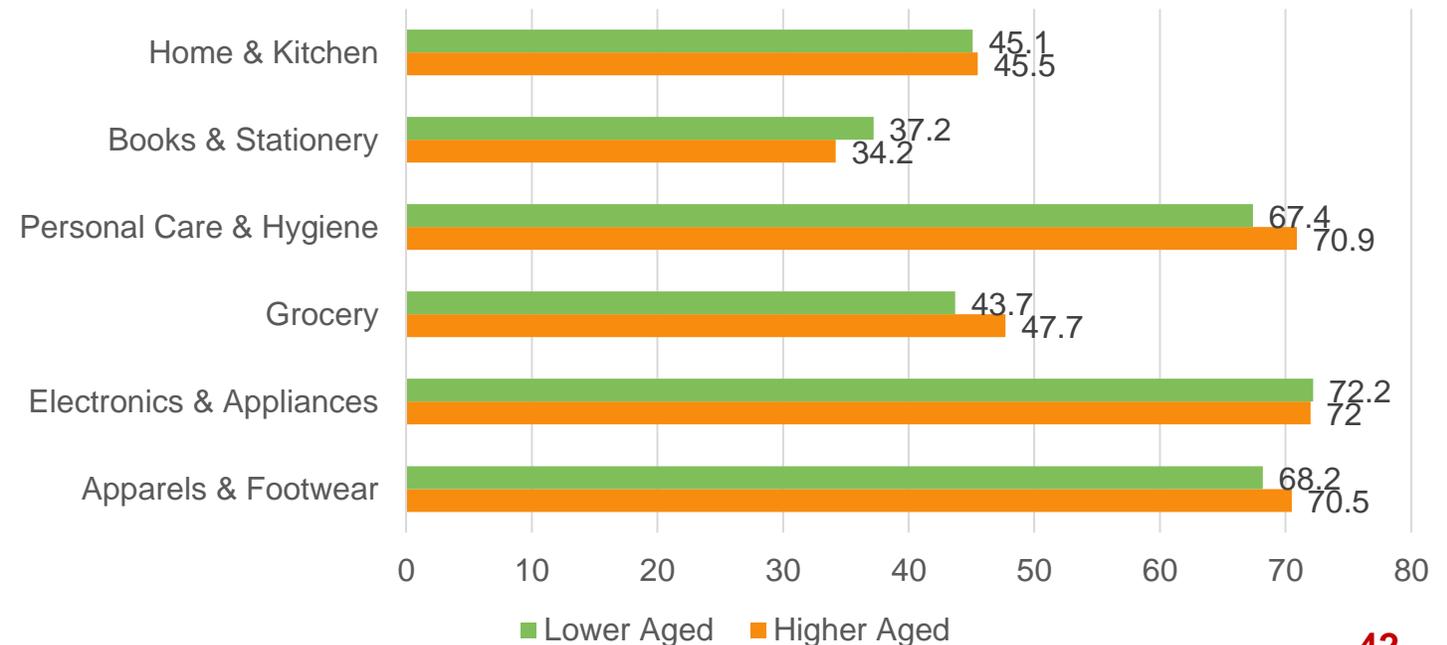
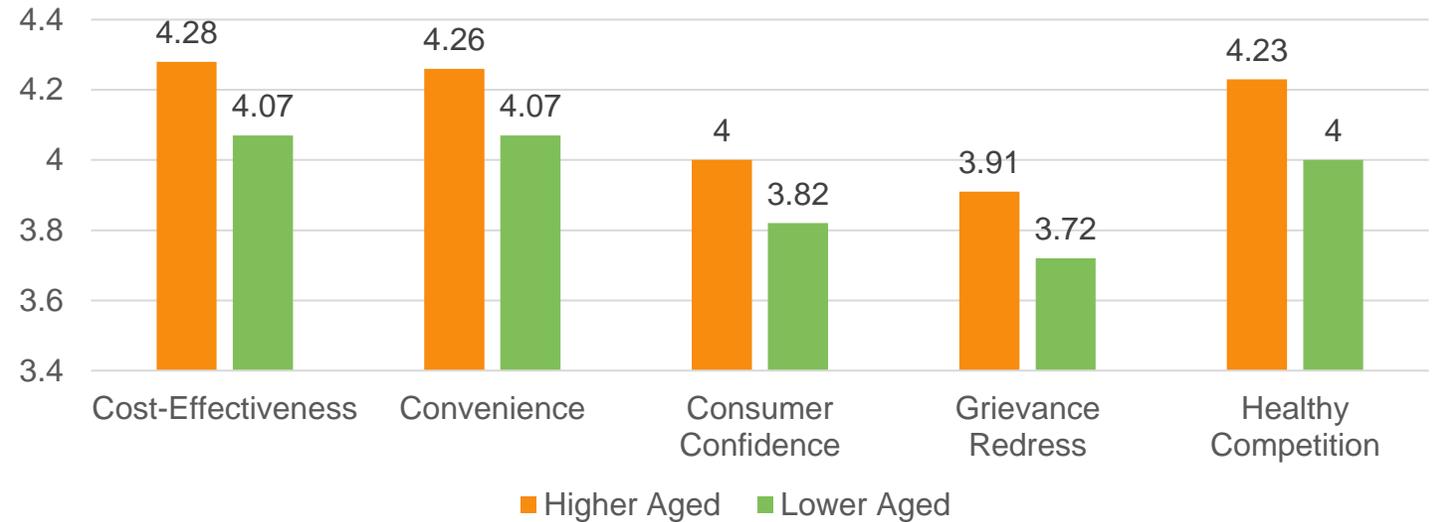
Respondents aged above 30 years (higher aged) have given higher **scores** on all parameters of consumer welfare, thereby signifying greater satisfaction with e-commerce, than those aged below 30 years (lower aged). This has been given in the adjoining graph.

Also, they gave more **importance** to various parameters, as opposed to lower aged respondents. Cost-Effectiveness (**4.32 vs 4.07**), Convenience (**4.33 vs 4.12**), Consumer Confidence (**4.40 vs 4.18**), Grievance Redress (**4.29 vs 3.99**) & Healthy Competition (**4.30 vs 4.18**).

Lastly, more higher aged respondents found e-commerce to be **beneficial** for safe shopping during the pandemic, as compared to lower aged respondents (**89% vs 82%**), while both categories of respondents found e-commerce to be almost **equally beneficial** wrt time and cost saving.

Despite the above, respondents from both the age categories were found to be having similar online shopping preferences, as can be seen in the adjoining graph (in percentages).

This could possibly be due to the fact that higher aged respondents expecting more **improvement** in each of the parameters, than lower aged respondents. Cost-Effectiveness (**3.87 vs 3.65**), Convenience (**3.78 vs 3.64**), Consumer Confidence (**3.99 vs 3.87**), Grievance Redress (**3.94 vs 3.78**) & Healthy Competition (**3.87 vs 3.73**).



Education as a Variable

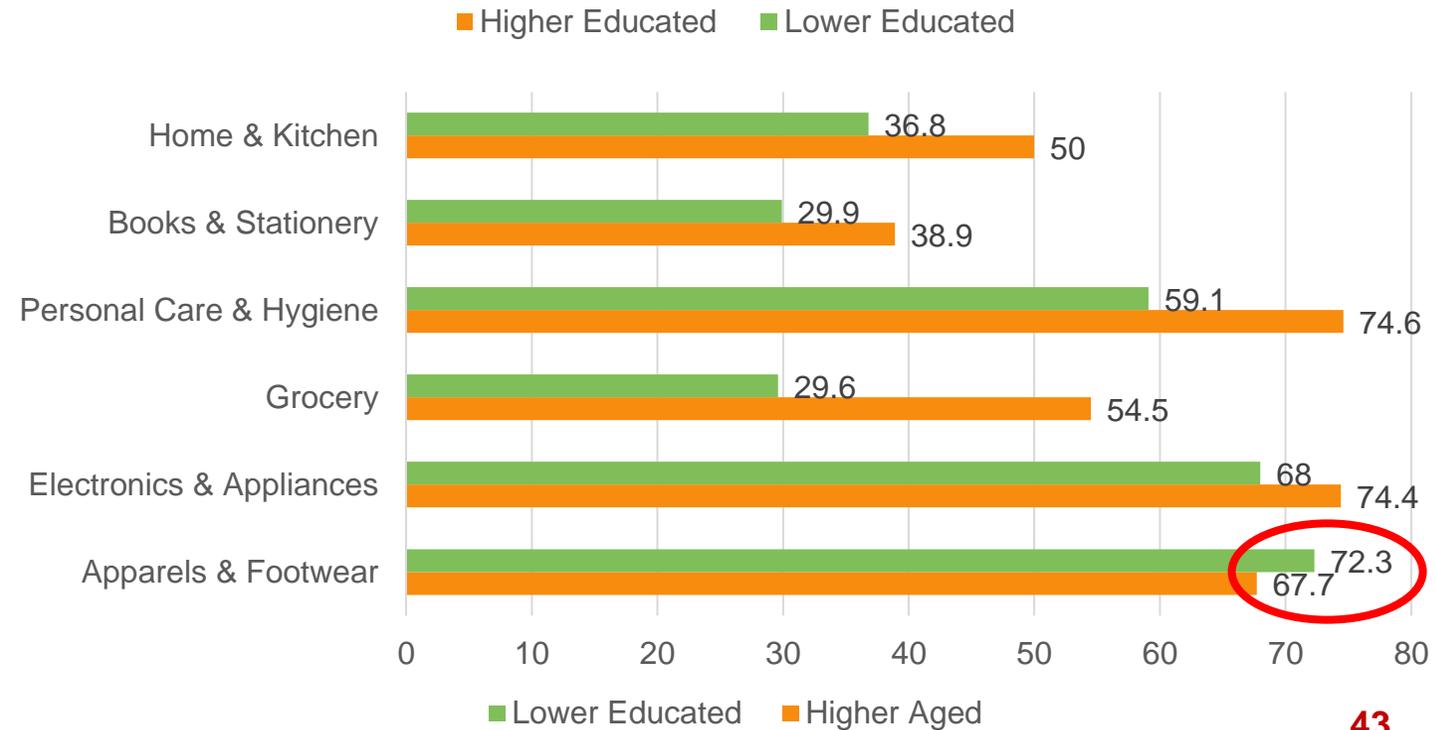
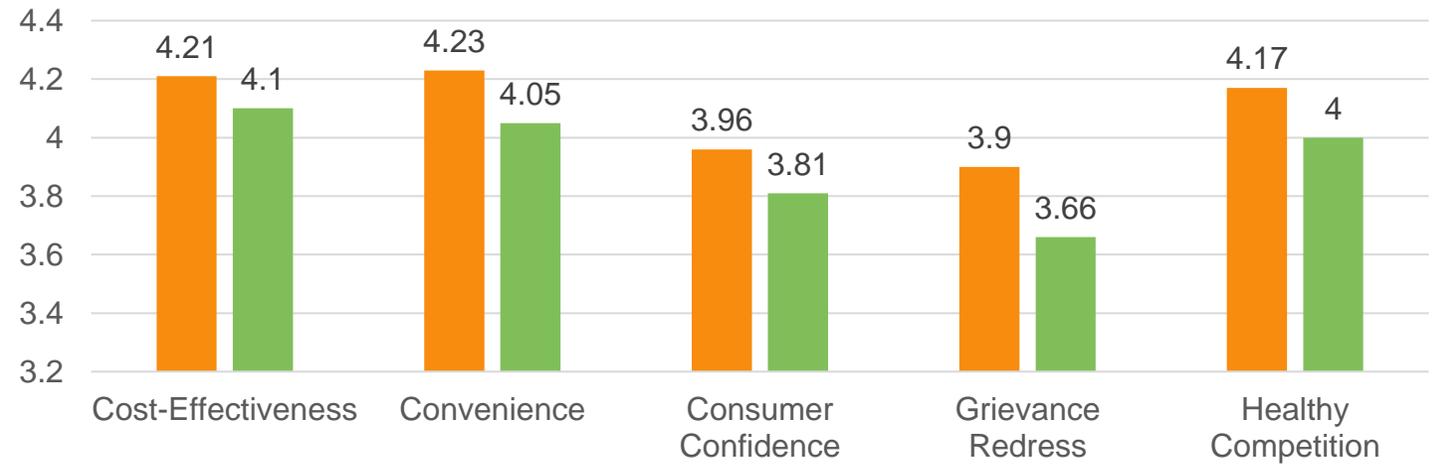
Higher educated respondents (beyond schooling) have given higher **scores** on all parameters of consumer welfare, thereby signifying greater satisfaction with e-commerce, than lower educated respondents (upto schooling). This has been given in the adjoining graph.

Correspondingly, they expected lower levels of **improvement** in each of the parameters, than others (**except Cost-Effectiveness** - 3.79 vs 3.70). Convenience (**3.67 vs 3.79**), Consumer Confidence (**3.89 vs 4.00**), Grievance Redress (**3.81 vs 3.94**) & Healthy Competition (**3.77 vs 3.84**).

Furthermore, more higher educated respondents found e-commerce to be **beneficial** than lower educated ones, with reference to time-saving (**86 vs 75**), cost-saving (**70 vs 50**) and safer for shopping during the pandemic (**89 vs 79**).

Also, higher educated respondents gave more importance to various parameters, as opposed to lower educated respondents. Cost-Effectiveness (**4.34 vs 3.93**), Convenience (**4.33 vs 4.03**), Consumer Confidence (**4.37 vs 4.15**), Grievance Redress (**4.20 vs 4.01**) & Healthy Competition (**4.31 vs 4.10**).

The above possibly explains the higher online **shopping preference** of higher educated respondents (**except Apparels & Footwear**). Product category details have been given in the adjoining graph in percentages.



Location as a Variable

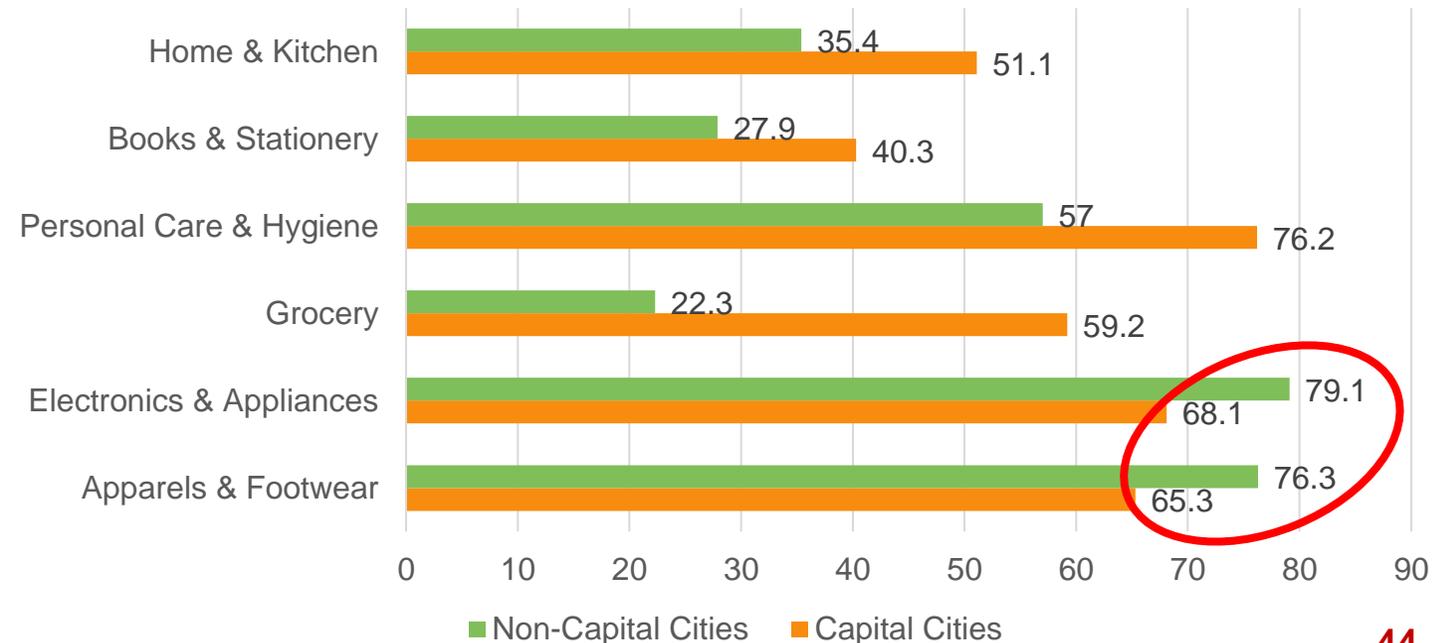
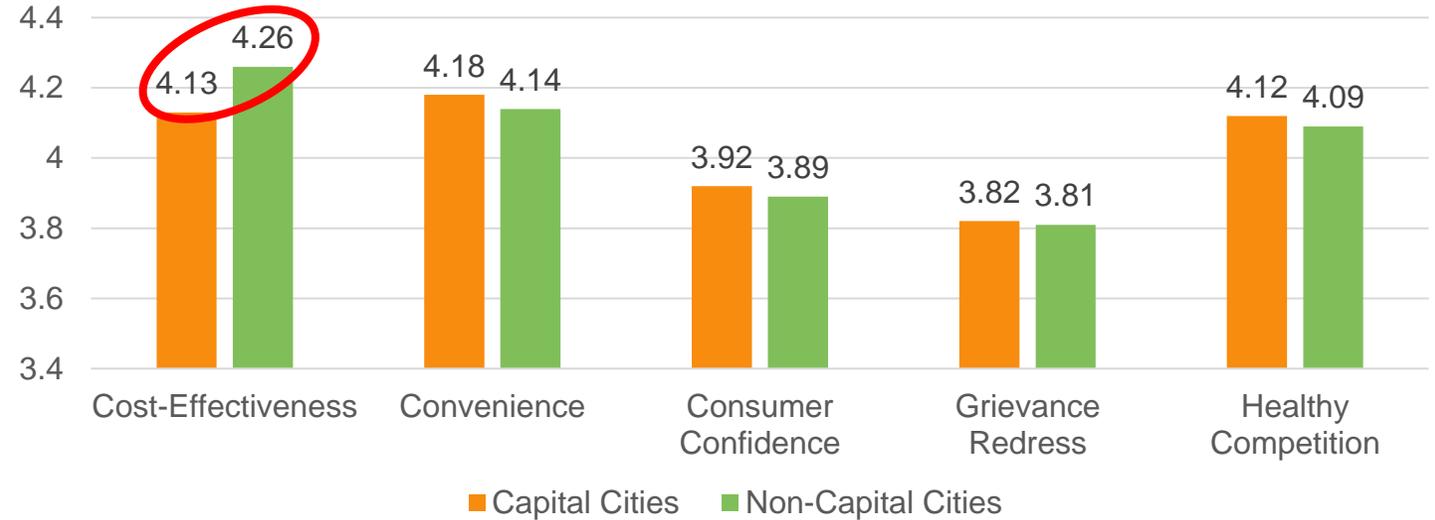
Respondents from state capitals (capital cities) have given higher **scores** on parameters of consumer welfare (**except Cost-Effectiveness**), thereby signifying greater satisfaction with e-commerce, than respondents from non-capital cities. This has been given in the adjoining graph.

Correspondingly, they expected lower levels of **improvement** in each of the parameters, than others. Cost-Effectiveness (**3.73 vs 3.80**), Convenience (**3.66 vs 3.86**), Consumer Confidence (**3.88 vs 4.01**), Grievance Redress (**3.80 vs 3.96**) and Healthy Competition (**3.79 vs 3.81**).

They also gave lesser importance to various parameters, as opposed to respondents from non-capital cities. Cost-Effectiveness (**4.18 vs 4.21**), Convenience (**4.19 vs 4.28**), Consumer Confidence (**4.28 vs 4.32**), Grievance Redress (**4.08 vs 4.23**) and Healthy Competition (**4.21 vs 4.29**).

Furthermore, more of such respondents those from non-capital cities found e-commerce to be **beneficial** with reference to time-saving (**85 vs 77**), cost-saving (**73 vs 45**) and safer for shopping during the pandemic (**87 vs 84**).

Consequently, respondents from capital cities had a greater **preference** for online shopping than other respondents, for most products. Product category details have been given in the adjoining graph in percentages.





The Way Forward

Recommendations for the Government

Given the findings from the survey, it becomes imperative to frame evidence-based regulations for governing e-commerce in India. Keeping the interests of consumers at the centre is also imperative in this regard. Furthermore, the government should take the following steps.

01

Revisit the proposed amendments to the Consumer Protection (E-commerce Rules), 2020. Refer CUTS recommendation on them [here](#).

02

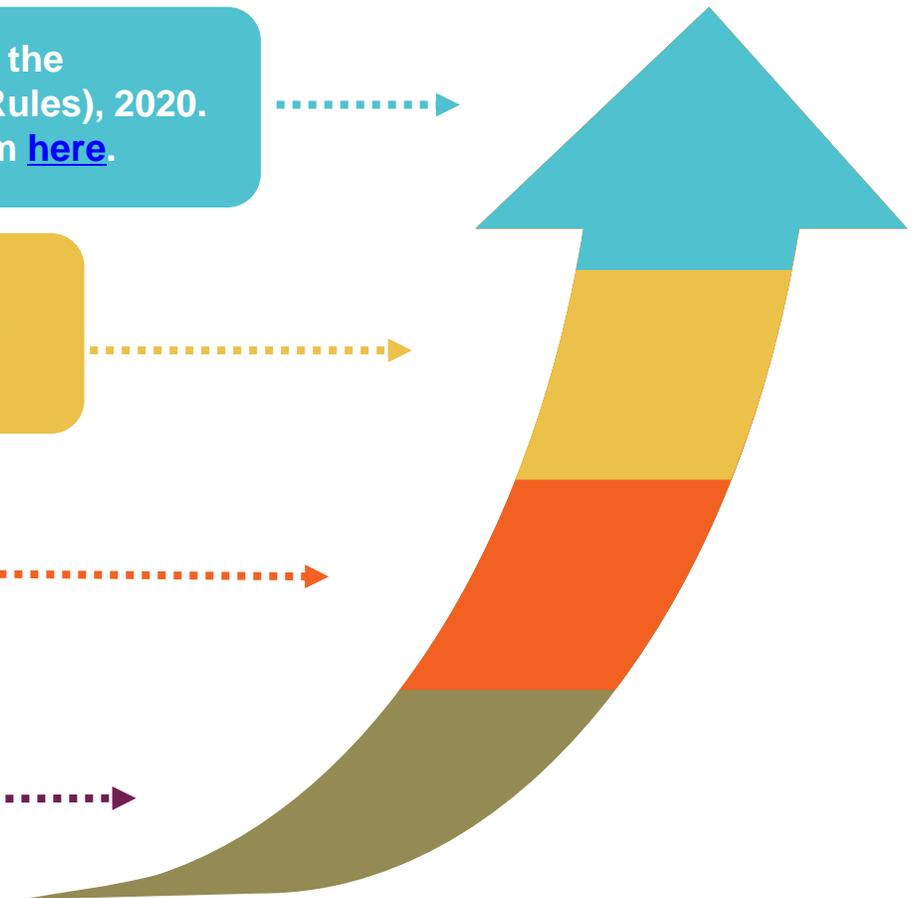
Frame the long pending National E-commerce Policy, after due stakeholder consultations and keeping consumer welfare as the focus, including findings of this study.

03

Enact the Personal Data Protection Bill, 2019 after incorporating suggestions received from stakeholder consultations. Refer CUTS recommendations on it [here](#).

04

Ensure fair competition in the e-commerce market by aggressively implementing the Competition Act, 2002. Avoid using consumer protection regime where competition law can be used. May consider ex ante P2B regulation.



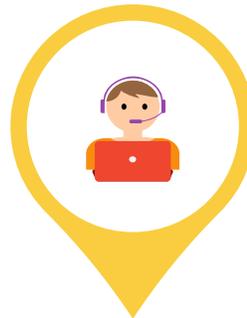
Recommendations for E-commerce Platforms



Consumer Confidence

- Adopt transparent data processing practices
- Adopt principles of purpose limitation and data limitation, among others prescribed under the PDPB
- Ensure adequate cyber-security
- Identify and weed out fly-by-night sellers on platform

- Accept liability in case of misconduct in online sales
- Avoid misleading advertisements of products sold online
- Avoid mis-selling of products online



Grievance Redressal

- Adopt Convenient Grievance Redressal Mechanisms
- Comply with the grievance redressal mechanism provided under the Intermediary Guidelines 2021
- Explore alternate grievance redressal avenues, such as *Grahak Sahayata Kendras*



Healthy Competition

- Avoid Anti-Competitive Practices
- Adopt the principle of platform neutrality
- Do not discriminate against domestic products

Recommendations for Online Sellers

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Thank you

Comments and suggestions are welcome.

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