Consumer awareness in the digital transformation age

Study period 2022-2025

Question 6/1

Consumer information, protection and rights

Interim deliverable 2024

Executive summary

This is the second interim (annual) deliverable for Question 6/1 of ITU-D Study Group 1 for the study period 2022-2025.

Advanced telecommunication/information and communication technology (ICT) products and services have increasingly permeated all aspects of our lives, including work, entertainment and learning. This has brought untold benefits and significantly improved consumers' lived experiences. In order to facilitate the continuous development of the digital economy and society, there is a need for robust mechanisms that support the development and deployment of underlying technologies. The Global Digital Regulatory Outlook 2023 reiterates the role of digital transformation as a means of facilitating universal access to new economic and social opportunities. As indicated in the ITU Facts and Figures 2023 report, there still exists a significant digital divide, with a third of the global population, or an estimated 2.6 billion people, being offline and, consequently, impeded from accessing these opportunities.

Therefore, it is crucial that consumers of telecommunication/ICT products and services, as one of the key actors in this ecosystem, participate effectively in the digital economy and society. In this regard, it is important that policy-makers develop and deploy appropriate digital transformation policies and strategies that empower and support consumers to exercise their rights and meet their needs. Rapidly evolving technologies are exacerbating existing information asymmetries in our digital worlds; hence, it is even more important to safeguard consumers and develop protection mechanisms that support consumers in making purchase-, subscription- and use-related decisions in the market and, in so doing, enable citizens and businesses to participate in, and fully harness the benefits of, the digital economy and society. It is thus inevitable that digital transformation requires a consumer-centric approach that enhances consumer trust and confidence.

As an initial step, it is important to raise awareness among consumers so that they have a better understanding of the terms and conditions that they are agreeing to and that they are well informed of their rights and responsibilities, as well as of their choices in terms of service options, available features and the benefits and opportunities that can be harnessed in the digital era.

The following paragraphs look at key considerations for policy-makers and the means through which consumers' level of awareness can be raised. This is carried out by firstly understanding the process through which consumers make decisions and the mechanisms to inform their decision-making process.

1. Decision-making and behavioural insights

1.1. Consumers lived experiences

Consumers in the digital economy, now more than ever, have a plethora of products and services that can be easily accessed at their convenience. Further, owing to increased competition, consumers are increasingly demanding high levels of customer experience. In addition, the digital economy has created a seamless connection between offline activities and online activities and changed consumers consumption patterns to meet their diverse needs[1]. It is also notable that the emergence of new technologies that impact the delivery of telecommunication/ICT products and services, such as artificial intelligence (AI), machine learning, augmented reality, virtual reality, cryptography, 5G, blockchain technology, cloud computing and the Internet of Things (IoT), has exposed consumers to new products, service offerings and platforms across various sectors of the economy. This has seen consumers increasingly preferring[2] online over offline channels.

On the flip side, consumers are now experiencing increased pressure to acquire digital skills to enable them to navigate the digital economy[3] and not be left behind. In addition, consumers in the digital economy face myriad concerns that can be viewed from various perspectives, including:

a) ***Accessibility:*** Accessibility of telecommunication/ICT products and services, including for vulnerable consumers, i.e. children, women, persons with disabilities and consumers in unserved and underserved areas[4], continues to be a priority at a global level. User accessibility is one of the most critical aspects of the digital transformation journey that endeavours to leave no one behind[5].

b) ***Affordability:*** This continues to be an important barrier for consumers' ability to access economic and social opportunities in the digital economy. This aspect also features prominently in strategies to bridge the digital divide[6].

c) ***PII and online safety concerns:*** Many consumers, having benefitted from access to more information and becoming more empowered, are more aware of the need to protect their PII, including from misuse[7], given that many aspects of their lives, their livelihood and interactions are often carried out online. This aspect is seen as critical to the digital transformation journey[8].

d) ***Comparability of products and services:*** The digital economy has provided consumers with access to numerous sources of information, and, at the same time, businesses are bombarding consumers with information. Consumers are increasingly facing challenges in decision-making owing to either an absence of relevant and easily understandable information or an influx of information that may overwhelm them[9].

e) ***Product/service reliability:*** Owing to the speed at which consumers and users of telecommunication/ICT technologies are connected and to the growing dependence of consumers on these services, it is expected that services shall always be available and reliable so as to maintain high levels of customer experience and high levels of quality of service (QoS)[3].

1.2. Key trends affecting consumer behaviour

The following are some of the notable key consumer trends affecting consumer behaviour:

i) ***Limitations in decision-making capability:*** Consumers' decision-making may be hampered by either a lack of appropriate information or an overload/influx of information.

ii) ***Increased concerns on transparency, ethics***[10] ***and misuse of PII***[11]***:*** Consumers are increasingly required to provide information to access products and services, which increases their concerns about how and where their PII is stored and used. The possibility of irresponsible and unethical use of AI and an increase in PII leaks around the world are also a source of concern to consumers. Further, transparency in product and service costs is an important consideration to empower consumers. In addition, consumers are exposed to situations where some online offers and services may be misrepresented and may be hard to verify unlike transactions that take place offline[12].

iii) ***Increased digital gaps (digital gender gap, digital skills gap, digital divide):*** The growth of the digital economy and society may lead to increased inequalities and result in some demographics not knowing the value of the digital economy and missing out on the opportunities that it may present.

iv) ***Biases in the design of telecommunication/ICT products and services:*** New telecommunication/ICT products and services leveraging new and emerging technologies may in some instances draw on information available on the Internet, which may consequently lead to development of products and services that are inherently biased/skewed towards demographics that are more represented in online content.[13]

v) ***Diminished consumer trust and confidence in online communications and transactions:*** An increase in negative actors and online perpetrators have exposed consumers to numerous risks and

1 https://www.itu.int/md/D22-SG01.RGQ-C-0231/
2 https://www.itu.int/md/D22-SG01.RGQ-C-0231/
3 https://www.itu.int/md/D22-SG01-C-0335/
4 https://www.itu.int/md/D22-SG01.RGQ-C-0171/
5 https://www.itu.int/dms_pub/itu-d/opb/pref/D-PREF-BB.REG_OUT01-2023-PDF-E.pdf
6 https://www.itu.int/dms_pub/itu-d/opb/pref/D-PREF-BB.REG_OUT01-2023-PDF-E.pdf
7 https://www.itu.int/md/D22-SG01.RGQ-C-0177/
8 https://digitalregulation.org/national-digital-transformation-strategy-mapping-the-digital-journey/
9 https://www.itu.int/md/D22-SG01-C-0335/
10 https://www.itu.int/md/D22-SG01-C-0232/
11 https://www.itu.int/md/D22-SG01.RGQ-C-0244/
12 https://www.itu.int/md/D22-SG01.RGQ-C-0147/
13 https://www.itu.int/md/D22-SG01.RGQ-C-0150/

vulnerabilities. Further, these actors are increasingly finding new ways to contact their victims and are, now more than ever, leveraging new and emerging technologies, such as AI, to scam victims, in particular users of telecommunication/ICT services. The increased reliance on technologies has also equally exposed consumers to challenges such as deep fakes[14] and online scams[15]. It is thus becoming extremely difficult for consumers to know what is authentic, safe and true, and what is not.

vi) ***Changes in consumption patterns (digital first, mobile first):*** Increasingly, there are more online engagements/communications/transactions that lead to real life/offline engagement/communications/transactions. China, for example, has leveraged emerging technologies to enhance and promote convenient cultural tourism[16] by stimulating consumer interest through the use of social media, short videos and online one-stop integrated cultural tourism platforms.

vii) ***Proliferation of innovative solutions, products and services:*** Technological advances are leveraging lived experiences and various aspects of society and feeding outcomes into the digital world. For example, China has released the intellectual property value of cultural relics by deconstructing and recreating cultural resources as new, innovative products, such as digital collections, interactive games and animations[20].

viii) ***Increased convenience and faster access to products and services:*** Online communications and transactions can now be carried out anywhere at any time by anyone. This has been enhanced by technological convergence, which has made it even easier for new players to enter the market without significant investment in infrastructure and devices. This has enabled consumers, for example, to enjoy first-hand experience of products and services prior to purchase/use through use of immersive technologies, such as virtual reality, and also to easily access online content through streamed services.

ix) ***Increased customer experience:*** Businesses and telecommunication/ICT service providers are leveraging customer experience strategies, tools and techniques to map out customer journeys that meet or exceed expectations. They have designed systems and solutions, such as omnichannel, a customer-centric solution that seeks to provide a seamless customer experience for its customers across all channels and that also leverages new and emerging technologies to better enhance customer interactions and eliminate customers pain points. Vivo's implementation of this system has enabled the platform to manage its 22 million users, with 8 out of 10 other interactions with consumers being online. Further, this solution has enabled Vivo to study customer behaviour and develop a customer-centric culture, leverage active listening to customer feedback, establish customer satisfaction levels and redesign customers' journeys[7].

1.3. Empowering consumers' decision-making through behavioural insights

Classical economic theory assumes that consumers are entirely rational in their decision-making and consider all the available information and data prior to making a decision. In practice, however, consumers deviate from this and make irrational[7] decisions based on various cognitive biases and are susceptible to the manner in which information is presented to them and other factors, including their current socio-economic predispositions and their ability to access and process data and information.

It is therefore imperative that policy-makers prioritize consumer protection and empowerment frameworks and mechanisms. They should have an in-depth understanding of consumer behaviour to develop appropriate interventions that protect consumers from exploitation and empower them to overcome their cognitive biases by demanding transparency and simplicity in the manner in which information is presented to them[7]. Kenya has recognised the need for behavioural insights that would enable the development of appropriate regulatory interventions that enhance meaningful online experiences for its consumers. In the absence of such behavioural insights, the digital economy and society will be awash with deceptive market practices that would erode gains made in the digital transformation journey. Behavioural models can be especially helpful in defining what would be beneficial to consumers and eliminate/minimize negative consumer experiences[7].

1.4. Understanding consumer behaviour

Irrational decision-making, as mentioned above, may be a result of various factors affecting consumers, including cognitive biases. For instance, a service provider may present pricing information in a manner that predisposed consumers to salience bias.

The United Kingdom's communications regulator, the Office of Communications (Ofcom), in its assessment of challenges related to mid-contract price rises, noted that consumers subscribed mobile services that included annual price rises within the minimum contract periods, incorporating the Consumer Price Index (CPI) in their computation. In this situation, consumers may not be aware that these terms exist in the contract, were surprised when the prices rose mid-contract (bill shock), did not know what the CPI or inflation were, or would not calculate the future prices/impact of price increases over the life of the contract. Ofcom used behavioural-insight methods to gauge how consumers understood these price rises and applied this information in adapting its regulations to better protect consumers' interests in mobile contract prices. There are some instances where consumers are predisposed to framing bias and would make an irrational decision based on how choices are presented. In other instances, a consumer may be fixated and wholly trusts that advertisement/information provided by the service providers and overlook other factors in the service offering.

It is important to note that service providers have leveraged behavioural science, its models and theories to change consumer behaviour, incentivize certain behaviour

[14] https://www.itu.int/md/D22-SG01.RGQ-C-0150/
[15] https://www.itu.int/md/D22-SG01-C-0212/
[16] https://www.itu.int/md/D22-SG01.RGQ-C-0231/

and change consumption patterns to maximize profits. It is therefore important that a balanced approach is adopted in the use of behavioural sciences by sector players, regulators and policy-makers alike.

To obtain meaningful and useful behavioural insights, there is a need to acknowledge the various players in the market and that the behaviour of one player affects others. Thus, it is necessary to analyse the behaviour of consumers, service providers and regulators in the market[7]. Brazil has conducted extensive studies on the behaviour of market players, leveraging various behavioural models to promote good business behaviour in the market.

1.5. How behavioural insights can improve consumer choice

Behavioural science seeks to understand the factors and motivations that consumers consider when making their choices. This is further augmented with information on the root causes of consumer complaints. Consumer decision-making is characterized by the influence of emotions, leveraging values, reliance on previous decisions and limited ability to process information (owing to lack of information, too much information or obscure information).

It is thus crucial that an environment that enhances consumer autonomy in decision-making is enabled or fostered by policy-makers and regulators, such as through possible incentives for service providers, including use of nudge theory, to exhibit good business practices that benefit consumers. Some of the good business practices include: providing information on how to switch service providers to avoid status quo bias, presenting information in a simplified manner to make it easier for consumers to make decisions and avoid bias, ensuring that there is complete transparency on the part of the service provider to avoid anchor biases, and ensuring that the choices presented to consumers are clear and unambiguous, avoiding framing biases[7].

Service providers can in turn leverage behavioural insights to provide custom, personalized services to their customers, reduce turnaround time for product/service delivery, leverage emerging technology and predictive analytics to enhance customer journeys, offer service options to reduce time taken to make decisions, ensure that customer journeys are made simpler, clearer and hassle free, and adopt customer-centric and digital first principles in service delivery, and also other mechanisms which shall be elaborated upon in the following section.

1.6. Behavioural insights for public policy and consumer protection

Promoting consumer trust and confidence in the digital economy and society is an important enabler of digital transformation. It is thus paramount that consumers not be exploited, intentionally exposed to negative experiences and inhibited by biases. Thus, there is a need to therefore develop policies and interventions that safeguard consumers' rights and enable them to participate actively in the digital economy and society without being exploited. It is worth noting that application of behavioural science would be instrumental in understanding consumers' vulnerabilities and protecting them by imparting information and creating greater awareness of sources of potential harm. In this regard, there is a need to promote responsible practices and incorporate ethical principles in the use of behavioural science at all levels, i.e. policy-making, regulatory and business levels, and also for consumers as producers of content.

2. Mechanisms to promote informed consumer decision-making

In the telecommunication/ICT sector, consumers can be significantly affected by asymmetric information. Consumers who are weaker in terms of their level of information and awareness may not be able to properly analyse the benefit they will derive from services and the costs they will bear for those services. It has been a challenge for consumers to keep up with the rapid changes and transformations in the telecommunication/ICT sector in recent years, exacerbated for some consumers by the asymmetric information problem, and to make informed decisions.

In order to protect consumers, who are at a disadvantage in relation to service providers, policy-makers should put in place mechanisms to increase consumers' education, level of information and awareness. This will reduce information asymmetry, enable consumers to make more rational decisions, engender trust and improve the uptake of digital services and aid proper market functioning.

2.1. Public and transparent information for consumers

With the proliferation of Internet access, consumer information through websites is being increasingly and effectively used in the telecommunication/ICT sector in the form of general information, reports, research, guides and other tools on various consumer-related issues.

In the United Kingdom[17], Ofcom regularly conducts a consumer survey on switching trends within the national telecommunication market. The area of research has two complementary surveys: the core switching tracker (ST) and the switching experience tracker (SET). The ST measures trends in the amount of switching activity occurring within the communication service market (i.e. landline telephony, mobile phone services, pay TV and fixed broadband), while the SET surveys those who have switched or who have considered switching service providers to further understand the consumer journey and identify potential barriers to switching that might impede consumer choice. The research has enabled Ofcom to develop a deeper understanding of the telecommunication market and to provide guidance for consumers in a way that encourages and enables their successful engagement with the market. Publication of most survey data in an open access format also allows stakeholders such as consumer groups to download,

[17] https://www.itu.int/md/D22-SG01-C-0237/

analyse and report on Ofcom's data for public advocacy campaigns.

The Federal Telecommunications Institute of Mexico[18] has published an IoT device catalogue tool on its website to inform telecommunication service consumers of the main characteristics of IoT devices and of the privacy policies defined by manufacturers. The tool covers more than 1 400 IoT devices, containing information such as type and size of screen, operating system, compatibility and functions for each of the devices. The tool empowers users through transparent information on privacy policies and the characteristics of terminal devices that comply with technical regulations. This facilitates informed decision-making in the use of IoT equipment.

2.2. Comparison tools

In the telecommunication/ICT sector, consumers can obtain service and product information both inadvertently through traditional channels, such as advertisements, newspapers and TV, and by specifically searching relevant service provider websites on the Internet, and incur search costs. The complexity and abundance of tariff plans or the high number of service provider websites increases the cost of information gathering, and, as a result, consumers who do not want to bear further costs may make rushed, sub-optimal choices. Sourcing information away from many service providers' websites, on the other hand, can create confusion and negative experiences. Consumers can determine their consumption preferences by searching from sources that they consider more credible and contain more concrete, objective information and better defined product features and service terms and conditions. As a result, independent comparison tools are becoming increasingly important for consumers to make more informed choices among like products.

The European Electronic Communication Code (EECC)[19] has a new provision that establishes that consumers must have access to at least one independent comparison tool which enables them to compare and evaluate different tariff options on the market. The main requirements established by EECC for comparison tools are operational independence from service providers, clear and objective comparison criteria, being open to any service providers and covering a significant part of the market, and comparability of prices, tariffs and QoS parameters across different offers[20].

An overview of the regulatory framework and implementation of comparison tools from some countries in Europe[21],[22] (Belgium, Romania and Türkiye) demonstrates that, in general, fixed phone, mobile phone, fixed broadband, TV services and, where appropriate, bundled services can be compared with these tools. The tools use several filtering parameters including, but not limited to, service type, average monthly cost, commitment/contract period, quantity of texts/calls/data and speed for fixed broadband. The benefits of such comparison tools can be listed as follows[23]:

- They improve informed decision-making by providing transparent information.
- They promote competition in the market by encouraging providers to improve services and offering competitive prices.
- They boost consumer confidence by empowering users with the knowledge to meet their needs.
- When operated by regulatory bodies or accredited third parties, independent of service providers, they ensure that consumers receive reliable, impartial and up-to-date information.
- They reduce search costs for consumers and reduce tariff and service confusion.

2.3. Billing transparency including third-party payments

A high proportion of consumer complaints in the telecommunication/ICT sector usually relates to billing and payments[24]. EECC emphasizes that consumers are often not aware of the cost of their consumption behaviour or have difficulties in estimating their time or data consumption when using electronic communication services. In addition, tariffs may include third-party services and may also include bundling of triple and quadruple communication services, which increases tariff complexity[25]. Thus, consumer protection mechanisms should be employed in order to increase transparency and consumer awareness in billing related issues.

According to notification mechanisms introduced in regulations of the Information and Communication Technology Authority (BTK) in Türkiye[26];

- All operators are obliged to notify subscribers when the usage of each service in their tariff plans (calls, texts and data) reaches the volume limits set by the regulation, i.e. 80 per cent and 100 per cent.
- Operators having more than 200 000 subscribers are also obliged to notify subscribers when the total amount of charges included in monthly bills (including third-party payments) reaches 100 Turkish lira or an alternative financial limit selected by subscribers from limits offered by operators.
- Notifications based on the volume and financial limits specified in the BTK regulation are sent to all subscribers unless otherwise requested.
- BTK also issued a regulation on value-added service principles, establishing detailed and separate procedures for purchases of value-added services via electronic channels, such as Internet, SMS and phone calls[27].

These regulations have been introduced to increase billing transparency, allow consumers to better monitor use of services/expenditures, provide transparency at all stages of subscriptions/purchases related to third-party

[18] https://www.itu.int/md/D22-SG01.RGQ-C-0097/
[19] European Union (EU). EUR-Lex. Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code
[20] https://www.itu.int/md/D22-SG01-C-0335/
[21] https://www.itu.int/md/D22-SG01-C-0136/
[22] https://www.itu.int/md/D22-SG01-C-0335/
[23] https://www.itu.int/md/D22-SG01-C-0335/
[24] ITU. Digital Regulation Handbook. Geneva, 2020.
[25] https://www.itu.int/md/D22-SG01-C-0335/
[26] https://www.itu.int/md/D22-SG01-C-0236/
[27] https://www.itu.int/md/D22-SG01.RGQ-C-0059/

payments, and ensure that consumers are informed of service terms and conditions, including prices.

2.4. Tools for quality of service/ experience

One challenge in terms of transparency in the telecommunication/ICT sector is observed in cases related to QoS. Consumers may not be sufficiently aware of QoS parameters such as coverage, speed, streaming and latency[28]. In addition, consumers may be aggrieved if there is a recurring significant deviation between the actual service performance in terms of speed or other QoS parameters and the advertised or promised QoS levels. Moreover, in the event of any withdrawal from the service, consumers may face early termination fees in committed subscriptions and their grievances may increase even more.

Among the mechanisms[29] that can be implemented by regulators for QoS are information portals, tools or applications for testing of fixed and mobile Internet service, comparison websites for operators' retail offerings and mapping tools. Crowdsourcing and complaint or reporting portals can also be used to gather data and identify recurring faults and ultimately better target actions and enhance efficiency.

In Brazil[30], in response to regulatory and implementation challenges in the area of QoS, three innovations have been introduced in the regulatory approach, as described below:

- Quality of service indicators have been simplified and unified instead of using multiple indicators for fixed, mobile, broadband and TV services in different regulations.
- Taking into account the difficulties of measurements in states based on geographical codes, the measurement area has been reduced and indicators can now be measured for each of Brazil's 5 570 municipalities, as reflected on the map of the National Telecommunications Agency (ANATEL).
- To provide consumers with full transparency on QoS indicators in each one of these municipalities, instead of excessive technical information, quality seals have been introduced to make QoS easier for consumers to understand, i.e. A, B, C, D quality seals indicate good QoS, and E and F indicate poor QoS.

Although the new system requires ANATEL to deal with vast quantities of data and processing, it will benefit the telecommunication market in several ways, for example:

- It will simplify consumer choice of operator by comparing each operator's QoS seals in their cities and enable consumers to make the best decision for themselves.
- It will offer a positive way for operators to compete with each other, as operators will always seek to obtain the highest A quality seal and then market their services as having obtained the highest possible seal of approval from ANATEL.
- Operators will be under pressure to reduce the number of municipalities recording E and F quality seals.

In Egypt[31], the My NTRA interactive application, introduced by the National Telecommunication Regulatory Authority in 2021, provides an operator quality mapping service which informs consumers on the quality of voice and data services within an area of their choosing on an interactive map. In addition, it allows for the ranking of best operators according to quality of voice and data services in areas of the consumer's choosing. The My NTRA application also includes an Internet speed test feature, allowing users to examine and measure the speed of Internet services provided on mobile devices.

In China[32], consumers actively provide companies with feedback for improvement through participation in QoS evaluations. They can complain to the enterprises or regulators when their rights to informed decision-making are impaired. Since China's regulator and telecommunication operators employ user satisfaction index, wherein the number and proportion of complaints serve as core indicators of QoS, consumers' actions generally lead to improvements in situations where their rights are affected.

In this context, providing consumers with user-friendly QoS metrics, consumer feedback mechanisms and tools such as individual speed tests and network coverage maps will allow them to compare the QoS of different providers, increase their awareness of service quality and facilitate informed choices. Additionally, granting consumers various means of recourse, such as the right to terminate the service without withdrawal fee in the event of a significant discrepancy between advertised internet speeds and actual speeds received by the consumer, will contribute to alleviating consumer complaints and grievances concerning QoS.

2.5. Strengthening the framework for security of services offered to consumers

Without proper legislation or sufficiently robust legal and regulatory frameworks for the protection of consumers online, consumers are vulnerable to potential dangers[33]. Emerging technologies such as IoT and AI create new concerns for consumers regarding telecommunication/ICT security[34]. Furthermore, if consumers are not able to fully understand terms and conditions, lack information on their rights and are not satisfied with their telecommunication/ ICT services, trust placed in service providers dwindles over time, potentially leading to a drop in service uptake[35]. Therefore, in promoting the informed, responsible and secure use of digital services, the aim is to create conditions for the increase of consumer confidence in the digital environment[36]. The Ugandan case study[37] on curbing mobile money fraud and promoting consumer

28 https://www.itu.int/md/D22-SG01-C-0335/
29 https://www.itu.int/md/D22-SG01-C-0136/
30 https://www.itu.int/md/D22-SG01-C-0335/
31 https://www.itu.int/md/D22-SG01.RGQ-C-0190/
32 https://www.itu.int/md/D22-SG01-C-0222/
33 https://www.itu.int/md/D22-SG01.RGQ-C-0004/
34 https://www.itu.int/md/D22-SG01.RGQ-C-0147/
35 https://www.itu.int/md/D22-SG01.RGQ-C-0028/
36 https://www.itu.int/md/D22-SG01.RGQ-C-0183/
37 https://www.itu.int/md/D22-SG01.RGQ-C-0046/

safety for mobile money consumers demonstrates the importance of the security of services offered to consumers. The Uganda Communications Commission, which is the country's communication sector regulator, has collaborated with key stakeholders, including mobile network companies, some media organizations and the Central Bank of Uganda (BOU), to address mobile money vulnerabilities to fraud, which escalated rapidly in the country with numerous consumers falling victims to scams. Deployment of measures such as SIM card registration and SIM card swap obligations, consumer awareness-raising campaigns and regular cybersecurity empowerment programmes in collaboration with relevant stakeholders have increased consumer awareness and self-efficacy, thus leading to a reduction in incidence of mobile money scams and increased consumer trust and confidence in digital financial services and, thereby, also to an increase in mobile money subscriber numbers.

Therefore, it is evident that improving legal, regulatory and technical aspects of services to secure online transactions and informing and educating consumers on the risks of online fraud and providing them with timely and helpful advice are important to building trust and confidence in engaging with digital services.

2.6. Addressing traffic management and zero-rating issues

Traffic management and zero-rating practices, which can be implemented for service quality, network optimization, security, fair use policy, commercial and other reasons, can have negative impacts on consumers when those practices are implemented in a non-transparent and discriminatory manner. In some instances, consumers may experience challenges in understanding terms of service offerings that relate to traffic management or zero rating; however, zero-rating practices can be beneficial to many public and private organizations and consumers[38]. For example, public sector actors could use zero-rating services for many purposes, such as to reduce cost, gain time and increase engagement in education, health and digital government services.

Colombia[39] has had a regulation on net neutrality since 2011. It stipulates that, with respect to the right to free access to the Internet, service providers cannot generate any type of blocking, discrimination or preference vis-à-vis any particular company, application or specific content to the detriment of one company or another. The only content that might be restricted is content proscribed or regulated by law, such as violence or betting, which is considered carefully by service providers. Service providers may use techniques concerned to alleviate or avoid traffic congestion. The regulation, however, obliges operators to provide users with complete and transparent information on tariff plan conditions, including on any additional, cost-free applications. During the pandemic, the national regulator, considering people's social well-being, developed measures to provide zero-rating offers for health and education institutions so that consumers could access basic information for their daily routine at no cost.

[38] https://www.itu.int/md/D22-SG01-C-0335/
[39] https://www.itu.int/md/D22-SG01-C-0335/

3. Concluding remarks and guidelines on increasing consumer awareness

3.1. Key Takeaways

The digital age offers consumers remarkably improved access to a variety of high-quality services and online experiences that can positively transform their lives; however, both regulators and consumers struggle to keep pace with rapidly evolving digital technologies and with ensuring that consumers continue to be protected and empowered to make informed choices. The large variety and volume of consumer data revealed online can be used to exploit consumers. Consumer online safety is essential to maintaining the pace of digital transformation by preserving consumer trust and confidence in telecommunication/ICT services. Consumer protection includes protecting consumers from behavioural manipulation by ensuring that they understand their proclivities, vulnerabilities and decision-making processes. Understanding this aspect empowers regulators in their efforts to strengthen consumer safety through transparency and other protective mechanisms that enable better decision-making by consumers and generate more confidence in engaging with digital services. In view of the above, the following two sets of guidelines are proposed.

3.2 Guidelines on leveraging behavioural insights

These guidelines serve as a framework to fostering ethical, transparent and consumer-centric practices while driving positive outcomes in the telecommunication/ICT sector.

1. **Acknowledge non-linear consumer decision-making**: Recognize that consumer choices in the telecommunication/ICT market can be influenced by cognitive biases and limited awareness and are susceptible to the way that information is presented. Factors such as salience bias—where consumers focus on the most noticeable information—can impact decision-making.
2. **Importance of consumer behaviour insights**: These insights help regulators develop targeted, consumer-centric interventions by helping regulators to understand the actual behaviours and concerns and gaps in consumers' experiences.
3. **Designing policies that leverage behavioural science**: Policies should enhance consumers' ability to make informed purchase, subscription and consumption decisions in the telecommunication/ICT market. This means it is necessary to understand how consumers make decisions and how they can be best informed in order to make choices that meet their needs.
4. **Understanding market players' behaviour**: Behavioural science models help regulators to analyse the behaviour of consumers, suppliers and the regulator itself. Such analysis allows for the creation of incentives that promote positive behaviour in the market.

5. **Customer experience techniques**: By embedding customer experience strategies, companies can better address the challenges that consumers face. Techniques such as reviewing customer journey maps, humanizing services, simplifying processes and actively listening to consumers can foster a customer-centric culture. Tools like the Net Promoter Score (NPS) and customer engagement metrics help track and improve customer experience.
6. **Ethical and responsible use of behavioural science**: When applying behavioural insights, there is a need to navigate considerations, predictability issues and best practices in an ethical and responsible manner. Tailoring tools and experimental designs appropriately is crucial to ensuring that interventions are both effective and ethical.
7. **Consumer-centric behavioural techniques**: Approaches that do not prioritize consumer well-being may hinder consumers' ability to access and use telecommunication/ICT products and services. Consumer-centricity should remain at the heart of all behavioural interventions.
8. **Testing consumer behaviour interventions**: Pre-testing consumer behaviour interventions can help to ensure that regulators and service providers safeguard consumer needs, rights and interests and help to prevent undesirable market outcomes or distortions.

3.3 Guidelines on promoting consumers' informed decision-making

Mechanisms to promote consumers' informed decision-making include the following:

1. **Public and transparent information for consumers:** The use of websites by public authorities and industry should be increased for the publication of general information, reports, research, guides and other tools on various consumer-related issues to encourage and empower consumers to engage successfully with the market.
2. **Comparison tools:** Independent comparison tools which enable consumers to compare and evaluate different tariff options in the market should be encouraged. Best practices in such comparison tools include operational independence from service providers, clear and objective comparison criteria, being open to any service providers and covering a significant part of the market, including vulnerable groups, and comparability of prices, tariffs and QoS parameters across different offers, as appropriate.
3. **Billing transparency, including third-party payments:** There is a need to increase billing transparency, allowing consumers to better monitor their use of services/expenditures, providing transparency at all stages of subscriptions/purchases in relation to third-party payments and ensuring that consumers are informed of service terms and conditions, including prices.
4. **Tools relating to quality of service/experience:** There is a need to provide consumers with user-friendly QoS metrics and different tools such as information portals, applications for testing of fixed and mobile Internet service, comparison websites for operators' retail offerings and mapping tools etc. Crowdsourcing and complaint or reporting portals will be useful in responding to the increasing consumer demand for information on QoS indicators and comparison of operators' QoS in order to facilitate informed decision-making.
5. **Strengthening frameworks for security of telecommunication/ICT services offered to consumers:** Strengthening legal, regulatory and technical framework to secure online transactions and informing and educating consumers on the risks of online fraud and providing them with advice is important to building trust and confidence in consumer engagement with telecommunication/ICT services.
6. **Addressing traffic management and zero-rating issues:** Providing services with zero-rated options for education, health and e-government services could be beneficial in improving the social well-being of consumers; however, consumers should be provided with transparent and accurate information on services, such as the amount of data, the inclusion of any free services/applications, and the conditions under which these services/applications can be accessed/restricted, in a way that will enable consumers to better understand and use the services.

This paper is mainly based on the discussions held at the joint workshop organized under Question 6/1 and Question 3/2, which addressed increasing consumer awareness: mechanisms to promote informed consumer decision-making and was held in Brasilia, Brazil, from 18 to 20 June 2024. Contributions received to date on the topic have also been used in developing this interim deliverable.

For further information, consult:

Regional workshop on the topic of "Increasing Consumer Awareness: Mechanisms to promote informed Consumer Decision Making ", https://www.itu.int/en/ITU-D/Regional-Presence/Americas/Pages/EVENTS/2024/cons-awa-2024.aspx

Q6/1 Final Report for the 2018-2021 study period: "Consumer information, protection and rights: Laws, regulation, economic bases, consumer networks": https://www.itu.int/en/myitu/Publications/2021/07/22/12/33/Consumer-information

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Question 6/1 website www.itu.int/en/ITU-D/Study-Groups/2022-2025/Pages/reference/SG1/questions/Question-6-1.aspx

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