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**SATRC REPORT ON**

 **THE ENHANCING CONSUMER PROTECTION IN DIGITAL ECONOMY**

**Prepared by**

**SATRC Working Group on Policy, Regulation and Services**

Adopted by

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# 1. Background

The digital economy has clearly provided new opportunities as well as challenges for consumers. Now the consumers around the world are experiencing rapid and transformative change since the marketplaces have increasingly became digital and globalized. There are new ways of communicating, sharing, banking, shopping, finding information and socializing which have create greater choice, opportunities, convenience and lower prices to the consumers. Such market trend and service delivery transformation have enormously transformed people’s lives as consumers and to ensure such growth and opportunities continues, the digital development should not be available to more people but be trusted enough to be integrated in consumers’ everyday lives.

However with the wider availability of new Information and Communication Technologies (ICTs) for providing greater choice of devices, online services and applications, consumers are now confronting with new issue of trust and if these issue is not addressed then the further growth and integration of technology may be hampered and threatened. Building trust means involving people much more. The traditional role of consumers as the demand side in the economy has been expanded in the digital economy. The role of the consumers been transformed, shaped and driven the internet, not just through their purchasing decisions but also by sharing information, creating content, commenting, ranking and exchanging ideas. Besides commenting and reviewing, consumers now also use digital platforms to provide services as part of peer to peer networks and platforms.

Despite these huge opportunities to shape and comment on the digital economy, the rapid pace of change in new technology and the concentration of services have relatively disempowered consumers; they are unclear about what is happening behind the scenes and unsure of their choices. Therefore, it is important to understand what worries consumers in the digital economy and their expectations will definitely help in findings ways to build trust and make the next stage of digital development work better for everyone. It is very important to create a digital world that consumers can trust - where access, opportunity, participation and innovation in digital technology flourish for everyone.

As ICT regulators having recognized the rights of all stakeholders must be balanced to ensure that both consumers and the business benefits from this digital opportunity, it important to identify and endorsed the regulatory best practices guidelines to protect consumer interests and promoting digital economy by ensuring level-playing field for traditional and new market players through either light touch regulatory or co-regulatory or self-regulatory approaches. Such pro-active regulatory measures and initiatives of the regulator will facilitate the empowerment of the consumers to protect their rights in the open, transparent and inclusive digital world including building their trust and confidence.

# 2. Objective and the purpose of the study

Since digital technologies have integrated in the economy and are making a significant impact by introducing new products, services, distribution models and providers, there is a need for an effective consumer protection including education and inclusive policies to enable the consumers to adapt to this changing environment.

In order to both better realise the benefits of digital economy and to mitigate the risks, policy makers and the regulators in collaboration with relevant private and civil stakeholders, should take concrete actions which include establishing and complying with appropriate and flexible consumer and data protection frameworks, complemented by efforts to strengthen the digital literacy of consumers.

To strengthen and enhance the consumer protection in digital economy, the Council during its 18th South Asian Telecommunications Regulators’ Council (SATRC) Meeting held in Dhaka in 2016 recommended the Working Group on Policy, Regulation and Service to conduct a study:

a) On the best possible solution based on best practices for educating consumer and putting in places regulatory measures on:

• Privacy / Security

• Fighting illegal and harmful content

• Copyright

• Online payment / Online delivery

• Consumer right and trust and redressal

b) On the best regulatory practices for maximizing the use of big data for the socio economic benefit of the countries.

# 3. Methodology used for the study

During the first meeting of the Working Group on Policy, Regulation and Services held in Dhaka, Bangladesh from 18 to 19 April, 2017, it was agreed that the lead expert will carry out the study based on:

a) Questionnaire: The lead expert had developed questionnaires and was circulated to all the nominated experts from the member countries. The responses of this questionnaire have been used to review and analyse the current practices or regulatory framework on the consumer protection. Such information provides the in-depth information and understanding on the current consumer protection framework in respective member countries.

b) Desk research: In order to supplement the questionnaire, the lead expert used desk research as secondary research to review and to understand best practices on consumer protection. Numerous reports on best practices by the international organization such as International Telecommunication Union (ITU), GSM Association (GSMA), European Union, OECD etc have been reviewed to get the insight on consumer protection on regional as well as global prospective.

c) Consultation and peer review by experts: The issues and concerns associated with the subject have been discussed and deliberated thoroughly during the Meetings of the experts as well as workshop conducted by Asia Pacific Telecommunity (APT) for the Working Group.

Besides consultations, the draft report has been circulated to the members of the working group for their review and feed-back. Based on the feed-backs /comments, the report has been finalized for submission to the Council during its 19th Meeting to be held in Islamabad, Pakistan.

# 4. Current status of Consumer Protection and Data Protection in South Asia

In general in South Asian, with the gradual transformation of its market from a predominately sellers market to a buyers’ market, the consumers have become the central point for all the business activities including ICT sector. With the advancement of technology and changing expectations of Consumers, the businesses are adopting various strategies to earn their profits at the cost of the customer in order to meet the increasing competition.

In general despite having in place the best Consumer Laws and stringent regulatory measures, the lack of awareness among the Consumers on their rights and other protection measures can lead to the exploitation of the consumers through numerous unfair and restrictive trade practices by the manufacturers and suppliers.

In order to understand the current status of consumer protection in the SATRC region, the questionnaires were circulated to the member countries. Based on the responses to the questionnaire, the following results on the readiness as well as measures that need to be taken by the member countries are given below:

# 5. National Law /Regulation

## 5.1 Consumer Protection

##

The response from the Member countries show the presence of national law pertaining to the consumer protection in all the following member countries who have responded to the questionnaire, as shown in the table below:

Sl Member Country Legislation on Consumer protection Agency responsibilities

 National Law Regulation

1 Bangladesh Consumers’ Right Protection Act • Ministry of Post, Telecommunication and ICT.

2 Bhutan Consumer Protection Act of Bhutan, 2012 • Consumer Protection Rules and Regulations, 2015 • The Office of Consumer Protection, Ministry of Economic Affairs.

• Bhutan InfoComm and Media Authority.

• Royal Monetary Authority of Bhutan

3 India • Consumer Protection Act 1986

• Information Technology Act, 2000

• The Payment and Settlement Systems Act, 2007

• The Aadhar Act, 2016

• • Credit Information Companies (Regulation) Act, 2005,

• CIC Regulations, 2006 • Consumer Protection Councils

• Consumer Disputes Redressal Agencies

• Reserve Bank of India

• Security Exchange Board of India

4 Nepal Consumer Protection Act, 1998 Consumer Protection Regulation 1999 • Ministry of Law, Justice and Parliamentary Affairs.

• Nepal Telecom Authority.

• Nepal Rastra Bank (NRB)

5 Pakistan • Consumer Protections Laws

• Payment Systems and Electronic Fund Transfer Act, 2007

• Prevention of Electronic Crime Act, 2016 • Telecommunications Consumer Protection Regulations, 2009

• Protection from Spam, Unsolicited fraudulent and obnoxious communication

Regulations, 2009 • Ministry of Commerce

• Ministry of IT and Telecom (MoIT&T)

• State Bank of Pakistan

• Federal Ombudsman

• Consumer Rights Commission of Pakistan (CRCP)

• Competition commission of Pakistan (CCP)

6 Sri Lanka Consumer Protection • Consumer authority of Sri Lanka

The above table also clearly indicates that besides telecom regulatory, there are other agencies responsible for promoting and protecting the rights of the consumers

## 5.2 Privacy, security and data protection

With regard to ensuring privacy, security and data protection, except in Bangladesh and Bhutan, there is no single stand-alone legislation in any of the member countries as shown below:

Sl Member Country National Laws governing privacy, security and data protection Agency responsibilities

1 Bangladesh • Information and Communication Technology (ICT) Act of 2006 • Ministry of Post, Telecommunication and ICT.

2 Bhutan • Information, Communications and Media Act of Bhutan 2018 • Ministry of Information and Communication.

• Bhutan InfoComm and Media Authority.

• Royal Monetary Authority of Bhutan.

3 India • The Aadhar Act, 2016

• IT Act,2000

• Credit Information Companies Act, 2005

• Indian Telegraph Act,1885

• Indian Wireless Telegraphy Act,1933

 • Ministry of Communication and Information Technology.

• Ministry of Electronics and Information Technology.

4 Nepal • Draft IT Act • Ministry of Communication and Information Technology.

• Nepal Telecom Authority.

• Nepal Police.

5 Pakistan • Pakistan Telecommunications Act, 1996

• Prevention of Electronic Crimes Act, 2016

 • Federal Investigation Agency (FIA).

6 Sri Lanka • Electronics act of Sri Lanka

• Computer Crimes Act • Sri Lanka CERT.

• Telecom Regulatory Commission of Sir Lanka.

• Ministry of Defense.

## 5.3 Concerns associated with the consumer protection in digital economy

Sl Member Country Concerns associated with Consumer protection

1 Bangladesh • Creating trust in overall online business process

• Ensure transparency in online transactions

• Clearly specify all the costs that will incur during online payment

• Proper fraud management

• Ensure quality of product

2 Bhutan • Privacy and Data protection

• Quality of service and experiences

3 India • Consumer Awareness

• Lack of comprehensive data protection and privacy framework

• Consumer Rights

• Securing the digital transactions/communications

4 Nepal • Quality of Experience,

• Appropriate Charging,

• Security

5 Pakistan • Privacy and Data Protection

• Digital Security

• Harmful Content on the internet

• Fraudulent activities in the digital space

6 Sri Lanka • Protect the privacy and security

• Protect them from illegal and harmful content

• Online /Mobile payment protections

# 6. Consumer Protection in Digital Economy

The digital economy has clearly raised new exciting opportunities but also challenges for consumers that will require increased attention from a regulatory perspective. Consumers are confronted with new issues brought about by the wider availability of new Information and Communication Technologies (ICTs) in terms of greater choice of devices, online services and applications. Identifying pro-active policy and regulatory measures in addition to co-regulatory and self-regulatory solutions and initiatives geared towards educating and empowering consumers is essential to protect the rights of all users in an open, transparent and inclusive digital world.

Recognizing the rights of all stakeholders to be balanced for ensuring both consumers and businesses benefit from digital opportunities, regulators around the world have identified and endorsed the following regulatory best practice guidelines to protect consumer interests while ensuring a level-playing field for traditional and new market players by fostering a light touch regulatory approach.

## 6.1 Regulatory best practices for Consumer Protection

### 6.1.1 National law

It is important for the governments to play continuous a major role in facilitating the protection of citizens at all levels through the development of a wide array of relevant legislation and government policies, such as national ICT and universal access policies, relevant consumer protection legislation, cybersecurity and cybercrime legislation, including on child online protection, quality of service and electromagnetic exposure limit regulations.

To supplement the national laws, the regulators must ensure that a series of regulatory measures are prioritized to establish self-adaptive regulatory mechanisms in order to build a secure and reliable cyber space. The regulations should redefine legitimate consumer rights and interests, which include but are not limited to:

• Access to publically available information and services over the Internet,

• Quality of service,

• Privacy, confidentiality and protection of personal data,

• the possibility to opt-out from features and services;

• the right to file a complaint; number portability; and

• Intellectual property rights.

• Legal control over access to and use of data stored in the digital format.

• Safeguarding digital information from corruption and/or loss

• Rights of individuals to be safe guarded while recognizing the vast business and efficiency potential of data analytics

• Ability of individuals to understand and control the manner in which information pertaining to them can be accessed and used by others.

• Solution to address the issue of cross-border transfer of data

Regulators and policy makers should strive to protect above rights universally and equally within the scope of laws and regulations.

### 6.1.2 Regulatory framework

Digital consumer protection and empowerment should be an integral part of the regulatory framework to effectively address the complexity of digital markets and the experience of consumers online. Regulation should be proportionate to the characteristics, type and variety of digital services and products and consumers’ rights and responsibilities. The consumer protection framework should meet requirements as set out in international guidelines, recommendations and regulations such as the UN Guidelines on Consumer Protection, and provide consumers with an equal level of protection whether their activities are carried out online or offline and regardless of location. It should address new challenges arising from consumer use of digital technology such as security, liability, complex terms, incompatibility and affordability. Interventions should be evidence-based and outcome-focused, and recognise where non-regulatory solutions may have more impact on consumer outcomes.

Besides developing a comprehensive regulatory framework on consumer protection, it is also best practice for the regulator to legally prohibit the use of general terms and conditions that provide to the customer's detriment by the service providers. The regulator should ensure that:

• The unjustified and disproportionate differences between the rights and obligations arising under the contract for ICT services should be prohibited irrespective as to whether it was concluded online or otherwise, and

• The terms and conditions for concluding contracts online, the form of such contracts as well as the related procedures (e.g., user identification, order confirmation, cancellation and termination) are made transparent by the service providers.

6.1.3 Consumers’ participation and empowerment.

If the regulators want to represent the consumers then it is essential that the consumers’ voices are heard, either directly or through a committee. Therefore, besides developing framework, it is a good practice for the regulator to establish a committee or forum to look into issues associated with consumers’ right as well as collect market information on a regular basis and publish regularly .

• The Egyptian regulator (National Telecommunications Regulatory Authority) had established Telecom Consumers’ Right Protection Committee in 2004 where representatives from outside the regulator are also involved. This committee meets regularly to discuss consumers’ concerns and set policies and strategies plans including consumer awareness campaigns, conduct market research work , check quality of services offered and, gather and disseminate information.

• The Malaysian’s regulator (Malaysian Communication and Multimedia Commission) has set up a consumer Forum called “the Communications and Multimedia Consumer Forum of Malaysia (CFM)” in 2001 to encourage the development of industry self regulation. The primarily role of this committee was to develop and oversee Codes that serves as dual purpose of promoting high standard of services in communication and multimedia industry while protecting the interest of the Malaysian consumers.

• The Indian regulator (Telecom Regulatory Authority of India) has used telecom operator’s data to create performance indicators. It takes data supplied by the operators against series of performance benchmark and reports the result every quarterly. Such information assist consumers make choice between the operators.

### 6.1.4 Development of innovative consumer service by Regulators

One of the best practices to advocate on the consumer right and protection is to come out with innovative approaches to engage consumer and provide them much need information by the regulators. The following are some of innovative consumer services provided by the regulators:

• The United Kingdom’s regulator (Office of Communications) has a well-developed consumer advice section on its website.

• Hong Kong’s regulator( Office of Communication Authority) provides a separate Consumer focus on its website which provide detail information on consumer education, enquiries and compliant, different services(television, sound, fixed and mobile services), unfair trade practices and unsolicited electronic messages).

However, in some countries with less well-educated population, the regulators have also come out with different approaches to educate, advocate on consumer right and protection. For example, the regulator of Zambia (Communication Authority of Zambia) uses a combination of two different approaches (“the town hall’ meeting and broadcast voice message). The regulator goes out every month to different part of the country explaining their work and listening to the views of the participants. Besides they also use radio and television to get their message across.

### 6.1.5 Collaboration for better protection of citizens and consumers in digital economy

To provide better protection of citizens and consumers in the digital economy, it is a good practice to improve collaboration, both at the national as well as regional level, amongst different regulators involved with consumer protection.

• Cooperation and collaboration at National Level

Study claimed that cooperation with other law enforcement authorities is a key component of effective consumer protection enforcement . There is wide recognition among different regulators on the importance of domestic co-operation to protect consumers from fraudulent and deceptive commercial practices. The inter-agency cooperation at the national level should be carried out with a variety of authorities involved in the field of competition, data protection, telecommunications, financial service, health, environmental protection and transport.

Due to the convergence of technology and the cross cutting nature of the ICT services, many of the today’s enforcement challenges fall within the intersection of legal frameworks for consumer protection, data protection and competition . Therefore, certain practice might violate consumer protection, privacy and competition law simultaneously. Since different regulators are charged with overseeing these issues, there is an increase overlap over the roles and responsibilities. Such circumstances have started to demand for a need to break down the traditional “silo” approach and promote more cooperation and close dialogue amongst different regulators to achieve common goal and to avoid inconsistency approach and duplication of enforcement powers. The forms of cooperation can take places by information sharing, setting up new guidance, conducting joint investigations and enforcement actions. Such cooperation will help to protect consumers from fraudulent and deceptive commercial practices, for instance by detecting breaches of consumer laws in a timely manner and enforcing the laws effectively.

• Cooperation and collaboration at Regional Level

Since the digital economy involves business to consumer (B2C) interactions and transactions across borders, there is a need for stronger and more routine cooperation in the cross-border enforcement. The complexity of the global e-commerce supply chain highlights the need for greater cooperation and collaboration to detect and deter the sale of unsafe product to the consumers . Such cooperation and collaboration will provide more consistency regulatory and trust for the consumers and business.

### 6.1.6 Enforcement of national laws, rules and regulations governing consumer protection in a converging environment

Effective enforcement of national policies and regulations on consumer protection is a critical component of safeguarding the public interest and helping to protect consumers. Therefore in the converging environment, it is a good practice to segregate and delineate amongst various agencies associated with the consumer protection as practiced in some of the following countries :

• In Turkey responsibility for consumer protection is divided between the Information and Communication Technologies Authority (ICTA) (www.btk.gov.tr), which has a consumer protection section and the Directorate General for Consumer Protection and Competition (www.tuketici.gov.tr), which is part of the Turkish Ministry of Customs and Trade. There is a clear division of responsibilities between the two bodies, with formally agreed principles about the division of work. For example if a consumer complaint about telecommunication services is sent to Directorate General for Consumer Protection and Competition, this is forwarded to ICTA if appropriate.

• In China, where the State Council has set a target of 2013 for full telecom and media convergence, the two regulators concerned – the Ministry of Industry and Information Technology (MIIT) and the State Administration of Radio, Film and Television (SARFT) take different approaches to regulation. Censorship of content remains under the control of broadcasters and SARFT, which appears to have created difficulties for telecommunication providers who would like to expand their IPTV and mobile services. To date there has been a relatively low uptake of IPTV and mobile TV services in China, compared with the huge subscriber base for fixed broadband and 3G mobile subscribers.

• In South Korea by contrast, the broadcast regulator and Ministry of Telecommunications reached agreement in 2006 (after lengthy debate) to have joint control over IPTV services. Since that time there has been a rapid growth in IPTV subscribers, reported by the IPTV operators to have increased to 1687,833, a 34,000 rise in the six months to January 2013, due mainly to a rapid growth in consumers using real-time services.

• In the UK, the government has proposed legislation for a new Consumer Bill of Rights.43 The aim is to develop a new framework that will reduce regulatory burdens on business (by having a single consumer rights framework rather than the current 12 pieces of legislation) that is future proofed to accommodate future innovations and which can support consumer confidence by putting appropriate safeguards in place

### 6.1.7 Multiple channels for redress

The Telecom/ ICT regulator should play an important role in mediating consumer complaints for redress in collaboration with the Consumer Protection Authority. It is a good practice for the regulator to follow the three stages of complaint redressal mechanism :

• Resolution by Service Providers

• Resolution by Consumer Grievance Redressal Forum (CGRF), if any and

• Resolution by Telecom Ombudsman

It is believed that by putting in place Complaints handling procedures in which consumers are encouraged to first seek redress with service providers can be successful as it increases service providers’ awareness of consumer needs, rights and responsibilities . The consumers should not only have the right to complain, but more importantly, should also have the right to seek a remedy whenever their rights have been infringed by the service providers. Besides the system of complaining to the service providers, the regulation should also encourage multiple channels for redress. An alternative mechanisms such as conciliation, arbitration and self-resolution should be introduced for setting disputes in addition to formal adjudication and good offices to ensure that consumers could defend their rights rapidly at no or minimal cost.

## 6.2. Analysis / Findings on the current consumer protection status in SATRC countries

As per the information (questionnaire) obtained from the SATRC member countries, the following analysis/ findings were made on the current consumer protection status:

### 6.2.1 Current regulatory frameworks in relationship to consumer protection

All the six (6) member countries who have responded to the questionnaire reported having specific legislation for consumer protection and consumer rights for telecoms/ICT consumers. Where legislation exists, the most commonly cited consumer related provisions are associated with telecommunications services including on-line services such as electronic commerce, online content, games etc.

The existing regulatory framework in all six member countries looks into consumer concerns in general to ensure irregularities concerning the quality, prices of consumer goods or services,

### 6.2.2 Absence of uniform law

At present, most of the member countries lack uniform law which deals with the issues arising out of digital economy. There is no uniform standard on the consumer protection which service providers need to comply before commencing services. At the same time, there is a lack of concentrated approach for promoting digital economy. Many government agencies such as Ministry, regulators, law enforcement as well as consumer authorities are responsible for consumer protection without clear delineation of functions and responsibilities.

Effective enforcement of national policies and regulations on consumer protection is a critical component of safeguarding the public interest and helping to protect consumers. Since there is an existence of structural problems of many agencies responsible for the consumer protection, this might become a stumbling block in carrying out an effective enforcement unless there is a proper institutional set up to harmonize different laws and regulations associated with consumer protection.

### 6.3.3 Enhancing Consumer Awareness

Most of the member countries stressed on the importance and need for the consumer awareness campaigns on a large scale to sensitize the population to build consumer trust. Some of the concerns of the consumers that need to be addressed are:

• Quality of Services and Experiences

• Appropriate charging

• Privacy and data protection

• Online/mobile payment protections including securing digital transactions

• Protection from illegal and harmful content

Majority of the member countries felt that the protection of the privacy of consumers’ data and ensuring consumers’ data is used for the purposes intended are essential safeguards in a converged environment.

### 6.2.4 Lack of comprehensive data protection and privacy framework

Besides recognizing the right to privacy as a part of fundamental rights in all of the member countries, there is no omnibus law on data protection or data privacy in their respective country. The existence of isolated laws does not address the problem sufficiently rather they deal with the issue of data protection and privacy in a piecemeal fashion. There is no actual legal framework in the form of data protection, data quality and proportionality, data transparency etc. which properly addresses and covers data protection issues as per accepted international norms and standards.

Majority of the member countries believe that a comprehensive data protection law would be essential and useful to ensure the growth of the digital economy while keeping personal data of citizens secure and protected. However, the law has since been in the making.

## 6.4. Recommendations

6.4.1 Segregation of responsibilities of overlapping agencies.

 The responses from the member countries indicate the presence of structural problems with many agencies associated with the consumer protection. Such structure might become a stumbling block in carrying out an effective enforcement, therefore it is recommended to put in place a proper institutional set up to harmonize different laws and regulations associated with consumer protection.

Such institutional set-up can assist in harmonization of the sector governance by different regulators by avoiding duplication of roles and responsibilities of the overlapping agencies, especially in terms of consumer complaint handling functions and resolution mechanism. Clarity in terms of roles and responsibilities of overlapping agencies will bring in certainty and trust amongst the consumers. The segregation of responsibilities of overlapping agencies can be solved, either through:

• Entering into memorandum of understanding, or

• Specifying clearly the provision association with consumer protection in their respective laws.

### 6.4.2 Collaborative regulatory approach for effective enforcement of Consumer Protection Laws

In the absence of uniform law and presence of multiple regulatory agencies responsible for consumer protection in most of the SATRC member countries, collaborative regulatory approach is recommended for the effective enforcement of national policies and regulations on consumer protection.

a) National level

At national level, while enforcing and reviewing relevant legislations on consumer protection, it is recommended that the government (policy makers) and telecom regulators must establish effective mechanisms for cooperation (such as memoranda of cooperation) with dedicated consumer protection authorities, service providers and other relevant bodies. The co-operation and collaboration with other law enforcement authorities is a key component of effective consumer protection enforcement. Some of the recommended initiatives that could be adopted to foster cooperation and collaboration amongst enforcement agencies are:

• Facilitate communication, cooperation and where appropriate develop and enforce joint or common compliance regulations or guidelines associated with the ICT consumer protection.

• Improve the ability of the enforcement agencies, as appropriate to cooperate and co-ordinate the investigations and enforcement activities, either through notifications or information sharing, investigation assistance or joint actions.

• Continue to build consensus on core consumer protections to further the goal of promoting consumer welfare and enhancing consumers trust.

• Cooperate and work towards developing agreement or other arrangement based on mutual recognition and enforcement of judgement resulting from the dispute between the consumer and the service providers or the law enforcement actions taken to combat fraudulent, misleading or unfair practices.

Besides collaborating and cooperating with the government agencies, it is also recommended to partner with the ICT industry players. They play a vital role in ensuring not only transparency and accountability of their business practices, but also wiliness to adopting measures geared at protecting the rights of consumers, such as protecting personal data, fighting misleading as well as unfair mass advertising, spam, the permanency of data, and child online protection.

b) Regional level

Since digital economy involves cross-border issues, it is recommended for a need to foster regional cooperation and policy implementation. The regional cooperation and harmonization of regulations and initiatives are essential to deal effectively with cross-border issues related to content and services provided by regional service providers including consumer privacy, online fraud and cybercrime related to e-commerce and social media activities. For example, the European Council has adopted a regulation to strengthen cooperation between EU national authorities responsible for the enforcement of consumer protection laws. The regulation aims at modernising cooperation mechanisms to further reduce the harm caused to consumers by cross-border infringements to EU consumer law.

Some of the following regulatory initiatives recommended for fostering cross-border cooperation are:

• Sign a bilateral cooperation (Memorandum of Understanding) with the neighbouring regulators to promote cooperation and coordination of enforcement and training activities related to consumer protection.

• Establishment of mechanism to receive complaints from consumers from the neighbouring countries.

• Information sharing abilities with the foreign counterparts in timely and effective manners to detect and track consumer detriment from unsafe, fraudulent and deceptive commercial practices across the border.

• To assist in an investigation of a domestic ICT service provider by the foreign counterpart when such request is received.

### 6.4.3 Empowering consumers

ICT regulators should be proactive in promoting, informing, encouraging and raising awareness to stakeholders of the benefits and challenges of a connected broadband world. In doing so, it is important to recognize the need to protect and educate consumers with different access needs who may be particularly vulnerable to deceptive commercial practices or have difficulties fully understanding terms and conditions of service (e.g., the illiterate, the disabled, children and youth). Some of the regulatory initiatives that could be taken to empower consumers are:

• Educate consumers to foster informed decision making and increase consumer awareness on consumer protection framework including their rights and obligations as well as to make informed choice on the services availed.

• Improve consumer’s digital competence through education and awareness programme aimed at providing relevant skills and knowledge to access to use digital technology. Such programmed should be aimed towards the need for different age groups, income and literacy etc. using multiple medium.

• Adopt multiple medium such as broadcasting, social media, print media etc. to educate citizens.

7. Regulatory Practice for maximizing the use of big data for the socio- economic benefit of the countries

## 7.1 Big data- definition

Big data is a term that describes the large volume of data – both structured and unstructured – that inundates a business on a day-to-day basis . Big data allows analysts, researchers and business users to make better and faster decision using data which were either previously inaccessible or unused. With the use of advance analytics techniques such as text analytics, machine learning, predictive analytics, data mining, statistics and nature language processing, many organization , both government and private, can analyze previously untapped data sources independent or together with their existing data to gain new insights resulting in better and faster decisions.

Big data refers to the collection and analysis of large and complex data sets. The data sets are so large that they cannot be analyzed using traditional techniques. Instead, data analytics tools are applied to process a wide variety of data types at very high speeds. For instance, data on weather, insects, and crop plantings has always existed. But it is now possible to cost-effectively collect those data and use them in an informed manner. We can keep a record of every plant’s history, including sprayings and rainfall. When we drive a combine over the field, equipment can identify every plant as either crop or weed and selectively apply herbicide to just the weeds.

## 7.2 Socio-economic impact of Big Data

A recent OECD report listed some of the ways that more and better data will affect the economy :

• Producing new goods and services;

• Optimizing business processes;

• More-targeted marketing that injects customer feedback into product design;

• Better organizational management; and

• Faster innovation through a shorter research and development cycle.

Some of the economic, social and ethical impacts of bid data are given below:

### 7.2.1 Crises management

The social media data could be used to assist in humanitarian relief efforts during crisis situations. Such data could provide positive economic impacts related to the better provision of humanitarian relief services, the provision of better, more targeted and timelier social services and better resource efficiency in providing these services. The data from social media is reliable information, on the ground, much more quickly to aid the situational awareness of the humanitarian organisations. Therefore, the integration of big data, or data analytics, within the humanitarian, development and crisis fields has the potential to distract these organisations from their core focus and may represent a drain on scarce resources.

As per the report of GSMA , mobile industry is harnessing big data to help public agencies and NGOs to tackle epidemics, natural disasters and environment pollution. While respecting the individual privacy and safeguarding personal data, the mobile industry could provide information on the where about of the impacted people, in which direction they are moving and how the environment is changing.

### 7.2.2 Energy

The energy sector could big data for management, exploration and production of energy). While big data still needs to prove its effectiveness in managing the energy sector, the industry is beginning to realize its potential and there are many on-going initiatives, especially in operations. The adoption of big data will promote in revamping the energy sector by reworking on the existing business models - reducing the operational cost, improvement of recovery rates and to better support decision management.

### 7.2.3 Environment

The environment case study has been conducted in the context of an earth observation data portal (EarthObvs), a global-scale initiative for better understanding and controlling the environment, to benefit society through better-informed decision making. On the positive side, the use of big data is credited with having strong implications on the economic growth, e.g. sea data for fishing nations and weather data for tourism, for the mere direct effects on the IT sector such as opportunities for infrastructure/hardware/data centres, and rent-sharing possibilities for computing. However, big data could as well be seen as a threat by traditional services, for example in the weather forecasting sector

### 7.2.4 Health care

Big data is generating a lot of hype in healthcare industry. A number of use cases in healthcare are well suited for a big. Some academic and research-focused healthcare institutions are either experimenting with big data or using it in advanced research projects. Those institutions draw upon data scientists, statisticians, graduate students, and the like to wrangle the complexities of big data. When big data is managed effectively, health care providers can uncover hidden insights to improve patient care.

## 7.3 Regulatory issues concerning big data

Big data comes from multiple sources at a high velocity, volume, variety, and degree of complexity. It is generated by everything around us at all times. For example, data can originate from our use of social media, online purchases, streaming, and sensors used in the Internet of Things (IoT). Every interaction in e-commerce and social media produces it and computer systems, sensors, and mobile devices transmit it. Thus, optimal processing power and analytics capabilities are needed to extract meaningful information from big data. However, there are some legal and regulatory issues associated with the use of big data. Some of the legal and regulatory issues are given below:

### 7.3.1 Consumer Privacy

The legal and regulation issue concerning the use of big data is the consumer privacy. In the absence of single, comprehensive law regulating the collection, use, and sharing of personal information, it would be very difficult to ensure consumer privacy. Ensuring better protection of personal data and information would be a major concern associated with big data.

###  7.3.2 Security of Personal Information

Ensuring better protection of personal data and information would be a major concern associated with big data. In the absence of good data protection law which requires appropriate administrative, physical and technical safeguards to ensure the confidentiality, integrity, and security of personal information.

### 7.3.3 Ownership of the Data

Ownership rights to big data can provide a competitive business advantage since the data owner controls how the data may be used and shared. For example, Twitter’s data licensing business is its fastest growing revenue. Twitter sells its “firehose” of over 500 million daily tweets to various companies that try to turn the tweets into actionable information. Most of the business value in big data is derived from combining data from different sources. Ownership of data resulting from the data analytics is also important. Rights to data are usually allocated in the privacy policy and terms of service agreement (TOS) for websites, online services and mobile apps.

Traditional signed agreements may be used in business-to-business transactions. For example, a signed agreement might be used between an IoT provider and its farm customers in a smart agriculture application. Joint ownership is a middle ground for ownership allocations in some business-to-business transactions. Therefore the ownership and the right to use of data are going to be a major regulatory challenge.

### 7.3.4 Intellectual Property Protection.

Some data analytics software appears to remain patentable; however patent holders and applicants will face challenges if they rely on computer execution of nothing more than routine algorithms. Inventive steps will be needed to make big data analytics software patentable . Such a patent may lose its value over time because an algorithm may improve over the one described in the patent, thereby requiring additional patent applications to be filed.

Only few the big data may be protected by copyright. Internationally, copyright law provides an exclusive right that applies to a form of expression, not the meaning of text written by human authors. If there is only one way to express content, then there is no copyright protection because there is no originality. Any data generated by machines or sensors will not be covered by copyright . Therefore, there will be a large amount of big data will fall outside of copyright protection.

# 8. Conclusion

While conducting this study, it has been observed that the member countries have different regulatory environment for dealing with the consumer protection. Therefore, it is quite difficult to come out with one model which could be used by member countries. However, the review of the regional and international best practices will definitely assist the member countries to evaluate their own interventions in propagating the ICT consumers’ right and structuring more effective consumer protection regulatory intervention in near future through collaborative approach.