

«Product-attribute information» and «product-use information»
Smart disclosure and new policy implications for consumers' protection

By
Elisa Brodi*

* Bank of Italy, Law and Economics Department, Research Area, Via Nazionale n. 91, 00184, Rome (e-mail: elisa.brodi@bancaditalia.it). The views expressed in this article are those of the author and do not necessarily represent the views of, and should not be attributed to, the Bank of Italy.

Abstract

Scholars in law and economics have long addressed the issue of how to protect consumers when asymmetric information taints their relationship with their professional counterparties. Particular attention has been devoted to the fact that consumers are not familiar with the features of the products they are offered. On the contrary, little attention has been devoted to the fact that another piece of information might be important to the consumers, namely the information about their use patterns. As recent studies have shown, consumers are not aware of their usage habits, while professionals spend enormous resources in mapping and recording them (Ayres, 2007). This might suggest the opportunity of a regulatory intervention, as the consumers are also affected by this asymmetric information.

This phenomenon is part of a novel regulatory approach named «smart disclosure» that is arising in the U.S and in the U.K. One example of such a regulation is expressed by the «Record, Evaluate and Compare Alternative Prices» (RECAP) model, according to which firms should disclose to every consumer their personal usage information by means of electronic documents. In this way, consumers can easily download their usage information file from their provider's webpage. Then, users can upload their electronic document to an independent «comparative website» that will show them what prices are charged by different competitors, for the same product (or service) usage pattern. This paper surveys the literature on product use information and analyzes whether and to what extent Italian regulator is trying to ensure consumers' awareness as to their use pattern. Particular attention is devoted to the Italian mobile phone market and to the comparison tool named Supermoney, whose activity is supervised by the Italian Communication Authority (AGCoM). Lastly, this work detects which features pertain to effective consumer protection law based on product-use information.

1. How to reverse the imbalance. Product-use information disclosure within the «RECAP» model

In markets for consumer goods affected by asymmetric information, the regulation is generally focused on the traditional duty to disclose the information about the attributes

of the product (so-called «product-attribute» information). To date, lawmakers regard product-attribute information as the main piece of information that consumers use to process when taking a transactional decision¹. However, it is common knowledge that in some important domains, like mobile phone as well as credit and energy markets, product-attribute information is not available at all to consumers or it is only available for a fee: collecting data is costly, in terms both of time and effort. This is the reason why policymakers select precisely which data must be disclosed or, alternatively, request companies to select and disclose information deemed to be relevant for the consumer's decision making. The latter is the way through which the Unfair Commercial Practices Directive works within the European market.

In addition, it should be noted that the legal discourse is fairly scant regarding the role played by a complementary set of data: the so called «product-use» information, *i.e.* the information relating to *how* consumers use the product or service purchased. One could say that product-use information does not pose a traditional asymmetric information problem. On the contrary, it seems that there is a sort of «reverse» asymmetric information problem: usage data appear to be easily available to consumers, because they are substantially *produced* by the consumers, whereas, providers have to make an effort in collecting and processing this kind of information. However, undertakings are conscious of the high value of these data and are used to gathering them to better profile and target their customers; especially as far as the credit card market is concerned².

To date, the academic analysis of product-use information is limited to a few key contributions tracing back to the U.S. debate (Bar-Gill and Stone, 2012; Bar-Gill and Board, 2012; Kamenica *et al.*, 2011; Bar-Gill, 2011; Bar-Gill and Ferrari, 2010; Thaler

¹ The concept of «transactional decision» belongs to the Unfair Commercial Practices Directive (Directive 2005/29/EC, adopted in May 2005). According to the European Commission, the definition of transactional decision «should cover a wide range of decisions made by the consumer in relation to a product or a service». See European Commission (2009), *Commission Staff Working Document. Guidance on the Implementation/Application of Directive 2005/29/EC on Unfair Commercial Practices*, released December 3, 2009. Brussels. The document is available at:

http://ec.europa.eu/consumers/rights/docs/Guidance_UCP_Directive_en.pdf.

² See, MasterCard mines data for marketers, Financial Times, October 16, 2012, article available at: <http://www.ft.com/intl/cms/s/0/089f7cd0-16f2-11e2-b1df-00144feabdc0.html>.

et al., 2010; Bar-Gill and Stone 2009; Thaler and Sunstein, 2008). Scholars in law and economics have shown the positive effect that stems from product-use disclosure: *i*) it allows consumers to select the products that suit them best, at the same time reducing search costs; *ii*) it lowers consumer expenditure considerably, at least when prices are given (Kamenica *et al.*, 2011)³. In particular, within the above-mentioned debate a new regulatory model has been proposed – the Record Evaluate and Compare Alternative Prices (hereinafter, RECAP) (Thaler *et al.* 2010; Thaler and Sunstein, 2008). RECAP deserves specific attention for its positive implications in terms of consumers’ benefits. The aim of the model is basically to obtain a well designed consumer protection legal framework and according to it disclosure mandates should target: *i*) information on product pricing structure (firms should also explain how product use will affect the total cost); and *ii*) data on past customer usage history (assuming that parties are in a long-term relationship). In brief, it is an approach that matches the disclosure of information on product characteristics and user’s usage habits. Indeed, these two pieces of information are crucial to customers, since the total cost associated with a product (or service) is a function of both product characteristics and consumption habits (Bar-Gill and Board, 2012).

Thanks to the above mentioned contributions, many U.S. agencies started promoting a new form of disclosure, named «smart disclosures», that puts, among others, product use information at its centre. As recently stated by Professor Sunstein, former Administrator of the Office of Information and Regulatory Affairs⁴:

The term “smart disclosure” refers to the timely release of complex information and data in standardized, machine readable formats in ways that enable consumers to make informed decisions. Smart disclosure will typically take the form of providing individual consumers of goods and services with direct access to relevant information and data sets. Such information might involve, for

³ When prices are not given, in the short run product-use information lowers consumer expenditure; to the contrary, in the long run, prices are expected to increase.

⁴ See Office of Information of Regulatory Affairs, Memorandum for the Heads of Executive Departments and Agencies *Informing Consumers through Smart Disclosure*, issued on September 8, 2011, p. 2.

example, the range of cost associated with various products and services, including costs that might not otherwise be transparent. In some cases, agencies or third-party intermediaries may also create tools that use these data set to provide services that support consumer decision-making. Such decision-making might be improved, for example, by informing consumers about the nature and effects of their own past decision (including, for example, the costs and fees they have already incurred). (...) In many cases, smart disclosure enables third parties to analyze, repackage and reuse information to build tools that help individual consumers to make more informed choices in the marketplace.

Individual data can be disclosed both by public sector (some agencies gather personal data because of their institutional activities) and by nongovernmental sector (it is a frequent circumstance that companies keep track of their customers' consumption behavior) (Executive Office of the President National Science and Technology Council, 2013). In the U.S. the «smart disclosure» programme is currently driving agencies to release public data in a standard, machine readable format (see www.data.gov). The idea is to provide the market with broad public dataset; in this way, private parties are able to develop application or search engine that analyze and process such data, helping consumers to make better choices. The U.S. programme also aims to disclose private sector data: for example, in the energy market, under the «Green Button» initiative (www.greenbuttondata.org), many utilities are currently disclosing to customers their digital consumption data (see *infra*). Moreover, under the «Blue Button» initiative (<http://bluebuttondata.org>) veterans, Medicare beneficiaries and military service members can download their health data: such information can be used to keep track of their total medical expenses and to choose the best health care insurers. In the U.K. very similar initiatives are going on, like the «Midata» project: a public-private partnership according to which companies voluntarily disclose customers their personal data⁵. Currently, the UK Government is also considering the option to make such a disclosure mandatory.

⁵ See: <http://www.bis.gov.uk/policies/consumer-issues/consumer-empowerment/personal-data#consumer>.

In order to assess how «smart disclosure» works, the mobile phone sector can be used as benchmark. Indeed, the presence of extremely different fees and plans often prevents consumers from finding the product that best fits their needs.

According to RECAP, mobile operators should firstly disclose information regarding the plan pricing structure. Secondly, providers have to disclose to every customer what her usage profile is, using the data referred to in her previous monthly or annual bill. Such a communication should not contain a simple summary of the calls made but, rather, it should highlight how the habits affect the overall expenses. It is worth considering, for example, a plan whose price changes in relation to the time (morning, afternoon, or evening) in which conversations take place. In this case, a communication that only lists the calls and the related cost would be ineffective. By contrast, it could be more efficient to group the calls by time of day, highlighting the cost stemming from each time-slot (morning, afternoon, or evening). Allowing customers to know exactly how the product's price structure is designed and what their usage profile is, can be positive in three ways: *i*) it promotes products comparison, reducing search costs; *ii*) it permits consumers to buy the best products or services for their habits; *iii*) it spurs firms to compete on innovation.

Given the above, it is clear that the RECAP model is mainly based on the disclosure of product-use information. Thus, it is crucial for the model to function that consumers actively use such data. The idea underlying the RECAP regulation is as simple as it is effective: forcing firms to disclose to every consumer their personal usage information by means of electronic documents. In this way, consumers can easily download their usage information file from their provider's webpage and upload it to an independent «comparative website». The aim of these websites is to show customers what prices are charged by different competitors, for the same product (or service) usage pattern. Basically, as it has been recently stressed, comparative websites would serve as «choice engine» (Thaler, 2012; O'Reilly, 2012).

Hence, lawmakers should make product-use information disclosure mandatory, since providers have otherwise poor incentive to disclose such data (Bar-Gill and Board, 2012; Gamper, 2012). An exception is possible, though. Notice the «Green Button» initiative under which energy suppliers, on a voluntary basis, provide their customers with digital usage data; at the moment, seventeen large utilities offer this service and

twenty-one committed themselves to implement it⁶. Indeed, as recently noted (Thaler and Tucker, 2013) firms that move early can benefit from a sort of «first mover» advantage, having the opportunity to shape data standard.

On the other hand, scholars have highlighted that disclosure mandates should be enforced only when collecting and providing such data is not costly for firms (Kamenica *et al.*, 2011; Kronman, 1978). This is the case, since firms should gather usage data for the periodic bill.

In light of the above, the comparative websites' efficiency and independence turns out to be crucial for the RECAP model to function.

Unfortunately, a quick look at some markets of consumer goods shows that several obstacles stand in the way of fully satisfactory search engines activity. First of all, it is necessary to point out the frequent lack of independence of such tools, which usually base their revenues on the brokerage fee --generally proportional to the number of new contracts signed through the website-- paid by companies⁷. This is the business model chosen by the well known American «Billshrink» (www.billshrink.com) and the German «Verivox» (www.verivox.de). This business model could provide an incentive for the website to list at the top of the ranking the firm that pays the higher commission (Gamper, 2012).

Secondly, it is essential that the websites collect and organize data referring to all products or services available in the market: it is crucial to provide a comprehensive «picture» of the offer. This point can be closely linked with the search engine business model: if the website asks firms for commission when listing results, some competitors could prefer not to be listed at all (Gamper, 2012).

Thirdly, the comparison turns out to be effective if the price shown by the website expresses the total cost that the consumer is going to pay. In other words, the price should include all extra-fees related to the purchase: think, for example, about the

⁶ See <http://www.greenbuttondata.org/greenadopt.html>. Last site access: September 25th, 2013.

⁷ The European Commission has recently stressed that the activity carried out by not fully independent comparative websites represents a breach of the general unfair commercial practices ban. See European Commission (2009), “Commission Staff Working Document. Guidance on the Implementation/Application of Directive 2005/29/EC on Unfair Commercial Practices”, Brussels, p. 8.

surcharge sometimes requested for electronic payments by airline companies⁸. At this regard, there could be room within the EU market to enforce the Unfair Commercial Practices Directive, according to which traders should disclose «the price inclusive of taxes, or where the nature of the product means that the price cannot reasonably be calculated in advance, the manner in which the price is calculated, as well as, where appropriate, all additional freight, delivery or postal charges or, where these charges cannot reasonably be calculated in advance, the fact that such additional charges may be payable».

However, the proposed approach turns out to be a valuable expression of a behaviorally informed regulation (Sunstein, 2011; Shafir, 2013), since it pays specific attention to the way in which the information is provided in order to be easily processed (Jolls *et al.*, 1998).

At this point, it seems interesting to explore how a consumer protection law can include in its regulatory framework the «product-use information» disclosure.

2. From theory to practice. How the Italian consumer protection law has implemented the RECAP model

The RECAP regulation depicts a new challenging way to devise consumer protection, since it is not paternalistic (Thaler and Sunstein, 2003) and it represents a valuable expression of a good «choices architecture» (Thaler *et al.* 2010; Thaler and Sunstein, 2008). As mentioned above (see par. 1), the regulatory model is essentially based on the existence of comparison websites able to ensure independence and completeness of the information provided. Hence, in order to promote creation and diffusion of such websites, it is necessary to imagine an active role played by the Authorities that supervise the market analyzed.

With this in mind, it is worth looking at how the RECAP model has been implemented within the Italian regulatory framework, paying specific attention to the mobile phone market.

⁸ Although within the Italian legal system there is a general «no-surcharge» rule, some firms require consumers to pay an extra fee for processing an electronic payment.

Art. 71, of the legislative decree n. 259 adopted in August 2003, determines that: *i*) it is a general right for customers to know transparent and up-to-date information on mobile tariffs; *ii*) the Italian Communications Authority (Autorità per le Garanzie nelle Comunicazioni, hereinafter AGCoM) encourages the disclosure of comparable information in order to enable end-users and consumers to make an independent evaluation of the cost stemming from alternative usage patterns.

After the law has entered into force, AGCoM adopted decision n. 126/07/CONS according to which every consumer has the right to know, free of charge, her usage profile. The usage profile consists of a list of data pertaining to the previous bi-monthly bill (*i.e.* the minutes of phone conversation, the number of text messages sent and the data downloaded through the mobile connection). With this tool, each consumer can compare her monthly cost with the monthly cost that would be charged by different competitors for the same consumption pattern.

In order to enforce this provision, AGCoM adopted further measures (under decision n. 331/09/CONS) to foster active use of the usage profile. The idea underlying this set of prescriptions is to promote the establishment of independent price comparison websites by setting four operational criteria. If such criteria are met, AGCoM grants the website a formal authorization as an «approved comparison website». In addition, it should be noted that, prior to submitting its application to AGCoM, each website must have: *i*) at least one year of work activity; and *ii*) more than 2.000 users. These requirements guarantee that the search engine is well known and used by many customers within the mobile phone market. Website's owners and representatives are also asked to prove they are not linked with market operators.

Moreover, specific attention must be paid to the following criteria set by the Authority that make the applicant eligible for the formal approval. The first criterion is related to the website's *accessibility* and it requires the search engine to operate not only on-line but also allowing users to download and use the comparison software off-line. In this way users who do not have access to a broadband connection can be able to process their usage information data. The provision helps increase the number of comparison website users, but it loses its bite if we consider the high amount of Italian customers who do not have an internet access at all (according to the Italian National

Institute of Statistics, in 2012, only 55.5% of the Italian families had an internet access at home)⁹.

The second criterion ensures *transparency*: the search engine has to compare firms' products using price as the main driver, ranking the offers from the cheapest to the most expensive. This provision establishes a sort of non-discriminatory rule, by imposing the website not to «prefer» one competitor over another when processing the list. In other words, websites are forced to offer an independent service.

The third criterion is about *accuracy*. In order to make an effective comparison, the website must gather a comprehensive set of information related to each fee available in the market. Hence, the search engine should technically be able to process a significant amount of data. Therefore, carriers should inform both the communication Authority and the authorized comparison websites of any rate applied; such a communication must take place no later than the first day after a new product/service has been released. AGCoM fines operators that do not timely comply with this provision (recently, the Authority has imposed pecuniary sanctions on three major mobile companies¹⁰).

A specific provision is devoted to the last, and most relevant, requirement, which deals with *completeness*. In particular, in order to allow customers to evaluate plans from different service providers, the law states that each consumer should be able: *i*) to use as benchmark a standard usage profile; or *ii*) to upload to the comparison website an electronic document that encloses her monthly or bi-monthly usage data (*i.e.* her usage profile). Such data should be available for the consumer to download directly from her operator website. Such a provision forces providers to organize usage information in standard formats, which can effectively interface with the comparison website.

Eventually, it should be stressed that AGCoM can withdraw the authorization as approved comparison website if a breach of the Italian Data Protection Code occurs in collecting and managing personal data. The final result is a regulation that embodies most of the «smart disclosure» (see par. 1) characteristics recently stressed by the U.S.

⁹ See the Report «Citizens and new technologies» issued by the Italian National Institute of Statistics on December 20th, 2012, available at <http://www.istat.it/it/archivio/78166>.

¹⁰ See decisions n. 268/12/CONS, n. 251/12/CONS, n. 137/11/CONS. To date, the Authority has imposed to each carrier the minimum fine requested by the law, equal to 58.000 €.

Office of Information and Regulatory Affairs (*i.e.* accessibility, machine readability, standardization, timeliness and privacy protection)¹¹.

In February 2010, the Communication Authority granted its first approval to the search engine SuperMoney (www.supermoney.eu). Until October 2012 the website used to offer a specific service named “Check-up rates” that allowed consumers to upload their mobile phone bill in order to discover the total cost charged by other competitors for the same usage pattern. However, only a few providers issue their monthly bill in a uniform electronic format that could interface with the on-line software. Although AGCoM provision forces providers to organize usage information in standard interoperable formats, such a format has not been set yet. For this reason, as of October 2012 the upload service has been replaced with another option. Consumers should send their file by email to the SuperMoney postmaster: data will be processed individually, the procedure usually takes no longer than a couple of days, and the postmaster will reply suggesting to the applicants which are the cheapest providers.

This kind of comparison is fairly accurate but requires customers to have at their disposal the electronic monthly bill. As an alternative, SuperMoney offers another service: when using the website consumers will be asked to answer some questions with the aim of identifying and classifying their habits into a standard usage profile. Subsequently, the comparison will be based on this profile, helping users to identify the mobile plan that best matches their needs. Once tested, the comparison turns out to be effective (although not perfectly accurate) showing that real usage data are not strictly required for the RECAP model to work.

Although there is still a long way ahead before SuperMoney (and hopefully others comparison websites that will be authorized in the future) will be able to work at their best, such search engine represents a sort of revolution within the Italian consumer protection law, because it truly puts the consumer at the centre of the regulatory framework. It offers an independent service, because its business model is only based

¹¹ See the Memorandum for the Heads of Executive Departments and Agencies *Informing Consumers through Smart Disclosure*, issued by the Office of Regulatory Affairs on September 8, 2011. The document is available at:

<http://www.whitehouse.gov/sites/default/files/omb/inforeg/for-agencies/informing-consumers-through-smart-disclosure.pdf>.

on advertising revenues: no brokerage is paid by service providers. In a nutshell, it constitutes a true expression of RECAP-style regulation.

After three years of activity SuperMoney seems to be fairly known and used. It is currently able to process data from over 2.500 different mobile plans and every month more than 300.000 customers' accesses have been registered.

These data show that consumers are conscious of their poor sense of consumption patterns and are trying to address their biases. On their side, it has to be considered that mobile phone carriers are aware of such a poor sense and are looking to exploit it along with the so called «pain of paying» (Ariely, 2013), offering more contracts based on fixed monthly fee than contracts based on the real consumption (Bar-Gill and Stone, 2012).

This is the reason why the RECAP model plays a key role in the consumer protection framework: the more empowered on their behavioral patterns users are, the more the market imbalance is reversed.

3. From registered preferences to «revealed» preferences. Can a RECAP-style regulation work without real usage data?

As noted in the previous paragraph, search engines can also offer their services without processing real usage data. Indeed, the comparison can be done adopting a standard usage profile as a benchmark. A comparison based on standard usage pattern can be extremely useful when the product/service under scrutiny is purchased *una tantum* and not repeatedly.

Consider for example the mortgages market. It is clear that customers interested in this product do not have usage data to analyze prior to the purchase. In this case, the preferences that customers can «reveal» when taking a consumption decision play a key role. When designing a RECAP-style model for one-time purchases, it becomes crucial for the policymaker to promote comparison websites that allow consumers to express their usage preferences. For example, the website can provide a survey to the users trying to identify their usage needs. The search engine will be able to reach a twofold goal: *i*) to reveal what the consumers' preferences are; and in this way *ii*) to compare

products using personal preferences as benchmarks. Going back to the mortgages example, it is worth considering how the RECAP approach has been enforced in the United Kingdom. In particular, the independent body promoted by the Financial Services Authority and named Money Advice Service (MAS)¹² (<http://moneyadviceservice.org.uk>) collects and organizes data on all mortgages offered within the UK market. Consumers interested in buying the most suitable product can access the MAS web page and answer some questions, specifically designed to discover what kind of mortgage they need¹³. At the first access a short note appears with the following statement: « Our comparison tables are completely unbiased and cover the whole mortgage market - we are set up by government and don't receive any incentive or commission if you go on to choose a product ». Once the survey is concluded, a comparison table will appear ranking all the products distributed in the market, sorted by the price (: the initial rate), although users are also able to manage different ranking criteria.

Within the Italian mortgages market, a different approach has been adopted: consumer protection is almost totally based on duties of disclosure product attribute information and duties to engage in a fair negotiation. What lacks is a comparative website promoted or managed by an independent Authority. The reason rests on the Italian legal framework: in the absence of a specific law that grants supervising Authorities the power to force firms to publicly disclose their price data, there is no room to implement a real RECAP regulation.

Concerning this point, the Italian energy market regulation should be also considered. In the lack of the aforementioned power, the regulatory Authority for Electricity and Gas (Autorità per l'Energia Elettrica e il Gas, hereinafter AEEG) is not able to implement a complete dataset, based on the fee charged by electricity and gas suppliers within the market. However, in 2008 AEEG committed itself to establishing an on-line comparison software, for which data are disclosed by firms on a voluntary basis. The search engine (named «TrovaOfferte») started working in April 2009 for the

¹² The Money Advice Service has been promoted by the Financial Services Authority according to the *Financial Services and Markets Act 2000*, as recently emended by the *Financial Services Act 2010*. Previously it was named Consumer Financial Education Body.

¹³ The service is available at: <https://compare.moneyadviceservice.org.uk/mortgages/Step1>.

retail electricity market and as of April 2010 for the retail gas market, promptly becoming a useful tool for consumers¹⁴. Since the first day of activity, it has had an average of 1.300 daily accesses, totaling about 950.000 accesses as of April 2011. Such data does not seem irrelevant, since it clearly points to a strong interest expressed by consumers in empowering their decision making. The «TrovaOfferte» enables customers to detect the cheapest fare in their local market (generally regional) using their annual gas/electricity consumption as a benchmark¹⁵. On the operational side, it should be noted that users are asked to acquire, by themselves, data on their average annual consumption. Unfortunately, in the energy sector there is no legal provision that can force firms to issue their bill in the electronic format necessary to interface with the website. Thus, although the «TrovaOfferte» represents a useful and independent comparison tool, it is still not as effective as a real RECAP-website would be.

However, at a closer look, the inner limit does not depend on the absence of an electronic bill (looking at past paper bills, data on annual consumption are not difficult to assess) but on the voluntary basis that links suppliers to the software database.

As noted when discussing the mobile phone market, an effective regulation requires the comparison website to collect a comprehensive set of information on each price available in the market.

Nonetheless, the energy sector example is useful to highlight that *i*) the general legal framework (and the power granted to the supervisory Authorities) strongly affects the comparison effectiveness; *ii*) an independent search engine can produce sizable benefits for consumers not only when processing real usage data but also when using users' preferences or standard usage profile as a benchmark. Undoubtedly, RECAP regulation allows a much more accurate prediction about customers' future consumption than its derivative does. Indeed, many contributions have highlighted that some biases can affect the auto-evaluation of future usage habits. A research focused on the mobile market (Bar-Gill and Stone, 2009; Bar-Gill and Stone, 2012) has empirically proved

¹⁴ The search engine is available at: <http://trovaofferte.autorita.energia.it/trovaofferte/TKStart.do>.

¹⁵ The approach is quite similar to the one implemented in the UK energy market, where the Consumer Focus (a statutory consumer organisation) run the «Energy Price Comparison Tool». This search engine uses information on the annual average consumption or on the monthly average expenses as a benchmark; see <http://energyapps.consumerfocus.org.uk/price>.

how widespread consumers' misperception on future usage can be: adopting a broad data set of subscriber-level monthly billing of 3,730 customers, the research showed that over 65% of them chose an unsuitable plan.

Given the above, it is necessary to observe that a model based on consumption preferences gives consumers the chance to sizably improve their decision making under specific circumstances, *i.e.* when: *i*) users are likely to easily predict their future usage (think about the Italian electricity/gas market); and *ii*) past consumption data are not available or the legal framework does not allow the RECAP model to work.

4. More opportunities to benefit from the «product-use information»

Having discussed the key role played by product-use information in the RECAP model, it is worth considering other options for exploiting the benefits produced by such information. As first example, consumer protection law could be designed to inform customers when their consumption behaviour is unusually risky. For example, as proposed in the U.S. debate (Mann, 2006), the credit card regulation ought to force issuers to inform consumers, through merchants, when a purchase takes them over their credit limit. In the same way, financial intermediaries could alert their customers via text messages advising and signalling to them their unusual or excessive consumption patterns. A similar idea has been pointed out (Bar-Gill and Board, 2012) with respect to the mobile phone market:

To reduce the incidence of inadvertently exceeding the plan limit and thus incurring high overage fees, sellers could be required to notify consumers, via a recorded message or a text message, when they are about to exceed the plan limit.

Looking at the Italian mobile market, one could come across a similar provision aimed at informing consumers of their use-pattern mistakes. Indeed, in 2010 the communication Authority requested cell-phone providers to set up a specific warning-system in order to notify customers via text messages of their unusually intense

bandwidth usage. Such a provision is intended to protect customers from the so called «bill-shock» phenomenon.

A second example of product use disclosure has been recently suggested. The idea is to force firms to disclose a single figure, named Total Cost of Ownership (TCO). It summarizes the actual costs paid by customers over a fixed period of time --usually a year-- for a specific product or service (Bar-Gill, 2012; Bar-Gill and Ferrari, 2010). Such a figure combines both attribute and use information, since it depends on product pricing structure and consumers' usage pattern. This approach could be usefully adopted over a broad range of domains. For instance, in the mobile phone market carriers would be requested to inform: *i*) their prospective customers about the average-cost paid by present customers for each tariff offered; and *ii*) their existing customers about the total cost yearly charged (Bar-Gill and Stone, 2012). In this way, subscribers can clearly understand how their individual-use affected the total cost incurred; it can also help them to better predict their future habits.

Looking for current law that embodies this proposal, one could point out that within the Italian banking market a specific provision is devoted to protecting consumers through the TCO disclosure. Before opening a bank account, consumers use to acquire pre-contractual information among different competitors. For each account offered, banks should report in their pre-contractual documents a figure that expresses the total annual cost charged for a few standard usage profiles. To be more specific, when the account has a two-part tariff (composed of a monthly fixed charge and a pay-as-you-go charge), banks should report the total annual cost they charge for six different standard usage profiles. Such profiles are thoroughly defined by the Bank of Italy's regulation and they range from a very low to an intensive usage.

Once the contract is signed, banks should yearly disclose to consumers the total annual cost they actually incurred. As already noted, the underlying insight is to help users make a better prediction of their future usage, in order to choose the offer better suited to their need.

Lastly, an average-use disclosure can also be proposed. Pay attention to the following case. When joining the gym consumers usually prefer to go for a monthly subscription instead of a per-visit payment. Indeed, they usually think that they will regularly train. Thus, the monthly subscription appears cheaper than the per-visit

charge. Unfortunately, such a thought turns out to be often affected by the optimism bias and a low attendance can make the total cost incurred very high. Hence, if consumers were informed about their average attendance (or about an average-subscriber attendance), they could better assess the subscription option versus the pay-per-visit option (Bar-Gill and Board, 2012; Della Vigna and Malmendier, 2006).

5. Conclusion

In standard models with asymmetric information, non-professional parties are assumed to have poor information on product characteristics and valuable information on their own characteristics (*i.e.* their consumption-pattern). Challenging this assumption, scholars in law and economics have begun to consider the opportunity to design a novel form of consumer protection regulation, named RECAP. Such a regulation is based on a basic concept: consumers can be protected if companies are forced to disclose data on the customers' consumption history through electronic files. In order to foster an active utilization of product-use information, the model also requires independent comparison websites to exist. Hence, users are able to upload their files in the website; this will process the consumption data, and show customers what prices would be charged by different competitors for the same product (or service) usage.

Given the above, a quick look at one real RECAP regulation turns out to be useful for discussing the theoretical model and analyzing what form the website can take. As previously noted considering the Italian mobile market legislation, for making an effective comparison it is essential that the search engine can: *i*) map and record all the existing rates; and *ii*) offer an independent service.

Concerning the first point, the legal framework should include a specific provision that forces providers to inform the comparison website of any rate applied. With the lack of mandatory directives, firms could have poor incentive to voluntarily enrich the website dataset. In addition, it could be extremely difficult for the search engine to gather all the existing information on its own: in some domains there is a massive amount of different tariffs. Consider, for example, the Italian cell-phone market, where

the SuperMoney website is currently managing over 150.000 combinations of mobile plans and discount options.

Concerning the second point, the website should be promoted or run by an independent body or by the administrative authority that supervises the market.

In summary, a bare bones RECAP model has to combine all these features in order to be effective.

Discussing RECAP regulation, it should be stressed that such approach can deeply affect consumer protection law, as we usually intend it. Releasing consumption data in a machine readable format can lead to avoid a regulation that forces companies to thoroughly disclose products characteristics (BIS, 2012).

Carrying on the analysis, evidence has been found of a new form of regulation that comes from RECAP. Such a model is intended to work by helping consumers when no usage history is available. Think of the one-time purchased products like credit protection insurances or mortgages: in these cases speaking of consumption data is technically incorrect. This time a key role is played by consumers' preferences, more than by product-use information. The basic idea of RECAP can still work, but the website should allow consumers to express their usage preferences. For example, the users could be asked to answer some questions as they connect to the website, in order to unveil their consumption preferences; the comparison process will then be managed using standard usage profile. However, since consumers sometime have a poor sense of their future usage, this specific approach is recommended when consumers' prediction can be fairly accurate (like in the Italian energy sector).

Lastly, one more model can be developed. Regulators can design simple disclosures that combine both attribute and use information. The idea is to force firms to disclose a single figure named Total Cost of Ownership (TCO) that summarizes the costs paid by an average customer over a specific period for a product or service. At the same time, companies should disclose to their customers the actual TCO they incurred for the same period.

Faced with such information consumers can better asses what their future usage pattern will be; they can also consider the opportunity to switch company or subscription.

Thanks to these novel legislative approaches, consumers will not be allowed to simply complain for their professional counterparties who are often deemed unfair and not transparent. Firstly, customers are asked to act, in order to redress the imbalance; afterwards, if anything, they can complain before a judge.

References

- Ayres I. (2007), “Super Crunchers: Why Thinking-By-Numbers is the New Way To Be Smart”, Bantam Books.
- Ariely D. (2013), “The Pain of Paying. The Psychology of Money”, Duke University, Fuqua School of Business Conversation, January 14, 2013, available at: <http://blogs.fuqua.duke.edu/facultyconversations/2013/01/14/dan-ariely/>.
- Bar-Gill O. (2012), *Seduction by Contract. Law, Economics, and Psychology in Consumer Market*, Oxford University Press.
- Bar-Gill O., Stone R. (2012), “Pricing Misperception: Explaining Pricing Structure in the Cell Phone Market”, 9 *Journal of Empirical Legal Studies*, 430 – 456.
- Bar-Gill O., Board O. (2012), “Product-use information and the Limits of Voluntary Disclosure”, 14 *American Law and Economics Review*, 235 – 270.
- Bar-Gill O. (2011), “Competition and Consumer Protection: a Behavioral Economics Account”, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1974499##
- Bar-Gill O., Ferrari F. (2010), “Informing Consumers About Themselves”, 3 *Erasmus Law Review*, 93 – 119.
- Bar-Gill O., Stone R. (2009), “Mobile Misperception”, 23 *Harvard Journal of Law & Technology*, 49 – 118.
- Della Vigna S., Malmendier U. (2006), “Paying Not to Go to the Gym” 96 *American Economic Review*, 694 – 719.
- Department for Business Innovation & Skills (BIS) (2012), “Midata 2012. Review and consultation”, released July 26, 2012. London.
- European Commission (EC) (2009), “Commission Staff Working Document. Guidance on the Implementation/Application of Directive 2005/29/EC on Unfair Commercial

- Practices”, released December 3rd, 2009. Brussels. Document available at: http://ec.europa.eu/consumers/rights/docs/Guidance_UCP_Directive_en.pdf.
- Executive Office of the President National Science and Technology Council (2013), *Smart Disclosure and Consumer Decision Making: Report of the Task Force on Smart Disclosure*, released May 30th, 2013, Washington D.C.
- Gamper H.C. (2012), “How Can Internet Comparison Sites Work Optimally for Consumers?”, 35 *Journal of Consumer Policy*, 333 – 353.
- Italian National Institute of Statistics (2012), “Citizens and new technologies”, released December 20th, 2012, Rome. Document available at: <http://www.istat.it/it/archivio/78166>.
- Jolls C., Sunstein C.R., Thaler R. (1998), “A Behavioral Approach to Law and Economics”, 50 *Stanford Law Review*, 1471 – 1546.
- Kamenica E., Mullainathan S., Thaler R. (2011), “Helping Consumers Know Themselves”, 101 *American Economic Review*, 417 – 422.
- Kronman A. (1978), “Mistake Disclosure, Information, and the Law of Contracts”, 7 *Journal of Legal Studies*, 1 – 34.
- Mann R. (2006), “Charging Ahead: The Growth and Regulation of Payment Card Markets”, New York, Cambridge University Press.
- Office of Information and Regulatory Affairs (OIRA) (2011), *Memorandum for the Heads of Executive Departments and Agencies. Informing Consumers through Smart Disclosure*, released on September 8, 2011. Washington, DC.
- O’Reilly T. (2012), “Some Context for Thinking About the Future of Smart Disclosure”, presentation given at *Smart Disclosure Summit*, March 30, 2012. Washington, DC.
- Shafir E. (2013), “The Behavioral Foundations of Public Policy”, Princeton University Press.
- Sunstein, C.R. (2011) “Empirically Informed Regulation”, 78 *University of Chicago Law Review*, 1349 – 1429.
- Thaler R., Tucker W. (2013), “Smarter Information, Smarter Consumers”, 1 *Harvard Business Review*, available at <http://hbr.org/2013/01/smarter-information-smarter-consumers/ar/1>.

Thaler R., “A Chance to Make Mortgage Shopping Easier”, *New York Times*, August 18, 2012.

Thaler R., Sunstein C.R., Balz J. (2010), “Choice Architecture”, available at:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1583509.

Thaler R., Sunstein C.R. (2008), “Nudge. Improving Decision About Health, Wealth, and Happiness”, Yale University Press.

Thaler R., Sunstein C.R. (2003), “Libertarian Paternalism”, *American Economic Review*, 2003, 93, 175 – 79.