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| Confident,  but confounded | | |
| Consumer Comprehension of Telecommunications Agreements |
| **Dr Paul Harrison, Laura Hill and Charles Gray** | | |
| **September, 2016** | | |

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 **accan logo**“Confident, but Confounded: Consumer Comprehension of Telecommunications Agreements”

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# Foreword

ACCAN has identified the need for independent empirical evidence to reveal the extent to which consumers understand the information provided to them by telecommunications providers and factors that influence comprehension both at the time of entering a contract and further down the track.

ACCAN originally approached Dr Paul Harrison and Deakin University in 2014 to conduct research to inform our engagement with the telecommunications industry’s Customer Information Obligations Framework[[1]](#footnote-1), designed as a roadmap for reviewing industry regulatory obligations to provide specific information to customers. We were aware that important consumer protections could be lost in the absence of an independent evidence based approach, to the detriment of both industry and its customers.

Consumer information is fundamentally important, but must be designed so that customers can understand what they are buying, how to use their service and constructively solve future issues that may arise. This is particularly the case in the essential but complex area of telecommunications.

This research will guide ACCAN’s constructive contribution to future reviews of telecommunications industry customer information obligations, at a time when significant structural changes in the telecommunications market mean that consumers will be offered greater choice of retail providers and services. It is hoped this research will also be of value to regulators and policy makers, and lead to better outcomes overall.

Many thanks to all who contributed to the research, including the research team, participants, Katrina Pavlidis and Jax Arnold for their contributions.

*Una Lawrence, ACCAN*

# Executive summary

Consumer wellbeing in relation to contractual agreements is founded on a basic principal of informed consent. Informed consent is usually ascertained by directly asking consumers, by means of a contract or agreement, whether they understand their obligations and rights under a contract. While this is testing the reflective capacity of consumers in relation to their belief that they have understood something, it is arguable that it is not actually measuring whether the consumer has actually understood the agreement. In other words, a person may claim to understand the implications of their signing a contract, but may fail to appreciate the possible consequences until they are presented with a particular challenge arising from or related to the terms of the contract.

Understanding the terms and conditions of a contract has also been repeatedly argued to be beneficial to the consumer. Policy makers, business, legal bodies, and economists contend that comprehending terms and conditions before embarking upon a service is necessary to avoid "unfair surprise, fraud, and collusion", especially in new "high-tech markets" such as telecommunications.

Having access to an appropriate amount of information, that consumers understand and are able to process in the context of the agreement protects consumers from suboptimal outcomes where they may be forced to make purchase decisions based on peripheral information, like a company's reputation or brand and price signals. However, there is significant evidence to suggest that consumers often do not adequately understand the contents of contracts, should they read them at all.

Amongst other things, we already know that consumers do not, or barely, read contracts upon purchase (ex ante). The reasons for this are many and varied and include that consumers have no choice but to accept if they wanted the underlying product, that they are too long and time consuming, that they are full of legal jargon, that they are all the same, that the level of detail in agreements are mostly irrelevant, and that vendors are usually reputable.

In the context of telecommunications, the industry has indicated long standing desire for more flexibility with fewer restrictions in the information provided on a mandatory basis to consumers, arguing that information should be provided as consumers require it. It has been contended that current mandatory consumer information requirements, particularly in terms of the amount of information that must be provided at point-of-sale, are not necessarily useful to consumers and result in substantial cost to the industry.

In this research, we sought to investigate consumer comprehension of telecommunications agreements, not by asking consumers whether they understood their agreements, which is the standard practice for achieving informed consent, but by testing whether consumers did understand their agreements, through a knowledge test. We found that while, in general, consumers displayed confidence in their self-assessed ability to understand telecommunications agreements, only a very small proportion were able to demonstrate adequate understanding of the standard operations and potential problems arising from telecommunications agreements.

Indeed, through our empirical research and knowledge test, we found that there was a negative relationship between self-assessed understanding and correct answer, that there was a positive relationship between those who rated the information as relevant to their needs and correct answers, that people with vocational qualifications did worse than all other educational levels, and that people whose first language is not English did worse than others.

We also found that different key stakeholders underestimated and overestimated the capacity of consumers to solve every day telecommunications problems. We found that, on average, regulators had the most realistic expectations of consumers’ understanding of their agreements, while consumer advocates underestimated, and telecommunications representatives overestimated consumer capacity to understand their agreements.

All of these findings and more are noted in the following pages.

Arising out of this research, we recommend the following:

**Recommendation 1**: As part of its current research on the operation of the TCP Code since the [Reconnecting the Customer Inquiry](http://www.acma.gov.au/Industry/Telco/Reconnecting-the-customer/Public-inquiry/final-report-reconnecting-the-customer-acma)[[2]](#footnote-2), the ACMA should include an evaluation of the CIS to determine the extent to which they assist consumers to understand the key features of their agreement.

**Recommendation 2**: Telecommunications retailers should ensure that plans and market offers are kept as simple as possible with clear elementary features that their customers can easily understand.

**Recommendation 3:** In order to promote better understanding of telecommunications contracts, more work is required by the industry to understand consumer needs during the sale transaction and lifecycle of a contract, and to tailor the time delivery of core information for maximum comprehensibility.

**Recommendation 4**: It is recommended that telecommunications retailers adopt a proactive strategy by conducting follow up courtesy contact with new customers after three billing cycles to see if the customer needs further assistance in understanding their obligations.

**Recommendation 5:** Despite the small sample size, this research finds a need for expert independent research to provide an evidence base when introducing or reviewing customer information obligations, to reduce the risk of inaccurate presumptions about consumer behavior informing regulatory obligations.

# Introduction

The Australian telecommunications industry has indicated a long standing desire for more flexibility with fewer restrictions in the information provided on a mandatory basis to consumers. It has been contended that current mandatory consumer information requirements, particularly in terms of the amount of information that must be provided at point-of-sale, are not necessarily useful to consumers and result in substantial cost to the industry.

Constantiou (2009, p. 3) argues that consumers of telecommunications services have "matured in terms of experiences and knowledge about available technologies, due to their exposure to many technological solutions during the last decade". Consequently, it may be that consumers have sufficient general knowledge pertaining to their rights and the average terms and conditions of their contract so as to negate their need to receive specific information up front. Moreover, many studies have shown that presenting too much information to consumers at once can lead to 'information overload' and reduce comprehension and retention (Amoriggi 2007; Hillman 2006a; Hillman & Rachlinski 2002; Leong, Ewing & Pitt 2002; Xavier 2008).

However, before implementing any significant changes to the way in which consumers receive their telecommunications contract information it is necessary to ensure that any changes to consumer protections are supported by contemporary and relevant empirical research. Although various studies have been undertaken on consumer comprehension of non-telecommunications purchase contracts, other types of standard form contracts, product instructions, health information and other consumer-related written material; no study has specifically examined the degree to which Australian consumers comprehend the information contained in their telecommunications contracts, nor the degree to which their general knowledge may be a sufficient substitute. Such a study is therefore necessary to fully substantiate the industry's assertions regarding the Australian consumer and to properly inform the revision and application of the Communications Alliance Customer Information Obligations Framework.

Moreover, studies to date have mainly tested participants’ comprehension immediately after reading the information, neglecting to study the information’s retention in long-term memory and how these memories might influence future behaviour. The purpose of this study, therefore, is to empirically examine the accuracy with which consumers comprehend and retain information provided in telecommunications contracts.

# Overview of previous research

This review will examine the existing research on the comprehension of contracts and other written material, as well as consumer behaviour within the telecommunications industry. It will then discuss various methodologies employed by a number of similar studies in order to develop an appropriate methodology for this study.

## The importance of comprehending telecommunications contracts terms and conditions

Legal literature indicates that standard form contracts, such as those used in telecommunications, provide clear benefits to businesses. Through the existence of judicially enforceable contract terms, businesses can reduce costs that might otherwise be associated with bargaining (Hillman & Rachlinski 2002) and pass certain risks onto the consumer (Broome & Hayes 1997).

Understanding the terms and conditions of a contract has also been repeatedly argued to be beneficial to the consumer. Policy makers, businesses, legal bodies, and economists contend that as well as enabling consumers to pass on certain risks to the seller, contracts prevent businesses from exploiting consumers (Broome & Hayes 1997; Hillman & Rachlinski 2002; Slawson 1971). Epstein (2006, p. 208) argues that comprehending terms and conditions before embarking upon a service is necessary to avoid "unfair surprise, fraud, and collusion", especially in new "high-tech markets" such as telecommunications. Xavier (2008) suggested that having too little or inconsistent quality can lead to consumers paying too much, buying the wrong product or service, being disappointed with the product or service or failing to participate in the market at all due to limited awareness of offerings. Other researchers similarly explain that having access to an appropriate amount of information protects consumers from suboptimal outcomes where they may be forced to make purchase decisions based on peripheral information, like a company's reputation and price signals (Hillman & Rachlinski 2002; Stark & Joplin 2010).

Yet these presumed consumer benefits rely on consumers’ comprehension of the contents and operation of a contract. However, there is significant evidence to suggest that consumers often do not adequately understand the contents of contracts, should they read them at all.

## Consumers tend not to read contracts initially (ex ante)

Studies have shown that consumers predominantly do not read standard form contracts presented at the time of purchase, but sign them regardless. This is despite warnings to the contrary, and potential legal sanctions. For example, in Becher’s and Unger-Avirams (2010) study, only eight per cent, 19 per cent and 25 per cent of participants respectively read a bank account, car rental or laundry contract prior to commencing the service – ex ante[[3]](#footnote-3). Significantly, the smallest percentage of participants in this study read the bank account contract, which may be similar in style and consequence to a telecommunications agreement.

Studies involving online contracts that require website terms and conditions to be accepted have yielded similar results. In Plaut & Bartlett's (2012, p. 297) study, over 80 per cent of participants reported "not reading at all" or not "really reading" click through agreements (CTAs). Bakows, Marotta-Wurgler and Trossen (2009) similarly found that only one or two in 1000 potential software buyers accessed the online licence agreement for at least one second; and only 4 per cent of legal students in Hillman's (2006b) study claimed to read e-purchase contracts as a matter of course (44 per cent did not read them under any circumstances).

A traditionally upheld theory is that despite the majority of consumers not reading contracts, the existence of an informed minority who do read them will ensure sellers cannot offer one-sided terms or risk losing out in a competitive market (Salop & Stiglitz 1977; Schwartz & Wilde 1979). Yet Gillette (2004, p. 32) explains that a reading minority is insufficient to represent the non-reading majority due to possibly having "very different preferences" and dealings with vendors.

Moreover, the very small number of participants who read the contracts in Bakows, Marotta-Wurgler's and Trossen's (2009) study, for example, appears to debunk this notion. As Hillman & Rachlinksi (2002) explain, if the number of savvy consumers is too small it may not be worthwhile to compete for their custom.

Pertinently, the problem presented by the low number of consumers actually reading contracts is well-known within the judicial system. Consequently, Llewellyn (1960) introduced the notion of 'blanket assent' that currently dominates contract law (including the 2011 Australian Consumer Law), i.e., if a contract is presented formally and has reasonable substance, consumers are assumed to agree to be bound by the broad type of transaction, as well as any reasonable and decent terms included on the form that do not alter the transaction's main meaning.

Accordingly, unread fine print cannot undercut the reasonable meaning of the main contract terms (Green 2013; Meiklejohn 1994). Gillette (2004, p. 680) explains: "because the recipient of terms cannot reasonably be expected to negotiate, review, or fully comprehend [standard form contracts] that are drafted by more sophisticated and self-interested sellers, the effectiveness of alleged contract terms becomes a matter for judicial scrutiny". This same concept appears in the Australian Consumer Law (Competition and Consumer Act 2010 (Cth) sch 2), under which a term of a standard form consumer contract is deemed to be void if it is “unfair”, regardless of the consumer’s acceptance of the contract. An unfair term may include one that is not “expressed in reasonably plain language” and “presented clearly”, but may also include a term that unfairly disadvantages one party in some way.

## Reasons most consumers do not read contracts

Research consistently reveals several reasons consumers do not, or barely, read contracts upon purchase (ex ante). These include that they are too long and time consuming (Becher & Zarsky 2008; Plaut & Bartlett 2012), that they are full of legal jargon (Becher and Zarsky 2008; Masson & Waldron 1994; Wright 1971), that they are all the same (Epstein 2006), that they are irrelevant (Plaut & Bartlett 2012), that consumers have no choice but to accept if they wanted the underlying product (Hillman & Rachlinski 2002; Rakoff 1983), and that vendors are usually reputable (Gillette 2004; Katz 1998; Stark & Joplin 2010).

The latter two reasons in particular pertain to a rational tendency to equate low probability risks with zero probability risks; as well as to use heuristics, or processes and hunches that simplify decision making, such as positive confirmation bias (Hillman 2006a; Hillman & Rachlinski 2002; Goldstein & Gigerenzer 2002; Stark & Joplin 2010). There are also often social norms and signals not to read the contract, such as the expectation to sign the form and “keep moving” (Hillman & Rachlinski 2002; Stark & Joplin 2010). Ultimately, as Gillette (2004, p. 680) explains, "failure to read may be perfectly rational, especially given the inability to negotiate around terms, if the buyer accurately predicts that the costs of review exceed its benefits".

Consumers have, however, been shown to be more inclined to read contracts ex ante when a few conditions are met:

* The product or service cost is significant,
* The contract is perceived as short,
* There is a perceived likelihood of changing or influencing contract terms, and,
* The contract contains terms that are different from expected (Bechter & Unger-Aviram 2010).

Accordingly, Plaut & Bartlett (2012) found that consumers could be enticed to read a CTA if it were presented in a manner that suggested these conditions were met.

## Consumers are more likely to read a contract when an issue arises (ex post)

In contrast to the low readership of standard form contracts prior to signing them, a much larger number of consumers have been found to read them once an issue arises that needs to be addressed (ex post). Becher & Unger-Aviram (2010) found that the number of participants who read the contract ex post, but not ex ante, more than doubled for the car rental contract, almost tripled for the laundry contract and rose nearly seven times for the bank account contract. The top three reasons consumers were motivated to read the contract ex poste were:

1. The cost of the transaction,
2. The opportunity to learn, and,
3. The opportunity to change or improve contract terms (Becher & Unger-Aviram 2010).

Becher and Zarsky (2008) similarly found that consumers often review, and indeed read properly for the first time, contracts ex post to acquaint themselves with their rights and obligations. The relevant situations are where the product or service did not meet the consumer’s expectations; for example, the product or service was not as the vendor represented it to be; or the product arrived late or damaged, or malfunctioned. Often consumers do not directly associate their complaint with a breach of a standardised term they “supposedly agreed to” when originally signing the contract (p. 315), but equate it with other matters they were not made aware of at the time of agreement.

Pertinently, Becher and Zarsky explain that comprehension is likely to be greater for consumers reading ex post. Consumers reading ex post are not “prone to many of the cognitive errors and biases” that normally plague the ex ante consumer (2008, p. 316). As the breach or dispute has already occurred, consumers are better able to attend to the originally “non-salient” but now relevant terms of the contract in dealing with the situation, free from the initial vendor pressure to read and sign quickly.

Despite ex post reading resulting in greater consumer comprehension, the consumer must deal with an arisen situation without the benefit of preventative measures or of being able to negotiate terms. As Becher and Zarsky explain, “late recognition of flaws in contracts they previously entered into will not change the terms of the contract between the parties” (2008, p. 316).

Becher and Zarsky (2008, p. 320) consequently advocate for a greater flow of information from those who have already purchased the product or service (ex post) to those who have not yet signed the contract (ex ante) via online reviewing and social media, for example; contending that the reading costs of such a process for the ex ante consumer are “substantially lower than directly confronting the standard form contract terms”. However, consumers often base such reviews on product attributes rather than on the specifics of contract terms, limiting the efficacy of such media for this purpose (Becher & Tarsky 2008; Chari 2010). Moreover, the rapidity with which new telecommunications contract plans and schemes are introduced would further limit the effectiveness of relying on this kind of review-based information scheme (Xavier 2008).

## The complexity of telecommunications contracts

The complexity of standard form contracts is a particular barrier to readership. Cogan (2010) examined in depth the complexity of health insurance contracts and determined that they were constructed in language that was too difficult to understand by consumers and were written for the benefit of the insurer rather than the consumer. Rameezdeen & Rodrigo (2013) similarly found that university level reading skills or better were needed to comprehend half the clauses in a standard form contract used in the construction industry. These studies support previous research that has come to similar conclusions (Davis et al. 1996; Stark & Choplin, 2010; Wright 1981). Moreover, Stark and Choplin (2010, p. 89) contend that consumers lack "contractual schemas or knowledge structures", and often have "inaccurate default assumptions of how contractual provisions are likely to be structured and whether the terms can be negotiated"; exacerbating their complexity.

Furthermore, telecommunications contracts have particular complexities that render them especially difficult for consumers to read, understand and make good choices regarding their content. The complex range of tariff structures and discount schemes; an intangible and unpredictable range of communicants; the pace of technological advancement; the continual changing of immediate telecommunication experiences and the multiplying effect of these four in combination force the consumer to make complex, multidimensional value judgements which are difficult, if not impossible (Lunn 2013; Xavier 2 008). Further, consumers often fail to accurately anticipate their telecommunications service usage due to overconfidence bias and procrastination inertia (Bar-Grill & Stone 2009; DellaVigna 2009; Lambrecht & Skiera 2006; Lunn 2013).

## Low switching behaviour suggests complexity

The relatively low switching behaviour demonstrated by telecommunications consumers compared with other similar industries, despite relatively low financial switching costs (Ofcom 2010; Xavier & Ypsilanti 2008), indicates the particular complexities involved in the telecommunications agreement (Klemperer 1987; Lunn 2013). Lunn (2013) found that the majority of consumers of telecommunications services do not even consider switching provider over a one year period; and that the most important factors were transaction costs, or the time and effort required to complete the initial administrative process; and learning costs, which entailed the time and effort required to research other products and to learn to exploit brand-specific attributes. These findings are unsurprising considering the difficulty consumers have in making decisions that require balancing many different factors (Arkes, Dawes and Christensen 1986; Harrison, Robertson and McQuilken 2012).

Other psychological factors, including the 'endowment effect', the ‘status quo bias' and 'ambiguity aversion' are also likely to play a part in this low switching behaviour (Ellsberg 1961; Samuelson & Zeckhauser 1988; Stark & Joplin 2010). However, the endowment effect – whereby consumers are likely to more highly value a good they already own than one they do not – has been shown to be exacerbated when consumers are relatively more uncertain about the relative value of offerings than in other industries – as in the telecommunications industry, due especially to the aforementioned complexities (Chatterjee, Inder & O'Brien 2003; Irmak & Rose 2013; Lunn 2013).

The low switching behaviour demonstrated by telecommunications consumers due to the inherent complexities and value judgements required, as well as the frequency with which consumers make bad decisions in this market, highlights the importance of consumers fully understanding the terms and conditions surrounding their telecommunications contracts. It also elucidates the particular complexities inherent in this particular type of contract.

## The effect of information characteristics on written information comprehension

Multiple characteristics of written information have been shown through various studies to influence consumers' ability to comprehend it. The amount and type, language, format and structure of the information have all been shown to significantly impact reader comprehension.

### Amount of information

Studies have indicated that presenting too much information to consumers at once can cause 'information overload', preventing them from properly comprehending it (Amoriggi 2007; Hillman 2006a; Leong, Ewing & Pitt 2002). Consumer attention is limited, such that an excess of information diminishes the attention consumers are able to pay to extra information (Xavier 2008). Similarly, a 2007 study by The UK Better Regulation Executive and National Council examined comprehension of real examples of regulated consumer information; including safety warnings, information on extended warranties and credit card agreements; and found that consumers often rejected much of the information because there was too much of it. Conversely, in a contrasting but narrower study, the amount of information provided was not a significant factor in comprehension of consumers choosing a hospital (Zwijnenberg et al. 2012).

Several theorists have additionally discovered that having too much prior knowledge can actually hamper comprehension. This will be discussed in the below section entitled ‘prior knowledge’.

### Type of information

The type of information presented has been shown to influence comprehension. For example, explanative information – or facts connected by explanation of the relationships between them – is more comprehensible than isolated facts presented with no such explanation (Lim & Benbasat 2002). In Moorman's (1990) study, information on possible negative consequences was utilised more effectively than information on positive consequences; and consequence-related information was generally processed more easily than non-consequence information - due to arousing greater motivation in the consumer to comprehend it - but with no effect on comprehension accuracy (Moorman 1990). Further, Kaphingst's, Rudd's, Dejong's and Daltroy's (2005) study on the comprehension of medication advertisements saw 76 per cent of participants correctly answer questions about medication benefits but only 26 per cent correctly answer a question about side effects.

### Language

Various studies have shown that contracts that had been written in plain language are more comprehensible to consumers than those written in legal jargon (Barnes 2010; Chapanis 1965; Houghton 1968; Masson & Waldron 1994; Stolle 1998). However, other theorists have argued that the specific, legal narrative that needs to be conveyed in a standard form contract necessitates specific language such that completely 'plain language' may remove appropriate nuance and not suit this purpose (Barnes 2010; Broome & Hayes 1997; Kimble 1994; Rameezdeen & Rodrigo 2013). Additionally, Fish (1989) argues that advocating the use of plain language depends on the assumption that language is capable of achieving objective meaning, whereas it is not, as even language rules are documents that are subject to interpretation. Nonetheless, Butt (2002) explains that skilful 'plain' language can communicate directly and effectively with its intended audience without being complex, even when it is used to describe legal issues.

Various word and sentence-based factors have been shown to influence the readability and therefore comprehension of written information (Bailin & Grafstein 2001; Leong et al 2002). Vocabulary difficulty (Anderson & Davison 1988; Kucera & Francis 1967; Thorndike 1921); word complexity, including number of syllables (Harrison 1980; Leong et al 2002); syntactic complexity, whether achieved through short or long sentences; grammar; style (Bailin & Grafstein 2001); and textual coherence, or the presence or absence of explicitly-stated logical connections are all significant (Harrison 1986).

The readability of a contract can be tested on a number of scales that have been developed for this purpose; including the Flesch Reading Ease Formula, Flesch–Kincaid Grade Level, Simple Measure of Gobbledygook, Automated Readability Index, Spache Readability Formula, Coleman Liau Index, Gunning Fog Index, Raygor Estimate Graph, and Fry Readability Graph and Vogel and Washvurne Formula (Anderson & Davison 1988; Rameezdeen & Rodrigo 2013). Readability formulas generally elicit a reading age or grade level, with one notable exception being Nicoll and Harrison's (1984) study, which multiplied the reading difficulty level of a newspaper by its readership in order to develop a reading level measure.

However, these readability formulas can be flawed. For example, measuring readability by sentence length does not take into account that longer sentences can be more comprehensible due to the addition of explanatory information (Pichert & Elam 1985; Wright 1971). Moreover, readability formulas may give an exaggerated impression of the contribution of linguistic factors, whereas other text and reader properties that cannot be measured by formulas probably have a far greater influence on comprehension (Anderson & Davison 1988).

Using 'oral language', or personal pronouns in place of official terms like 'mortgagee', has been shown to improve comprehension (Masson & Waldon 1994). According to Chafe and Tannen (1987) this is due to the emphasis oral language places on interpersonal involvement, as opposed to the emphasis written language places on information transmission. Moreover, those with only basic literacy skill have been found to rely on oral strategies in writing. Using oral language causes a reader to pay more attention to the author's intention than the specific words used, improving comprehension (Olson 1980).

### Format and structure

Various issues pertaining to format and structure have also been shown to affect the comprehensibility of written information. For example, text accompanied by audio resulted in more correct answers about its content than text alone (Kaphingst et al. 2005). Similarly, including video and audio has been shown to facilitate the retention and subsequent recall of explanative but not descriptive information (Lim & Benbasat 2002).

The use of graphics and imagery has been shown to aid comprehension due to adding situational dynamics and explanation (Lowe & Pramono 2006). Waddill & McDaniel (1992) found that pictures depicting details increased recall of those details and pictures depicting relationships increased recall of that relational information (relative to a no-picture control condition) due to presumably enabling additional processing to occur. Animations have also been shown to have similar advantageous effects but with the advantage over static graphics that they can "present dynamic aspects without the need for additional markings to be incorporated within the display" (Lowe & Pramono 2006).

In Moore and Zabrucky's (1995) study, textual information presented online was comprehended better than information presented in printed form – despite Hillman's (2006a) unsubstantiated assertion that reading large amounts of text on a screen can be off-putting. However, Moore and Zabrucky's study presented information in printed text form in a solid block and the online text one sentence at a time, as enabled by the interactive online medium.

Verbal information has been shown to be comprehended better than numeric information, despite a greater avowed preference for information in numeric format (Vahabi 2010; Zwijnenberg et al. 2012). In Vahabi's study greater comprehension occurred regardless of whether numeric or verbal format was avowedly preferred by the participant.

Tables have also been shown to be useful for facilitating comprehension. Wright's (1971) research showed that action sequences are better comprehended in tabular arrays than in prose, especially if the reader knows what to look up; but a list of short sentences were shown to be easier to remember than either table form or logical tree, which causes consumers to visualise the information.

Further, consumers tend not to read information from the beginning to end, indicating the need for adequate signposting and cross-referencing (Wright 1981). Converse to common writer assumption, readers will not necessarily start from the beginning and read through in order but rather jump about, looking for information which catches their eye and seems relevant (Brake 1980). Further, indexes and contents lists assist comprehension by helping readers find answers to questions. Similarly, logical trees can be useful if the consumer needs help in finding the relevant part of the information (Better Regulation Executive 2007; Wright 1971).

## The effect of reader characteristics on written information comprehension

### Demography

The significance of demographic factors in comprehension has been examined in several studies. For example, Zwijnenberg et al (2012) found that demographic characteristics including age, socio-economic status, and literacy were the most significant factors affecting the comprehension of written information regarding choosing a hospital. Age has been found to be a significant factor in the ability to comprehend written information (Miller al. 2009; Moore & Zabrucky 1995; Moorman 1990; Zwijnenberg et al. 2012). Controlling for other factors, comprehension of written material decreased with age for adults (Miller et al. 2009). In Moore and Zabrucky's (1995) study younger adults spent less time reading texts and recalled more information than older adults, regardless of the format of the information. Zwijnenberg and colleagues (2012) explained that a decline in our deliberative, analytical and conscious thinking occurs with age, resulting in difficulty controlling attention and monitoring the accuracy of information in memory, particularly in unfamiliar or less meaningful situations. Pertinently, Moorman (1990) found that despite the clear worsening of comprehension abilities with age, it increased readers' perceptions of their abilities.

Mixed results have been found on the effect of income, with Donelle, Hoffman-Goetz, Gatobu and Arocha (2009) linking higher income to greater comprehension ability but Davis and colleagues (1996) finding no correlation. Stark and Joplin's (2010) findings adhere to the former: consumers of lower socioeconomic status were more likely to trust the contract vendor, reducing critical comprehension. This is in line with Richter and Rapp's (2014) research that revealed trust in the vendor influenced reader's expectations about the plausibility of expectations.

Literacy, strongly correlated with education level, was found by multiple studies to be positively associated with the ability to comprehend written information (Donelle et al. 2009; Kaphingst et al. 2005; Vahabi 2010; Zwijnenverg et al. 2012). Wittwer and Ihme (2014) discovered that less skilled readers were more likely to be influenced in their judgment of the coherency of prose by semantic similarity between sentences, whereas more skilled readers are more likely to be influenced by the presence of verbs that indicate causation between sentences.

In a similar vein, Mason, Meaden-Kaplansky, Hedin and Taft (2013, p. 69) explain that "students who struggle with learning may not have the metacognition needed to support the multiple processes required to understand what is read in informational text". Moreover, Waddill and McDaniel (1992) ascertained that pictures did not appear to compensate for poorer comprehension resulting from lower literacy levels.

### Self-efficacy

Self-efficacy, or beliefs about one’s capabilities to learn or perform behaviours at specified levels (Bandura 1986, 1987), has been shown to predict people’s performance on written tasks and the learning of written information (Bouffard-Bouchard 1989; Bouffard-Bouchard, Parent and Larivee 1991; Pajares 1996; Schunk 1995, 1996, 2003). People acquire perceptions of their own efficacy through comparing their performances with those of others, in particular with those similar to themselves (Schunk 1987); and by receiving feedback and reinforcement, including via performance accomplishments (Schunk 2003). Greater self-efficacy promotes performance through increasing motivation, which in turn raises effort and persistence (Bandura 1986; Schunk 2003); especially for text-based learning (Salomon 1984).

For example, those with high efficacy are more likely to view tasks, including comprehensions tasks, as challenges that will result in learning and work diligently to master them despite barriers and setbacks; while those with low efficacy may attempt to avoid tasks due to perceiving that they will have difficulty and may not learn anything, becoming “more self-diagnostic than task diagnostic” (Bandura & Dweck 1987; Bandura 1997; Schunk 1991, 2003; Wood & Bandura 1989 p. 408). This adheres to the expectancy-value theory of motivation espoused by Wigfield and Eccles (2000), which highlights the importance of belief in one’s own ability in promoting cognitive performance.

Wood and Bandura (1989) demonstrated the impact of self-efficacy on cognitive performance, including through its effect on analytic strategies, by manipulating self-efficacy in participants. In this experiment, participants who were instilled with the belief that the skill required to complete a cognitive task was acquirable displayed strong and resilient self-efficacy and therefore used analytic strategies in efficient ways, ultimately succeeding at the task. Conversely, participants who were told that the skill was inherent and fixed rather than acquirable demonstrated reducing self-efficacy as they encountered problems. This resulted in increasingly erratic analytic thinking, lowering motivation and progressively deteriorating performance. Consequently, it is appropriate to consider self-efficacy in our study, as it may influence consumers’ comprehension of telecommunications information or their ability to convey that comprehension via a knowledge test.

### Prior knowledge

The effect of prior knowledge on comprehension has been found variously to have both positive and negative effects on comprehension. Prior related knowledge – including technical competence – was shown by several researchers to positively influence a reader's ability to comprehend written information (Bailin & Grafstein 2001; Celsi & Olson 1988; Miller, Gibson & Applegate 2009; Pearson, Hansen & Gordon 1979). Cook and Brien (2014) found that relevant prior knowledge became activated upon reading narrative text and affected validation of the information, positively influencing comprehension. Moreover, Celsi and Olson (1988, p. 213; 222) found that "domain knowledge" influenced the "types of meanings produced by the comprehension processes" and was "increasingly influential" as comprehension became more controlled and focused, as per reading contracts to understand the contents.

Pearson, Hansen and Gordon (1979) similarly found that prior knowledge influenced children’s comprehension. Unsurprisingly, they found that the effect was more pronounced when textually implicit questions that required inferable prior knowledge were asked than when explicit questions were asked. Implicit questions were those that required the reader to refer to prior knowledge, such as “what part of Webby’s body is nearly the same as part of a snake’s body?” where there was no reference to a snake in the text. By contrast, explicit questions asked for information that could be found in the text, such as “what does Webby bite insects with?” (p. 204).

Conversely, Moorman’s (1990) study found that prior knowledge of the subject matter actually reduced information elaboration and processing due to the resulting “illusion of being more informed than one really is” - akin to other studies that have revealed the detrimental effect of knowledge-based overconfidence (Camerer, Loewenstein & Weber 1989; Hall, Ariss and Todorov 2005). However, Moorman’s study focused only on high levels of or no prior knowledge. In contrast, studies that have focussed on participants with a moderate level of prior knowledge have found it to result in greater processing and therefore comprehension (Bettman and Park 1980; Johnson & Russo 1984).

Other theorists have similarly found that too much information can have a negative effect on decision-making ability, even if the consumer perceives that they have comprehended the information. This has been shown to be due to the inability to ignore unhelpful prior knowledge (Camerer, Loewenstein & Weber 1989), specific decision-making biases that arise through familiarity and an assumption of being knowledgeable (Hall, Ariss & Todorov 2005) and a tendency to engage in less information processing due to the assumption of knowledgeability (Moorman 1990).

Similarly, Andersen and colleagues (Lewis & Anderson 1976; Reder & Anderson 1980) have found that utilising prior knowledge to judge or comprehend new material can actually hamper comprehension due to an ‘interference effect’, whereby the more one knows about a topic, the harder it is to retrieve any specific facts about it. Their finding is underpinned by their contention that humans make judgments based on themes rather than facts, and experience more interference according to the more themes that are known about a particular concept. However, these theorists contend that if only an overall consistency judgment is required without the retrieval of a specific fact, the ‘interference effect’ can be mitigated.

### Financial Literacy

Financial literacy may be an important concept to consider in the context of telecommunications contracts in light of the effects of prior knowledge, including relevant technical knowledge, on the comprehension of written information. Financial literacy, or an individual’s knowledge and skills required to efficiently manage their financial resources (Huston 2010; Remund 2010), has been shown to be positively correlated with achievement of optimal financial decisions (Huang, Nam & Sherraden 2013), even after controlling for socioeconomic characteristics (Lusardi & Mitchell 2011).

For example, as well as resulting in less retirement planning, saving (Behrman et al. 2010; Lusardi and Mitchell 2006, 2008, 2011), wealth accumulation and stock investment (Christelis, Jappelli, and Padula 2010; van Rooij, Lusardi, and Alessie 2007); low financial literacy is associated with paying higher fees and interest rates (Lusardi & Tufano 2009). This raises the question of whether those with lower financial literacy have more difficulty comprehending financial information from service providers. Moreover, it indicates the need to consider financial literacy – with lower rates more prevalent among younger people, women, the unemployed and the less educated (Agnew 2013) – in our study of consumers’ comprehension of telecommunications contracts.

### Motivation

Studies have generally shown that motivation to comprehend – particularly in terms of interest – plays a more significant role in actual comprehension than prior knowledge (Celsi & Olson 1988; Klare 1975; Miller et al. 2009; Moorman 1990; Wright 1981). Celsi and Olson (1988) found that the influence of prior knowledge in increasing comprehension became more pronounced as motivation to understand the contents increased. Additionally, Miller, Gibson & Applegate (2009) found that although motivation to understand the information did not directly affect comprehension accuracy, it influenced attention, which in turned influenced accuracy.

In a similar vein, Celsi & Olson (1988) described the phenomenon of 'felt involvement', or an individual's level of perceived personal relevance to the information contents. They defined 'felt involvement' as being influenced by physical and social aspects of the immediate environment and intrinsic characteristics of the individual. Their study revealed that 'felt involvement' positively influenced attention to and comprehension of information, as well as the "number and types of meanings produced by the comprehension processes" (p. 221). Moreover, they found that this 'felt involvement' was a more significant factor than the prior knowledge of the consumer. However, this research also underscores the difficulty of separating consumer motivation and prior knowledge and highlights their interactive effect.

# Research Method

Previous studies that have tested for comprehension of written information vary in methodological aspects of their procedures but tend to converge on many aspects. Most undertook written pre-testing for various participant characteristics; including prior knowledge pertaining to the information being presented, such as knowledge of nutrition or familiarity with CTAs (Donelle et al. 2009; Miller et al. 2009; Pearson et al.1979; Plaut & Bartlett 2012); motivational factors (Batra & Ray 1986; Celsi & Olson 1988; Miller et al. 2009; Plaut & Bartlett 2012); prose and numeric literacy skills (Donelle et al. 2009; Kaphingst et al. 2005) and demographics; including age, sex, preferred language, ethnicity, years of formal education, income and location of birth (Donelle et al. 2009; Kaphingst et al. 2005). Thomson & Hoffman-Goetz (2011) conversely conducted this pre-testing in a verbal one hour interview.

These studies then either separated participants into groups based on the participant characteristics they had tested for; such as prior knowledge, literacy skills and demographics (Donelle et al. 2009); or simply noted the variables for statistical analysis later (Davis et al. 1996; Kaphingst et al. 2005). By contrast, Waddill & McDaniel (1992) asked participants to rate their degree of prior knowledge after they had completed the free-recall comprehension task.

Studies then commonly presented information to the participant in written form (Davis et al. 1996; Donelle et al 2009; Pearson et al. 1979; Thomson & Hoffman-Goetz 2011). Studies testing for the effect on comprehension of different formats also presented participants with the same information in different formats (Donelle et al 2009; Miller et al. 2009; Moore & Zabrucky 1995; Vahabi 2010; Waddill & McDaniel 1992) and using different types of language (Masson & Waldron 1994). The length of time it took to read the written information was often recorded (Davis et al. 1996; Masson & Waldron 1994; Moore & Zabrucky 1995).

In many studies participants were then asked to self-rate their comprehension of the material using either a multi-point scale (Waddill & McDaniel 1992) or multiple choice questions such as ‘did you understand the passage’: ‘no’, ‘sort of’ or ‘yes’ (Moore & Zabrucky 1995). Some studies also asked participants to qualitatively discuss the perceived usefulness and clarity of the information (Zwijnenberg et al. 2012; Better Regulation Executive 2007; Kaphingst et al. 2005) and their attitude towards the contract (Broome and Hayes 1997). The latter questioning may be important due to findings that the perceived usefulness of information influences its likelihood of being comprehended (Zwijnenberg et al. 2012), as does the perceived credibility of the source (Richter & Rapp 2014; Plaut & Bartlett 2012).

The majority of studies also directly tested for their comprehension of the written information: a more accurate approach than self-reporting due to the latter’s known limitations, particularly in terms of validity being affected by deliberate or unconscious deception, misunderstanding of the queries or a lack of accurate knowledge responses (Crawley 2010; Stapleford 2012). This was done through a variety of methods, including asking participants for a written long answer description of what was understood (Celsi & Olson 1988; Waddill & McDaniel 1992), a verbal long answer description (Moore & Zabrucky 1995), verbal short answer questions (Pearson et al. 1979), a written paraphrasing of segments (Masson & Waldron 1994), answers to true-false questions (Kaphingst et al. 2005), written short answer questions (Davis et al. 1996; Kaphingst et al. 2005; Vahabi 2010; Zwijnenberg et al. 2012), written multiple choice content questions (Miller et al. 2009), and a ‘fill in the blank’ Cloze test (Rameezdeen & Rodrigo 2013; Thomson & Hoffman-Goetz 2011).

Health-related studies also used specific comprehension tests that have been developed for health information, such as the S-TOFHLA, and REALM (Thomson & Hoffman-Goetz 2011). It is possible that some of these tests could be modified for use in a non-health context. The REALM is a word recognition test that requires participants to read health-related words like ‘osteoporosis’ and ‘allergic’ aloud: it is consequently unlikely to be useful for this study due to the lower likelihood of specific unfamiliar terms being included in a telecommunications contract (Bass, Wilson & Griffith 2003). However, the S-TOFHLA utilises a modified Cloze procedure wherein every fifth to seventh word is omitted and participants need to ‘fill in the gaps’ with the missing information, and so could be easily adapted and utilised in a non-health context, as per the Cloze procedure utilised by Rameezdeen and Rodrigo (2013) and Thomson and Hoffman-Goetz (2011).

Some contract-specific studies also directed participants to respond to certain hypothetical scenarios – such as a bank debit card being stolen and used for unapproved purchases and a rental car not working – in order to determine participants’ ability to apply the terms and conditions of the contracts to real world contract-related problems and to make judgments about the rights of parties, thereby indicating their true comprehension of the material (Becher’s & Unger-Aviram's 2010; Masson & Waldron 1994). Considering the importance of understanding the degree to which consumers are able to actually utilise and enact the terms of their telecommunications contracts, rather than simply be superficially cognisant of them; such a real-world scenario-based testing method is appropriate for this study.

In this study, participants were allocated into three randomised groups, and provided with three different levels of information, viz., Sales Summary Only (SS) = *Elementary* information, Sales Summary and Critical Information Summary (SS\_CIS) = *Intermediate* information, and Sales Summary, Critical Information Summary, and Terms and Conditions (SS\_CIS\_T&C) = *Advanced* information. Each of these sources of information were developed from “real-world” telecommunications documents, except for the sales summary, which was developed after the researchers visited a series of different telecommunications retailers and asked them to talk them through a standard purchase for the type of agreement contained in the CIS and T&C. This sales summary was then tested with an expert panel for authenticity, and was also validated with participants in the study (see results in the technical appendix).

After allocation into the three groups, participants were provided with the appropriate information, and asked to read it thoroughly. After they had read the information, they were then directed to an online questionnaire that measured their response to the information provided, as well as demographic questions (Stage One).

Participants were contacted 24 – 48 hours (Stage Two) after first reading the material provided and the completion of the Stage One questionnaire, and provided with a series of scenarios common to people using telecommunications products (for details in relation to the questions asked and their development, see [Knowledge Test section](#_Knowledge_Test)). Participants were provided with access to the original information via a web-link, to assist them to complete their component of the scenarios.

As a final test of both comprehension and also of retention of the information, respondents were contacted 14 – 21 days after the first contact, and asked to provide the answers to problems from Stage Two, as well as to additional problems related to the information provided in the SS, CIS and/or the T&C.

Justification for both the online distribution and for the method used in Stages Two and Three is provided over the next three pages.

## Online questionnaire

As utilised by many studies discussed in this review (Celsi & Olsen 1988; Donelle et al. 2009; Miller et al. 2009; Moore & Zabrucky 1995; Waddill & McDaniel 1992; Vahabi 2010), a written questionnaire, including a combination of multiple choice and open-ended questions is the most appropriate methodology for this study.

Compared with verbal interviewing, such as that undertaken by Pearson, Hansen and Gordon (1979), written questionnaires are relatively easy to construct and administer; enable a large amount of information to be obtained; can have a relatively high reliability when fixed-response questions are used; and are relatively simple to code, analyse and interpret (Brace 2013).

Yet, despite the majority of researchers electing to utilise hard copy written form for their questionnaires - with one notable exception being Miller, Gibson and Applegate (2009) - questionnaires presented in an online format have been shown to have numerous advantages over those presented in other formats. The advantages of online questionnaires include greater flexibility of and control over format; reduced response time; lower cost; interactivity; convenience; ease and accuracy of data entry and analysis; control of answer order; required completion of answers; recipient acceptance of the format and the ability to obtain additional response-set information for more relevant results (Bryman 2012; Evans & Mathur 2005; Granello & Wheaton 2004; Malhotra 2012; Terhanian & Bremer 2012; Ward et al. 2014). Online presentation has also been shown to enhance comprehension (Moore & Zabrucky 1995), particularly through graphics and other electronic media, which can provide variety, stimulate choice, and enhance or clarify questions (Granello & Wheaton 2004; Lowe & Pramono 2006; Waddill & McDaniel 1992). Moreover, participants perceive their anonymity is better protected when completing online questionnaires, reducing the risk of social desirability bias (Brace 2013; Randall & Fernandes 1991; Ward et al. 2014). Consequently, this study utilises an online questionnaire.

Further, utilising a combination of multiple-choice and open-ended questions enables the benefits of these different kinds of questions to be reaped in combination. For example, multiple-choice questions render it easy to code and compare the resulting data, while open-ended questions enable richer qualitative data to be obtained (Bryman 2012; Malhotra 2014).

## Delayed testing – 24 hours and 14 – 21 days after initial receipt

In most studies featured in this review participants were only tested immediately after reviewing the written information. It is conversely important to determine the extent to which consumers retain telecommunications information in their long-term memory, as consumers who need to refer to their contracts' terms are likely to need to do so after weeks or months have passed. Consequently, this study adds two stages of re-testing of comprehension, both 24-48 hours and 3–4 weeks after the point-of-sale to determine retention.

## Development of questions

In the following paragraphs, we outline our approach in relation to the development of the two question types, viz., self-assessed items and the knowledge test.

### Self-assessed items

#### General self-efficacy

As discussed earlier, self-efficacy, or beliefs about one’s capabilities to learn or perform behaviours at specified levels (Bandura 1986, 1987), has been shown to predict people’s performance on written tasks and the learning of written information (Bouffard-Bouchard 1989; Bouffard-Bouchard, Parent and Larivee 1991; Pajares 1996; Schunk 1995, 1996, 2003). Multiple scales exist that measure self-efficacy in a range of different contexts, however, the General Self-Efficacy scale developed by Schwarzer and Jerusalem (1995) is commonly used to assess a general sense of perceived self-efficacy in relation to how people cope with daily hassles. In particular, our scale used ten items that measure elements of perceived self-efficacy such as goal-setting, effort investment, persistence in facing barriers and recovery from setbacks. The scale has been validated in multiple contexts including health provision (Schwarzer and Jerusalem 1995), parenting (Sanders and Woolley 2005), workplace stress (Semmer 2003), smoking cessation (Harris and Harrison 2014), use of the internet (Schwarzer et al 1999) and education (Gregoire 2003). The ten items in the scale are noted in in the technical appendix.

#### Financial literacy

Financial literacy was measured using items taken from the OECD Measuring Financial Literacy (2011) guidelines and questionnaire, and adapted to this study. As other elements of this study assessed demographic characteristics, along with self-assessment measures (see self-efficacy, understanding, and relevance measures), nine questions were taken from the overall study that were considered to have face validity in measuring financial literacy. These items were tested later in the study for convergent and discriminant validity (from other concepts measured in the self-assessed measures).

#### Satisfaction, believability, understanding and relevance of the information provided

Measures of satisfaction, believability, understanding and relevance of the information provided in the sales summary, critical information summary and terms and conditions were used to ascertain participants’ assessment of the contractual information presented to them. Each of these concepts were measured using validated scales developed by Harris and Harrison (2014) and McQuilken et al (2015) and adapted to this context, to measure consumer responses to advertising and information communications in consumer experiments.

Satisfaction with the information provided was included to measure respondents’ belief that the information they were provided, viz., Sales Summary, Critical Information Summary, Terms and Conditions, was satisfactory for them to make decisions related to purchasing telecommunications products, and consisted of the following questions: I was very satisfied with the information about the agreement; The information that I received in the preceding paragraphs was helpful; I am happy with the amount of information I have received in relation to the telco agreement; The information I received in the preceding paragraphs would be enough information for me to consider agreeing to sign-up for a SIM card. Responses were measured using a five-point Likert scale with 1 = Strongly Disagree and 5 = Strongly Agree.

Believability of the information provided was included to measure consumer attitudes in relation to whether the SS, CIS and/or T&C were believable in the context of their experience of these types of information sources. The measurement of believability in hypothetical scenarios is a common approach to gain participants attitude toward the scenarios (McQuilken et al 2015). Similar to the satisfaction measure, and other metrics in the self-assessment category, we used a five-point Likert scale, with 1 = Not at all, 5 = Completely, and consisted of three questions, viz., How close to the reality of a telco agreement is the information that has been provided to you; How authentic is the information provided; How likely is this information to be the kind of information a telecommunications provider would give you if you were considering using their services?

We measured self-assessed understanding of the information provided in the documentation using the following items taken from McQuilken et al (2015) which has been validated in the telecommunications context; I have understood the information contained in the [insert documentation received]; I believe that I could solve basic problems with my phone plan with the information provided; I did not understand the agreement with the telecommunications company; The agreement was too complex, and, I was not sure what my rights were under the agreement.

We also tested respondents’ belief that the information provided would be relevant to them making decisions in a telecommunications context. The questions were adapted from McQuilken et al (2015), viz., The information provided would be relevant in my consideration of the SuperMobile Smartphone Plan; The information provided would be useful in my consideration of a SuperMobile Smartphone Plan; The amount of information provided would be appropriate in my consideration of a SuperMobile Smartphone Plan.

### Knowledge test

In the following section, we describe the process of development for the knowledge test.

#### Development of the knowledge test

By using material from the Sales Summary (SS), Critical Information Summary (CIS), and Terms and Conditions (T&C), we developed a series of questions or scenarios that could be solved or understood by reference to the key documents. As such, questions (n = 10) classified in the “elementary” category were taken from information provided in the SS, questions (n = 7) in the “intermediate” category were taken from information in the CIS, and questions (n = 6) in the “advanced” category were taken from information contained in the T&C. Details of these questions are provided in the Technical Appendix.

An example from the elementary category is, “How much data per month is included in the agreement?”, from the intermediate category, “After three days of being with SuperMobile, you realise that the plan does not suit your needs. You decide to cancel the service. What is the total amount you will pay for your three days with SuperMobile?”, and from the advanced category, “You have been told that your data has now reached 85 per cent which means that you have (DROP DOWN BOX: 0.15, 0.23 (Y), 0.5, 1.0) GB left until the end of the month.” For each of the questions, in all categories, four options were provided (multiple choice), and participants were required to choose one of these as the correct answer.

It is important to emphasise that the information for each of the questions in each category was explicitly available in each of the documents provided, i.e., no information was withheld from the appropriate groups, nor was any deception involved in the experiment.

Prior to distribution of the knowledge test, the questions were given to an expert panel of telecommunications stakeholders, marketing specialists, psychology and sociology experts, to assess the efficacy of the questions in the context of the information that was provided to participants. All questions were considered reasonable, and that the information provided would suffice for people to be able to answer the questions pertaining to each category. In addition, we distributed the knowledge test to complete amongst another expert panel, with the results provided in the following pages.

# Results

A detailed description of the data analysis for the experimental phase is included as a technical appendix to this report.

## Approach

In order to understand which forms of information provide consumers with the best understanding of their telecommunications agreement, we need to consider other factors that might influence consumers’ understanding. For example, do older or highly educated consumers understand the terms of their agreement better?

To control for these factors, we conducted several regression analyses wherein these potentially confounding factors were treated as variables in addition to variables representing the three information groups of primary interest. It is worth observing that although structural equation modelling is common in studies such as this, this method cannot be employed here due to the dichotomous nature of the response variables (Blunch 2008, p. 224), i.e., since the knowledge tests in this study mostly comprise questions that are either right or wrong, we cannot assume normality in these responses, which is an underlying assumption of structural equation modeling.

The focus of this analysis is how many correct knowledge-test questions each of the three information groups (SS, SS\_CIS, SS\_CIS\_TC) achieved, and whether there was a significant difference between the groups. Thus, we need to ensure that the subdivision of the sample into the three information groups are broadly similar in terms of representing Australian consumers, in addition to the broad biases of the sample discussed above. For example, if the majority of one group does not speak English as a primary language but the other two knowledge groups do, then this could influence how the group performs on the knowledge test, regardless of the information provided.

Before describing the results of the regression analyses, we first provide an overview of the demographic make-up of the sample. The reason for this is two-fold. Firstly, the sample may not reflect the Australian population, but some subset of it. Indeed, as is explained in the next section, our sample has a high representation of Australians over 50. This is not problematic, *per se*, as the sampling was random, however, this should be considered when reading the results of the study, particularly in relation to statistical significance of the findings. The second reason is that the demographic analysis informs how variables are built into the regression model. Since regression analyses are studies of variation, it is not useful to include variables whose sample sizes are particularly small. Consider that there is no variation with a sample size of one (Montogomery, et al. 2012); Sheather 2009). The demographic analysis allows us to make decisions to alleviate problems such as these, by combining factors or creating composite measures.

## Questionnaire One: demographics and self-assessed understanding of the contract

A sample of 362 participants were randomly selected from a database of 350,000 Australians in the three questionnaires, divided evenly across the three knowledge groups with: 121 in the sales summary (SS) group; 120 provided with the sales summary and the critical information summary (SS\_CIS); and 121 provided with the sales summary, the critical information summary, and the terms and conditions (SS\_CIS\_TC). As the modelling will show, these sample sizes are sufficient for providing practical 95 per cent confidence intervals for covariate estimates, which is standard in statistical analysis.

Questionnaire One was conducted immediately after participants had undergone one of the sales processes (i.e., SS, CIS and/or T&C) and included two types of questions:

* Demographic questions
  + Gender
  + Country of origin
  + Language
  + Aboriginal or Torres Strait Islander
  + Age
  + Highest education level attained
  + Employment status
  + Income
* Self-assessed understanding of the telecommunications agreement using validated scales to examine each construct, viz.,
  + General self-efficacy
  + Satisfaction
  + Believability
  + Relevance
  + Understanding
  + Financial literacy

The demographic questions allow us to build questions into the statistical analysis, such as, Are highly educated people better at understanding their telecommunications agreements? Using the results of these demographic questions we can control for other factors that might influence consumers’ understanding of their telecommunications agreements.

The self-assessed questions allow us to control for whether there is a relationship between how consumers rate their own understanding of the agreement and how well they perform, as measured by the knowledge tests performed in Stages Two and Three.

### Demographics and manipulation of the data

A standout feature of the sample is that 50 per cent of the participants were aged 55 and over. 27 per cent of the sample were aged between 55 and 64, 21 per cent of the sample were aged between 65 and 74, and 3 per cent of the sample were aged 75 or over. According to the 2011 ABS census, 22 per cent of the Australian population was over 55. We must therefore bear in mind throughout the analysis of the data that these results are more representative of older Australians.

Another overall feature of the sample was that well over 50 per cent of the sample fell into two educational categories (highest education level attained). Twenty seven per cent of the participants held a Bachelor’s degree and 30 per cent of the sample had attained some kind of trade, technical, or vocational training outside of a Bachelor’s degree. The sample is not as representative of those with high school or lower as the highest educational level attained, as well as those who have attained a postgraduate level of training. This is less of a problem than the age issue discussed above, since this is close to representative of the educational level of the Australian public.

In terms of country of origin, primary language spoken, and Aboriginal or Torres Strait Islander status, we found subcategories with small numbers (< 10) disproportionate to other far larger subcategories. In these cases, we collapsed several subcategories into one subcategory, or simply excluded this category from the analysis. There are natural ways to collapse subcategories into larger subcategories, which we now detail.

We first consider country of origin. Of our sample of 362 participants, 262 people nominated Australia as their country of origin, and the rest were divided into many small groups detailed in Table 1: Counts for all countries. Here we have a number of small subcategories, including a number of subcategories (e.g., Hong Kong, Romania, Latvia) with a sample size of 1.

Table : Counts for all countries

| Country | Count |
| --- | --- |
| Australia | 262 |
| England | 34 |
| Germany | 6 |
| India | 6 |
| Malaysia | 6 |
| New Zealand | 5 |
| Philippines | 4 |
| South Africa | 3 |
| Ukraine | 3 |
| Austria | 2 |
| Canada | 2 |
| China | 2 |
| Finland | 2 |
| France | 2 |
| Scotland | 2 |

| Country | Count |
| --- | --- |
| Zimbabwe | 2 |
| Bosnia | 1 |
| Czech | 1 |
| Greece | 1 |
| Hong Kong | 1 |
| Indonesia | 1 |
| Italy | 1 |
| Latvia | 1 |
| Lebanon | 1 |
| Romania | 1 |
| Serbia | 1 |
| Sri Lanka | 1 |
| Trinidad | 1 |
| Vietnam | 1 |
| Prefer not to say | 6 |

In order to perform regression analysis, we categorized people into three groups: those who identified Australia as their country of origin (262); those who did not (93); and those who preferred not to say (6). These three subdivisions were represented across the three knowledge groups.

The sample displayed similar results for primary language spoken, so we collapsed these subcategories into two subcategories, those that spoke English as a primary language (343), and those who spoke some other language as their primary language (19). There was little difference between the proportions of these two categories across the three knowledge groups.

Only one person identified as Aboriginal or Torres Strait Islander, so it is not possible to compare the performance of different knowledge groups with respect to this category, in addition to the statistical limitations of small sample sizes discussed above.

### Self-assessed factors/key constructs

As well as small sample sizes, we also manipulated the self-assessed results to better target research questions. Each of the self-assessed categories was measured by several questions drawn from validated scales. Since each question was answered on a scale of 1 to 5, we can create composite measures by calculating the sum of the questions’ results for each self-assessed category. In Table 2 we detail the number of questions asked and the associated composite measure for that self-assessed category.

Table : Composite measures for self-assessed categories

| Self-assessed category | Number of questions | Maximum composite score |
| --- | --- | --- |
| Self-efficacy | 10 | 50 |
| Satisfaction | 4 | 20 |
| Believability | 3 | 15 |
| Relevance | 3 | 15 |
| Understanding | 5 | 25 |
| Financial literacy | 9 | 45 |

On average, the participants in the study rated themselves fairly highly for those questions measuring general self-efficacy (mean score: 37.5 ±6.3 out of a maximum of 50). Participants rated the believability of the different types of information provided for the groups (SS, CIS and T&C) as close to the reality of the type of information that would be provided in a typical scenario, with average believability 11 ± 2.5 out of 15. For further detail regarding each of the self-assessed constructs, please refer to Appendix 2 – Questionnaire. Table 3 (below) provides summary statistics for all self-assessed factors.

Table : Summary statistics for each key concept

| All | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Self-efficacy | 10 | 34 | 38 | 37.45 | 41 | 50 | 6.28 |
| Satisfaction | 4 | 12.25 | 15 | 14.8 | 16 | 20 | 3.18 |
| Believability | 3 | 9 | 11 | 10.92 | 12 | 15 | 2.54 |
| Relevance | 3 | 9 | 12 | 11.24 | 13 | 15 | 2.93 |
| Understanding | 6 | 14 | 15 | 15.44 | 17 | 25 | 2.58 |
| Financial literacy | 9 | 30 | 33 | 32.59 | 35 | 45 | 4.13 |

We did not find any significant difference in the average composite scores for self-efficacy, financial literacy, and believability between the information groups. That is, the participants in the three information groups rated themselves in a similar fashion with respect to their financial literacy. The participants rated equally the believability of the sales summary, the critical information summary, and the terms and conditions.

For the self-assessed factors in which we found a significant difference (via ANOVA) we performed a post-hoc analysis. Whilst there were statistically significant differences between one group and the other two information groups for satisfaction (with the information provided), relevance (of the information to the decision-making), and understanding, these differences were small. For example, there was a difference in satisfaction between the SS and SS\_CIS groups, but the predicted difference between these two groups, while statistically significant, is only between 0.15 and 1.81. Given that these differences are relatively small, we can proceed with the regression analysis.

## Questionnaire Two and Three: Comparing the knowledge test across the two time points

Since Questionnaire Three asked the same questions as Questionnaire Two with additional questions, we split the data analysis into two sets of regression models. In this section we compare the twelve common questions asked in Questionnaire Two and Questionnaire Three, to see if there is a difference between consumers’ understanding of their telecommunications agreement between 24 hours and a few weeks after the sales process. In the next section we include the extra questions asked in Questionnaire Three and focus only on that time point, which is a few weeks after entering the agreement. Of particular interest in the analysis in this section is whether there is a significant difference between the results of the two time points. If there is not, then we may essentially disregard the results of Questionnaire Two, which does not include the extra questions asked in Questionnaire Three.

We calculated the difference between the number of correct questions participants obtained in Questionnaire Two and Questionnaire Three and performed a regression analysis on the difference, incorporating all demographic factors as well as the self-assessed factors as covariates. We ran the model through a step algorithm to identify the subset of covariates that would maximize the strength (Akaike Information Criterion) of the model. The results of this analysis are presented in Table 4.

Table : Significant factors from the difference of common questions model

| Factors | Estimate | Std. Error | t value | Pr(>|t|) | 2.50% | 97.5% |
| --- | --- | --- | --- | --- | --- | --- |
| Group: SS | 0.62 | 0.35 | 1.76 | 0.08 | -0.07 | 1.31 |
| Language: other | -0.81 | 0.4 | -2.04 | 0.04 | -1.58 | -0.03 |
| Relevance | -0.05 | 0.03 | -1.57 | 0.12 | -0.11 | 0.01 |

This tells us that the model predicts that there is little difference between consumers’ understanding of their telecommunications agreements after 24 hours and after a few weeks.

The model suggests that Australians for whom English is not their primary spoken language would perform slightly worse on the common questions in Questionnaire Three. Our model predicts, with 95 per cent confidence, that consumers whose primary language is not English would answer between -1.58 and -0.03 questions correctly (out of 12 total questions) at the second time point.

Aside from this small difference, the model suggests there is not a significant difference between consumers’ answers at the two time points. Thus, in the next section we can disregard the responses to Questionnaire Two.

## Questionnaire Three: analysis of all questions asked after a few weeks

There is one feature of the data that is worth bearing in mind before exploring the results of the regression analysis: participants answered less than half of the knowledge test questions correctly regardless of which information group they were assigned to. In Table 5 we see summary statistics of the number of correct questions answered for each information group (SS, SS\_CIS, SS\_CIS\_TC).

This preliminary analysis suggests there is little difference between the information groups’ responses. Overall, the majority of participants answered 11.03 ± 3.31 questions correctly out of a total of 26 questions (between 30 and 55 per cent correct). On average: the group provided with the sales summary (SS) answered 10.25 ± 2.59 questions correctly (between 29 and 49 per cent correct); the group provided with the sales summary and the critical information summary (SS\_CIS) answered 11.64 ± 3.73 questions correctly (between 30 and 59 per cent correct); and the group provided with the sales summary, the critical information summary, and the terms and conditions answered 11.20 ± 3.39 questions correctly (between 30 and 56 per cent correct). Each of these differences were statistically significant, but small. Not only were the results similar for each knowledge group, the mean scores were all below the 13 required to answer half the questions correctly.

Table : Summary statistics on all questions asked at Stage 3

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SS | 4 | 8 | 10 | 10.25 | 12 | 15 | 2.59 |
| SS\_CIS | 5 | 9 | 12 | 11.64 | 14.25 | 19 | 3.73 |
| SS\_CIS\_TC | 3 | 8 | 11 | 11.2 | 14 | 19 | 3.39 |
| All | 3 | 8 | 11 | 11.03 | 14 | 19 | 3.31 |

The similarity of the results for the three knowledge groups, and the poor results overall, should temper our interpretation of the data in the sense that although findings may be statistically significant, they may not be significant in any kind of practicable way. That said, such a low number of correct answers, when compared to the Expert Panel (see Expectations of Stakeholders), suggests that the typical consumer struggles with the overall complexity of solving telecommunications problems, regardless of the amount of information provided.

An optimised regression analysis (significant factors presented in Table 6) was performed on the total number of correct questions attained in Questionnaire Three with the same explanatory variables as those employed in the regression analysis of Questionnaire Two.

Table : Significant factors of optimised regression model for all questions asked at Stage 3

| Factors | Estimate | Std. Error | t value | Pr(>|t|) | 2.50% | 97.50% |
| --- | --- | --- | --- | --- | --- | --- |
| Education: Trade/technical/  vocational training | -1.49 | 0.45 | -3.3 | 0 | -2.39 | -0.6 |
| Language: other | -1.68 | 0.75 | -2.24 | 0.03 | -3.17 | -0.2 |
| Understanding | -0.16 | 0.07 | -2.4 | 0.02 | -0.29 | -0.03 |
| Group: SS | 8.84 | 2.7 | 3.27 | 0 | 3.53 | 14.15 |
| Group: SS\_CIS | 1.17 | 0.41 | 2.89 | 0 | 0.38 | 1.97 |
| Group: SS\_CIS\_TC | 1.03 | 0.4 | 2.57 | 0.01 | 0.24 | 1.82 |
| Relevance | 0.28 | 0.06 | 4.74 | 0 | 0.17 | 0.4 |

Overall, the model does suggest some difference between the groups. The model predicts (with 95 per cent confidence[[4]](#footnote-4)) that consumers provided with the sales summary information (SS) would answer between 3.53 and 14.15 questions correctly. The model predicts that those provided with the sales summary and critical information summary (SS\_CIS) would answer between 0.38 and 1.97 more questions correctly than the SS group. Those provided with the sales summary, the critical information summary, and the terms and conditions are predicted to perform slightly worse than the SS\_CIS group, answering between 0.24 and 1.82 more questions correctly than the SS group.

Notice that these confidence intervals for the SS\_CIS and SS\_CIS\_TC groups have minimums that are less than one and maximums that are less than two, which is to say, that consumers provided with the critical information summary and/or the terms and conditions would only answer one or two more questions correctly than those provided with only the sales summary. Therefore, the real significance of these differences must be questioned despite the statistical significance suggested by the model.

Further, the maximum of 14.15 of the confidence interval for the SS group is low (out of 26 total questions), and the interval is very wide, suggesting some variation in responses. It is therefore worthwhile exploring other mitigating factors that affect consumers’ understanding of their telecommunications agreement than the form of summary information provided.

### Relationship between different forms of information and performance on knowledge test

We also performed regression analyses on the subsets of Questionnaire Three that were targeted at the different knowledge groups. Some questions required the sales summary, some required the critical information summary, and some required the terms and conditions. Table 7 presents summary statistics for the three levels of difficulty: elementary (11 questions), intermediate (8 questions), and advanced (7 questions).

Table : Summary statistics for questions by difficulty

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Elementary | 2 | 6 | 8 | 7.35 | 8 | 11 | 1.60 |
| Intermediate | 0 | 1 | 2 | 2.38 | 4 | 6 | 1.71 |
| Advanced | 0 | 1 | 1 | 1.31 | 2 | 4 | 0.98 |

The sample performed moderately well on the elementary questions, with an average of 7.34 ± 1.60 out of 11, with some participants answering all questions correctly. Participants did not perform well on the intermediate or advanced questions, on average, answering 2.38 ± 1.71 intermediate questions out of 7, and only 1.31 ± 0.98 advanced questions out of 7. The most advanced questions any participant answered correctly were 4 out of 7. As a starting point, these summary statistics suggest that it is unrealistic to expect a greater than moderate understanding of the elementary features of consumers’ telecommunications agreement, and highly unrealistic to expect consumers to have an understanding of the intermediate and advanced features.

We performed regression analyses on the three different levels of questions to see if these results suggest a difference between the knowledge groups, or whether any other factors contribute. Curiously, the regression analysis suggests the three knowledge groups perform the same on the elementary questions (requiring only the sales summary) and the advanced questions (requiring the terms and conditions). That is, consumers equipped with the terms and conditions are not predicted to have a better understanding of their telecommunications agreement than those only provided with the sales summary. This possibly supports the phenomenon of `information overload’ discussed previously (Amoriggi 2007; Hillman 2006a; Leong, Ewing & Pitt 2002). Or, this could be another case of complexity as a barrier to understanding (Cogon 2010; Rameezdeen & Rodrigo 2013).

The difference between the groups found in the analysis of all questions is explained entirely by the model for the intermediate questions, as there are no significant differences between the information groups for the elementary questions and the advanced questions. Table 8 presents the significant factors from the optimized regression analysis for the intermediate questions.

Table : Significant factors of the regression model for intermediate questions

| Factors | Estimate | Std. Error | t value | Pr(>|t|) | 2.50% | 97.5% |
| --- | --- | --- | --- | --- | --- | --- |
| SS\_CIS group | 0.72 | 0.21 | 3.43 | 0 | 0.31 | 1.13 |
| SS\_CIS\_TC group | 0.66 | 0.21 | 3.13 | 0 | 0.25 | 1.07 |
| Relevance | 0.14 | 0.03 | 4.57 | 0 | 0.08 | 0.2 |

Although relevance is listed as a significant factor here, consumers are only predicted to answer between 0.08 and 0.20 more questions correctly for each point in their relevance score.

The analysis on the subsets of questions explains what part of the model predicts significant differences between the groups; however the differences between the groups must be tempered by the context of the poor performance of all groups. Although one information group might attain one or two more questions correctly on average than another information group, if all groups are still achieving less than 50 per cent on the knowledge test then we must arguably downgrade expectations of consumers’ understanding of their telecommunications agreement. Although consumers rate themselves as good problem solvers who understand their telecommunications agreement fairly well (Table 8), the model suggests their understanding of the agreement will not live up to their own expectations. In other words, self-assessed understanding does not predict actual comprehension, at least in the context of being able to solve problems.

### Some specific findings

#### People whose first language is not English did worse than others

According to the model, there are two demographic factors that reduce the number of correct questions consumers attain in Questionnaire Three. Consumers for whom English is not their primary language are predicted to answer between -3.1 and -0.2 answers correctly than those whose primary spoken language is English. Arguably, this is not surprising.

#### People with vocational qualifications did worse than all other educational levels

What is interesting, however, is that consumers with a highest education level attained of trade, technical, or vocational training are predicted to answer, on average, between -2.4 and -0.6 answers correctly than those with Bachelor’s degrees. Interestingly, no other education level is predicted to impact on a consumers’ understanding of their telecommunications agreement. Those who are educated to high school or below are not predicted to perform worse than those with Bachelor’s degrees, and postgraduate qualifications are not predicted to improve consumers’ understanding.

#### There was a negative relationship between self-assessed understanding and correct answers

Another curious negative relationship that emerges from the model is that of initial self-assessed understanding of the telecommunications agreement. There is an inverse relationship between how well consumers rated their understanding of the agreement straight after the sales process and how many questions they answered correctly in Questionnaire Three. For each point in their understanding score (maximum 25) consumers are predicted to answer between -0.29 and -0.03 questions correctly. In other words, asking people if they have understood their obligations does not predict understanding of their obligations.

#### There was a positive relationship between those who rated the information as relevant to their needs and correct answers

There is a positive association between how highly consumers rated the information they were provided with, measured by relevance (maximum 15), and the number of questions answered correctly. For each point in relevance, consumers are predicted to answer between 0.17 and 0.40 questions correctly. This would suggest that the more a consumer believes the information provided is relevant to their needs the better they are able to recall, and make use of, that information.

### Expectations of stakeholders

In addition to knowledge test distributed to a random population, we undertook a comparison of key stakeholder expectations of consumers’ abilities to solve the posited problems with the outcomes of the knowledge test. We asked ten experts, from telecommunications companies, law firms, consumer advocacy organisations, universities and regulators to complete the knowledge test noted above. The findings from these are noted as “Knowledge Test – Experts” alongside the average result from all participants in the knowledge test in Tables 9 and 10.

In addition, we asked representatives of telecommunications companies, consumer advocates, and regulators a series of questions related to their expectations of what consumers should be able to do in relation to understanding their telecommunications contracts. We contacted 10 telecommunications representatives, with three completions. We contacted 10 consumer advocates with nine completions. We contacted 10 regulatory representatives, with five completions.

We modified the language so that a problem to be solved became an expectation question. So, for example, a problem such as “How much data per month is included in the agreement?” is rephrased as “I believe that the typical consumer would know how much data is included in their plan”. We asked the expert panel to make their judgement on a Juster type (11 pt) scale, where 0 = There is no probability, no chance, through to 100% = Highest probability, 99 - 100% chance.

* We then analysed the responses of the different members of the expert panels, viz., Regulators, Consumer Advocates and Telecommunications Representatives. Their average responses are displayed in Figure 1and Figure 2 under the headings “Expectations – Regulators”, “Expectations – Consumer Advocates”, and “Expectations – Telecommunications Companies”.

We found that, on average, regulators had the most realistic expectations of consumers’ understanding of their agreements, while consumer advocates underestimated, and telecommunications representatives overestimated consumer capacity to understand their agreements. Details for each of the questions are provided in Figure 1 and Figure 2 (next page).

Figure : Comparison of key stakeholder expectations with knowledge test

\* = Questions contained in SS questionnaire

\*\* = Questions contained in SS\_CIS questionnaire

\*\*\* = Questions contained in SS\_CIS\_T&C questionnaire

Figure : Comparison of key stakeholder expectations with knowledge test

# Recommendations

1. **Recommendation 1**: As part of its current research on the operation of the TCP Code since the [Reconnecting the Customer Inquiry](http://www.acma.gov.au/Industry/Telco/Reconnecting-the-customer/Public-inquiry/final-report-reconnecting-the-customer-acma)[[5]](#footnote-5), the ACMA should include an evaluation of the CIS to determine the extent to which they assist consumers to understand the key features of their agreement. The research found that the information most retained by consumers is the sales summary, not the more detailed information in the CIS or the more complex T&Cs, and concluded that it is unrealistic to expect any more than a moderate understanding of the elementary features of telecommunications agreements. This finding suggests that the CIS are not as useful for consumers as previously believed, that they may be overly complex and in need of simplification.
2. **Recommendation 2**: Telecommunications retailers should ensure that plans and market offers are kept as simple as possible with clear elementary features that their customers can easily understand.
3. **Recommendation 3:** In order to promote better understanding of telecommunications contracts, more work is required by the industry to understand consumer needs during the sale transaction and lifecycle of a contract, and to tailor and time delivery of core information for maximum comprehensibility. The research identifies that a key enabler to understanding information is the consumer’s perception of its relevance. If the consumer considers the information to be relevant, then it is more readily understood.
4. **Recommendation 4**: It is recommended that telecommunications retailers adopt a proactive strategy by conducting follow up courtesy contact with new customers after three billing cycles to see if the customer needs further assistance in understanding their obligations. Consumers overestimate their ability to solve problems arising from their telecommunications contracts and their understanding of their agreement. The research found that confidence is not a strong predictor of ability to apply the information to solve problems, should they arise.
5. **Recommendation 5:** Despite the small sample size, this research finds a need for expert independent research to provide an evidence base when introducing or reviewing customer information obligations, to reduce the risk of inaccurate presumptions about consumer behavior informing regulatory obligations. The study has found that regulators, consumer advocates and industry have different perceptions of consumer understanding of features of their telecommunications agreement. Consumer understanding is at times underestimated by consumer advocates, overestimated by the industry, with regulators hovering in between.

# Conclusion and Future Research

Informed consumers are the cornerstone of a competitive and effective marketplace. Keeping consumers informed in the 21st century is a rapidly shifting challenge, particularly in the telecommunications sector where increased product complexity and choice dominate the consumer landscape.

Overall, the study shows that consumers generally struggle with the complexity involved when attempting to solve problems with telecommunications contracts. The study also challenges long-held assumptions about consumer behaviour, understanding and knowledge when entering into telecommunications agreements. The results provide an opportunity for collaboration between regulators, industry and consumer advocates to increase consumers’ understanding of their rights and obligations in telecommunications contracts.

This study makes several important findings. First, the results show that consumers overestimate their ability to solve problems with telecommunications contracts. In fact, the higher consumers rated their understanding and ability to solve problems, the less likely they were to correctly answer questions about their contract. The study also showed the difficulties consumers face in recalling information within their contract. This result found that three weeks after being given information about a sample contract, none of the respondents were able to answer more than half of the questions correctly. This result was the same regardless of the level of detail that the consumer was provided with initially. In the study, some customers were given a sales summary, a second group was given a Critical Information Summary and the sales summary, and the third group was given both summaries plus the full legal terms and conditions.

Interestingly, the study found that consumers who were given terms and conditions understood less than those who were given a sales summary, Critical Information Summary, or both. This is surprising as one might expect that consumers who were given terms and conditions would at least understand the key points of their rights and obligations even if they may not understand the finer legal points. This coincided with the finding that consumers who rated information as more relevant to their needs answered more questions correctly.

These results suggest several things. First, providing consumers with even moderate amounts of information does not mean that they will retain this information, even over a relatively short time period (3 weeks). Second, the current approach of providing information about the contract only at the sign-up stage hinders consumers’ understanding of their rights and obligations. Third, the findings suggest that customer communications should only include information of relevance, as the inclusion of irrelevant information negatively affects understanding.

The study also found that regulators, industry and consumer advocates hold varying assumptions about consumers’ understanding of communication contracts. The study showed that regulators were the most accurate in assessing consumers' actual understanding, while the industry significantly over estimated consumer understanding. Interestingly, consumer advocates slightly underestimated consumer understanding. The disparity between these views suggests that stakeholders should collaborate to ensure that future information disclosure requirements better meet consumers’ level of understanding.

Future research should monitor consumer understanding of telecommunications agreements, particularly as agreements become more complex and multi-product focused. One approach would be to test the efficacy of a double opt-in opportunity for consumers to give them time away from the pressure of the sales experience to process their agreement, before the finalisation of the sale. This may or may not address the various situational and cognitive biases held by consumers as part of the current instantaneous sign up process.

Future research could also explore whether providing consumers with information over the life cycle of the contract, rather than just at sign-up, increases consumers’ understanding and problem solving abilities. In addition, future work could also test the effectiveness of a shorter Critical Information Summary, as recommended by Harrison et al (2012). The findings on the importance of providing relevant information points to the potential benefits of initiatives such as Midata in the UK, which allow consumers to use their own data and usage patterns to find products that suit their needs, when needed[[6]](#footnote-6). Such tools can be empowering, if carefully designed with end user requirements in mind. By using tools that increase engagement in the decision making process, consumers will be better informed about the products they are purchasing.

As the telecommunications market continues to evolve, consumers must be properly informed about their rights and obligations in telecommunications agreements. The study demonstrates the need for caution around assumptions made about consumer ability to understand telecommunications contracts and solve problems. Consumers need more than simply disclosure at sign-up, often involving large quantities of information. Consumers need clear, relevant, repeated and timely communications in order to increase their problem-solving skills and understanding of telecommunications contracts. Any changes to consumer disclosure and contract requirements should reflect this increased understanding of consumer needs.

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# Technical appendix

The analysis was conducted in the R programming language. Demographic, as well as self-assessed key concepts, were controlled for. The demographic factors considered were:

* Gender
* Country of origin
* Language
* Aboriginal or Torres Strait Islander
* Age
* Highest education level attained
* Employment status and type of work
* Income

Self-assessed factors were also considered using validated scales:

* General self-efficacy
* Satisfaction
* Believability
* Relevance
* Understanding
* Financial literacy

Descriptive statistics for each of these factors were found. ANOVAs were performed for differences of means, along with post-hoc analyses (Bartlett’s test and Bonferroni comparison of means), where appropriate.

After 24 hours (Stage 2), a series of questions (Questionnaire Two) were asked to determine the participants’ understanding of their telecommunications agreement.

After 3 weeks (Stage 3), the same questions (denoted common questions) were asked, as well as additional questions.

Since the manifest response variables are dichotomous, the normality assumption required for structural equation modeling (SEM) is not satisfied. Thus, a SEM model cannot be applied (Blunch 2008, p. 224). A twofold regression model was employed, firstly on the common questions between the two time points, and secondly on all questions asked at Stage 3.

To compare the responses to the common questions asked at Stage 2 and Stage 3, the mean difference of total common questions asked was calculated. A regression analysis was performed controlling for the demographic factors, as well as the self-assessed factors.

Similarly, a multiple linear regression analysis was performed on the mean number of questions answered correctly at Stage 3 (including the additional questions that were not asked at Stage 2).

For both regression models, a step algorithm was applied via the step() function in R to maximize the Akaike Information Criterion.

In regression analysis, the smaller the sample for a particular factor, the larger the standard error of the estimated difference for that factor. Thus, for particularly small samples, the standard error can be so large as to render any inference about the difference of that factor from the control meaningless (see, for example, regression texts such as Montgomery, et al. (2012), or Sheather (2009)). Hence, where explanatory variables were found to be largely in one category, with very small numbers in other categories, these were collapsed into one dichotomous variable.

## Results

### Descriptive statistics: demographic factors

#### Gender

Table : Gender counts by group

| Counts | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| Female | 72 | 67 | 55 | 194 |
| Male | 49 | 53 | 66 | 168 |
| Total | 121 | 120 | 121 | 362 |

Table : Gender proportions by group

| Proportions | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| Female | 19.89 | 18.51 | 15.19 | 53.59 |
| Male | 13.54 | 14.64 | 18.23 | 46.41 |
| Total | 33.43 | 33.15 | 33.43 | 100 |

In Table 10 we see that 194 females and 168 males participated at both time points. By Table 10, we see that similar proportions of each gender were assigned to each knowledge group.

#### Country of origin

Table : Counts for country of origin by group

| Counts | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| Australia | 77 | 90 | 95 | 262 |
| Other | 41 | 28 | 25 | 94 |
| Prefer not to say | 3 | 2 | 1 | 6 |
| Total | 121 | 120 | 121 | 362 |

Table : Proportions for country of origin by group

| Proportions | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| Australia | 21.27 | 24.86 | 26.24 | 72.38 |
| Other | 11.33 | 7.73 | 6.91 | 25.97 |
| Prefer not to say | 0.83 | 0.55 | 0.28 | 1.66 |
| Total | 33.43 | 33.15 | 33.43 | 100 |

We also considered the country of birth of the participants. In Table 11, we see that 262 participants told us they were born in Australia, and 6 participants chose not to declare their country of birth. 34 participants were born in England, and the rest of the participants came from different countries.

By Table 12, we see that approximately three quarters of participants (72.38 per cent) identify as Australian. In Table 13, a breakdown of the number of participants from all countries is provided.

Table : Counts for all countries

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Australia 262 | Austria 2 | Bosnia 1 | Canada 2 | China 2 | Czech 1 |
| England 34 | Finland 2 | France 2 | Germany 6 | Greece 1 | Hong Kong 1 |
| India 6 | Indonesia 1 | Italy 1 | Latvia 1 | Lebanon 1 | Malaysia 6 |
| New Zealand 5 | Philippines 4 | Romania 1 | Scotland 2 | Serbia 1 | South Africa 3 |
| Sri Lanka 1 | Trinidad 1 | Ukraine 3 | Vietnam 1 | Zimbabwe 2 | Prefer not to say 6 |

Here we have a similar situation to that of language spoken at home, in that there are many categories for which we have only one participant. That is, there is only one participant from Vietnam and one from Trinidad. In order to keep the model simple, we reduced this question to whether the participant was born in Australia or not (or preferred not to say).

#### Language

Table : Counts for primary language spoken by group

| Counts | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| English | 111 | 116 | 116 | 343 |
| Other | 10 | 4 | 5 | 19 |
| Total | 121 | 120 | 121 | 362 |

Table : Proportions for primary language spoken by group

| Proportions | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| English | 30.66 | 32.04 | 32.04 | 94.75 |
| Other | 2.76 | 1.1 | 1.38 | 5.25 |
| Total | 33.43 | 33.15 | 33.43 | 100 |

As noted in Table 14, English was the main language spoken at home for 343 of the 362 participants, 19 participants spoke a language other than English at home, including 2 participants who chose not to say. Table 15 shows that approximately 95 per cent of participants (94.75) speak English as a primary language.

There were three participants that spoke Cantonese, and two participants that spoke each of Vietnamese, Mandarin, Russian, and Telugu. There were several languages that only one participant spoke, viz., Croatian, French, Greek, Hokkien, Tamil, and Zulu. As the study was interested in investigating general comprehension of telecommunications agreements, amongst the broad population, we did not specifically seek particular language groups.

Given the small numbers of each language spoken other than English, we chose to consider language dichotomously. That is, we simplified the question of language to whether or not English was the primary spoken language at home. This enables us to perform analysis of variance, and by extension regression analysis, since we now have two samples of 343 primary English speakers and 19 others who primarily speak a language other than English.

Roughly the same numbers of participants were assigned to each information group, based on language.

Aboriginal or Torres Strait Islander

Table : Aboriginal or Torres Strait Islander Status by group

|  | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| Aboriginal or Torres Strait Islander | 0 | 0 | 1 | 1 |
| No | 121 | 120 | 120 | 361 |
| Total | 121 | 120 | 121 | 362 |

Only one participant out of 362 identified as Aboriginal, and no participants identified as Torres Strait Islander

Since there is no variation over a single number, we cannot make inference about the standard deviation of consumers who identify as Aboriginal or Torres Strait Islander. The standard deviation of the population is then assumed to be equal to those who do not identify as Aboriginal or Torres Strait Islander, which may not be true, introducing a flaw in the assumptions of the model. Furthermore, within a regression model, a small sample size causes a large standard error for the estimated coefficient for that particular factor. So much so, in fact, that it is not practicable to make inference about the effect of a consumers’ Aboriginal or Torres Strait Islander status on the number of questions correctly answered. It must, therefore, be left for future research to answer whether this factor affects consumers’ understanding of their telecommunications contract.

#### Age

Table : Counts of age by group

| Counts | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| 18-24 | 1 | 0 | 0 | 1 |
| 25-34 | 12 | 17 | 22 | 51 |
| 35-44 | 26 | 21 | 17 | 64 |
| 45-54 | 20 | 16 | 27 | 63 |
| 55-64 | 27 | 37 | 33 | 97 |
| 65-74 | 31 | 24 | 20 | 75 |
| 75+ | 4 | 4 | 2 | 10 |
| Prefer not to say | 0 | 1 | 0 | 1 |
| Total | 121 | 120 | 121 | 362 |

Table : Proportions of age by group

| Proportions | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| 18-24 | 0.28 | 0 | 0 | 0.28 |
| 25-34 | 3.31 | 4.7 | 6.08 | 14.09 |
| 35-44 | 7.18 | 5.8 | 4.7 | 17.68 |
| 45-54 | 5.52 | 4.42 | 7.46 | 17.4 |
| 55-64 | 7.46 | 10.22 | 9.12 | 26.8 |
| 65-74 | 8.56 | 6.63 | 5.52 | 20.72 |
| 75+ | 1.1 | 1.1 | 0.55 | 2.76 |
| Prefer not to say | 0 | 0.28 | 0 | 0.28 |
| Total | 33.43 | 33.15 | 33.43 | 100 |

Of particular note is that 50 per cent of participants were aged 55 and over (Table 18). Only 1 participant was under 25 (Table 17). Thus, our findings provide a better reflection of an older consumer’s understanding of their telecommunications agreement, than that of a younger consumer.

**Highest education level attained**

Table : Counts of highest education level attained by group

| Counts | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| Bachelor's degree | 27 | 32 | 37 | 96 |
| Doctorate degree/PhD | 2 | 1 | 2 | 5 |
| High school graduate | 23 | 20 | 16 | 59 |
| Master's degree | 9 | 5 | 8 | 22 |
| Professional degree | 4 | 1 | 2 | 7 |
| Some high school | 11 | 13 | 14 | 38 |
| Trade/technical/vocational training | 29 | 41 | 37 | 107 |
| University diploma | 16 | 7 | 5 | 28 |
| Total | 121 | 120 | 121 | 362 |

Table : Proportions of highest education level attained by group

| Proportions | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| Bachelor's degree | 7.46 | 8.84 | 10.22 | 26.52 |
| Doctorate degree/PhD | 0.55 | 0.28 | 0.55 | 1.38 |
| High school graduate | 6.35 | 5.52 | 4.42 | 16.3 |
| Master's degree | 2.49 | 1.38 | 2.21 | 6.08 |
| Professional degree | 1.1 | 0.28 | 0.55 | 1.93 |
| Some high school | 3.04 | 3.59 | 3.87 | 10.5 |
| Trade/technical/vocational training | 8.01 | 11.33 | 10.22 | 29.56 |
| University diploma | 4.42 | 1.93 | 1.38 | 7.73 |
| Total | 33.43 | 33.15 | 33.43 | 100 |

Almost a third of participants were undertaking trade, technical, or vocational training. A similar number were enrolled in a Bachelor’s degree (Table 19). Several participants had only completed education at high school level or lower. No participants chose not to say what their education level was (Table 19).

#### Employment status and type of work

Table : Counts for employment status by group

| Counts | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| Full-time carer | 0 | 1 | 1 | 2 |
| Full-time employed for wages | 32 | 35 | 40 | 107 |
| Homemaker | 6 | 14 | 7 | 27 |
| Out of work and looking for work | 3 | 3 | 5 | 11 |
| Out of work but not currently looking for work | 1 | 2 | 0 | 3 |
| Part-time employed for wages | 29 | 11 | 25 | 65 |
| Prefer not to say | 0 | 0 | 1 | 1 |
| Retired | 32 | 36 | 28 | 96 |
| Self employed | 8 | 12 | 4 | 24 |
| Student | 3 | 2 | 4 | 9 |
| Unable to work | 7 | 4 | 6 | 17 |
| Total | 121 | 120 | 121 | 362 |

Table : Proportions for employment status by group

| Proportions | SS | SS\_CIS | SS\_CIS\_TC | Total |
| --- | --- | --- | --- | --- |
| Full-time carer | 0 | 0.28 | 0.28 | 0.55 |
| Full-time employed for wages | 8.84 | 9.67 | 11.05 | 29.56 |
| Homemaker | 1.66 | 3.87 | 1.93 | 7.46 |
| Out of work and looking for work | 0.83 | 0.83 | 1.38 | 3.04 |
| Out of work but not currently looking for work | 0.28 | 0.55 | 0 | 0.83 |
| Part-time employed for wages | 8.01 | 3.04 | 6.91 | 17.96 |
| Prefer not to say | 0 | 0 | 0.28 | 0.28 |
| Retired | 8.84 | 9.94 | 7.73 | 26.52 |
| Self employed | 2.21 | 3.31 | 1.1 | 6.63 |
| Student | 0.83 | 0.55 | 1.1 | 2.49 |
| Unable to work | 1.93 | 1.1 | 1.66 | 4.7 |
| Total | 33.43 | 33.15 | 33.43 | 100 |

Almost a third of participants were employed full time (Table 22). A similar number of participants were retired. The next largest group were part-time employees. Only one participant chose not to say what their employment status was (Table 21).

#### Income

Table : Counts for income by group

| Counts | SS | SS\_CIS | SS\_CIS\_TC | total |
| --- | --- | --- | --- | --- |
| <10K | 9 | 8 | 8 | 25 |
| >=10K<20K | 3 | 8 | 5 | 16 |
| >=20K<30K | 17 | 12 | 24 | 53 |
| >=30K<40K | 3 | 0 | 4 | 7 |
| >=40K<50K | 1 | 2 | 0 | 3 |
| >=50K<60K | 0 | 1 | 0 | 1 |
| >=60K<70K | 3 | 1 | 2 | 6 |
| >=70K<80K | 21 | 23 | 14 | 58 |
| >=80K<90K | 14 | 9 | 9 | 32 |
| >=90K<100K | 11 | 8 | 11 | 30 |
| >=100K<120K | 5 | 6 | 6 | 17 |
| >=120K<140K | 5 | 10 | 4 | 19 |
| >=140K<160K | 4 | 4 | 5 | 13 |
| >=160K<180K | 4 | 7 | 7 | 18 |
| >=180K<200K | 3 | 3 | 6 | 12 |
| 200K+ | 1 | 0 | 2 | 3 |
| Prefer not to say | 17 | 18 | 14 | 49 |
| Total | 121 | 120 | 121 | 362 |

Table : Proportions for income by group

| Proportions | SS | SS\_CIS | SS\_CIS\_TC | total |
| --- | --- | --- | --- | --- |
| <10K | 2.49 | 2.21 | 2.21 | 6.91 |
| >=10K<20K | 0.83 | 2.21 | 1.38 | 4.42 |
| >=20K<30K | 4.7 | 3.31 | 6.63 | 14.64 |
| >=30K<40K | 0.83 | 0 | 1.1 | 1.93 |
| >=40K<50K | 0.28 | 0.55 | 0 | 0.83 |
| >=50K<60K | 0 | 0.28 | 0 | 0.28 |
| >=60K<70K | 0.83 | 0.28 | 0.55 | 1.66 |
| >=70K<80K | 5.8 | 6.35 | 3.87 | 16.02 |
| >=80K<90K | 3.87 | 2.49 | 2.49 | 8.84 |
| >=90K<100K | 3.04 | 2.21 | 3.04 | 8.29 |
| >=100K<120K | 1.38 | 1.66 | 1.66 | 4.7 |
| >=120K<140K | 1.38 | 2.76 | 1.1 | 5.25 |
| >=140K<160K | 1.1 | 1.1 | 1.38 | 3.59 |
| >=160K<180K | 1.1 | 1.93 | 1.93 | 4.97 |
| >=180K<200K | 0.83 | 0.83 | 1.66 | 3.31 |
| 200K+ | 0.28 | 0 | 0.55 | 0.83 |
| Prefer not to say | 4.7 | 4.97 | 3.87 | 13.54 |
| Total | 33.43 | 33.15 | 33.43 | 100 |

A substantial proportion, 49 out of 362, of participants chose not to state their income category (Table 24). Given there were so many retirees, unemployed, and students involved, it is unsurprising that a quarter of participants reported incomes of less than $50,000 (Table 24).

### Descriptive statistics: key concepts

Table : Summary statistics for each key concept

| All | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Self-efficacy | 10 | 34 | 38 | 37.45 | 41 | 50 | 6.28 |
| Satisfaction | 4 | 12.25 | 15 | 14.8 | 16 | 20 | 3.18 |
| Believability | 3 | 9 | 11 | 10.92 | 12 | 15 | 2.54 |
| Relevance | 3 | 9 | 12 | 11.24 | 13 | 15 | 2.93 |
| Understanding | 6 | 14 | 15 | 15.44 | 17 | 25 | 2.58 |
| Financial literacy | 9 | 30 | 33 | 32.59 | 35 | 45 | 4.13 |

Table 25 provides overall numerical summaries of each of the self-assessed key concepts. Below, in Table 26, Table 27, and Table 28, a breakdown by group of numerical summaries for each of the knowledge groups is provided.

Table : Summary statistics for each key concept for the SS knowledge group

| SS group | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Self-efficacy | 18 | 35 | 38 | 37.53 | 41 | 50 | 6.48 |
| Satisfaction | 7 | 13 | 15 | 15.01 | 16 | 20 | 3.14 |
| Believability | 3 | 9 | 11 | 10.93 | 12 | 15 | 2.48 |
| Relevance | 3 | 9 | 12 | 11.21 | 12 | 15 | 2.83 |
| Understanding | 9 | 14 | 15 | 15.36 | 17 | 22 | 2.59 |
| Financial literacy | 9 | 31 | 33 | 32.54 | 35 | 45 | 4.19 |

Table : Summary statistics for each key concept for the SS\_CIS knowledge group

| SS\_CIS group | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Self-efficacy | 21 | 34 | 38 | 37.35 | 40 | 50 | 6.16 |
| Satisfaction | 8 | 14 | 16 | 15.38 | 17 | 20 | 2.81 |
| Believability | 4 | 9 | 11 | 11 | 12 | 15 | 2.52 |
| Relevance | 3 | 11 | 12 | 11.9 | 14 | 15 | 2.74 |
| Understanding | 6 | 13 | 15 | 15.08 | 16 | 25 | 2.8 |
| Financial literacy | 18 | 30 | 32 | 32.33 | 35 | 45 | 4.39 |

Table : Summary statistics for each key concept for the SS\_CIS\_TC knowledge group

| SS\_CIS\_TC group | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Self-efficacy | 10 | 33 | 38 | 37.48 | 41 | 50 | 6.23 |
| Satisfaction | 4 | 12 | 15 | 14.02 | 16 | 20 | 3.42 |
| Believability | 3 | 9 | 11 | 10.82 | 12 | 15 | 2.64 |
| Relevance | 3 | 9 | 11 | 10.62 | 12 | 15 | 3.07 |
| Understanding | 11 | 14 | 16 | 15.88 | 17 | 25 | 2.28 |
| Financial literacy | 18 | 31 | 33 | 32.88 | 35 | 45 | 3.8 |

We now consider each of the key concepts in detail.

#### General self-efficacy

Table : Summary statistics of self-efficacy

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SS | 18 | 35 | 38 | 37.53 | 41 | 50 | 6.48 |
| SS\_CIS | 21 | 34 | 38 | 37.35 | 40 | 50 | 6.16 |
| SS\_CIS\_TC | 10 | 33 | 38 | 37.48 | 41 | 50 | 6.23 |
| All | 10 | 34 | 38 | 37.45 | 41 | 50 | 6.28 |

Since general self-efficacy was measured by 10 questions on a scale of 1 – 5, the highest score a participant could achieve was 50. Across all knowledge groups, the median score for general self-efficacy was 38 (Table 29). In all knowledge groups there was at least one participant who rated themselves at the maximum (50) for self-efficacy. That is, they answered all 10 self-efficacy questions with a response of 5 (the maximum score for each question).

Table : ANOVA for difference between mean self-efficacy scores by knowledge groups

|  | Df | Sum Sq | Mean Sq | F value | Pr(>F) |
| --- | --- | --- | --- | --- | --- |
| Group | 2 | 2.1 | 1.027 | 0.0259 | 0.9744 |
| Residuals | 359 | 14223.6 | 39.620 |  |  |

In Table 30 we see the results of an ANOVA test for different means of self-efficacy composite scores by group. In this case, we have 97.44 per cent probability of observing the F-value 0.0259 under the assumption that all means are equal.

Description: Macintosh HD:Users:puzzlebox:Dropbox:telco project:Deakin project:tables:key_concepts:self.efficacy.sum_boxplot.pdf

Figure : Boxplot of self-efficacy scores for each knowledge group

A visual inspection of a boxplot comparison (Figure 3) supports the results of the ANOVA test; there is little difference between the self-efficacy scores between the knowledge groups.

Thus, we conclude that there is no significant difference in mean composite score for self-efficacy between the groups.

#### Satisfaction

Table : Summary statistics for satisfaction score by groups

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SS | 7 | 13 | 15 | 15.01 | 16 | 20 | 3.14 |
| SS\_CIS | 8 | 14 | 16 | 15.38 | 17 | 20 | 2.81 |
| SS\_CIS\_TC | 4 | 12 | 15 | 14.02 | 16 | 20 | 3.42 |
| All | 4 | 12.25 | 15 | 14.8 | 16 | 20 | 3.18 |

The median values for satisfaction score (4 questions with a maximum score of 5 each) was slightly different between the knowledge groups. Those in the SS\_CIS group reported a median satisfaction score of 15, whereas the other two knowledge groups reported a median satisfaction score of 16 (Table 31). On average, participants reported a satisfaction score of 14.8 ± 3.18 points out of 20.

To see whether there was a significant difference between groups’ average satisfaction score, an ANOVA test was performed.

Table : ANOVA for difference in mean satisfaction between groups

|  | Df | Sum Sq | Mean Sq | F value | Pr(>F) |
| --- | --- | --- | --- | --- | --- |
| Group | 2 | 119 | 59.40 | 6.05 | 0.0026 |
| Residuals | 359 | 3524 | 9.82 |  |  |

The ANOVA presented in Table 32 suggests there is a significant difference between the knowledge groups’ satisfaction score. That is, the probability of observing an F-value of 6.05 is 0.0026 under the assumption that the means for satisfaction are the same across the knowledge groups.

Description: Macintosh HD:Users:puzzlebox:Dropbox:telco project:Deakin project:tables:key_concepts:satisfaction.sum_boxplot.pdf

Figure : Boxplot of satisfaction scores for knowledge groups

A visual inspection of the boxplots of the different knowledge groups’ satisfaction scores provided in Figure 4 is in agreement with the results of the ANOVA.

Thus, a post-hoc analysis was performed. The variances of the three knowledge groups are assumed to be equal (Bartlett’s test, p = 0.0969). There was no significant difference between the mean satisfaction score of the SS and the SS\_CIS groups (Bonferroni score = 0.49). However, there was a significant difference between the SS and the SS\_CIS\_TC groups (Bonferroni score 0.03, 95 per cent CI = [0.15, 1.81]) and the SS\_CIS and SS\_CIS\_TC groups (Bonferroni score < 0.00, 95 per cent CI = [0.56, 2.15]).

#### Believability

Table : Summary statistics for believability score by groups

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SS | 3 | 9 | 11 | 10.93 | 12 | 15 | 2.48 |
| SS\_CIS | 4 | 9 | 11 | 11 | 12 | 15 | 2.52 |
| SS\_CIS\_TC | 3 | 9 | 11 | 10.82 | 12 | 15 | 2.64 |
| All | 3 | 9 | 11 | 10.92 | 12 | 15 | 2.54 |

The median score for believability was the same (11) across all groups (Table 33). On average, the believability score was 10.92 ± 2.5 points out of 15 for all groups. Three questions were asked, each with a scale of 5. So, the maximum believability score possible is 15. Since this is in the range of Table 33, at least one participant answered 5 for all believability questions.

An ANOVA was performed to see if there was a significant difference between the knowledge groups’ believability score (Table 34). In this case, we have 85.50 per cent probability of observing the F-value 0.157 under the assumption that all means are equal.

Table : ANOVA for difference between mean believability scores by knowledge group

|  | Df | Sum Sq | Mean Sq | F value | Pr(>F) |
| --- | --- | --- | --- | --- | --- |
| Group | 2 | 2 | 1.021 | 0.157 | 0.855 |
| Residuals | 359 | 2332 | 6.494 |  |  |

A visual inspection of a boxplot comparison (Figure 5) supports the results of the ANOVA test; there is little difference between the believability scores between the knowledge groups.

Description: Macintosh HD:Users:puzzlebox:Dropbox:telco project:Deakin project:tables:key_concepts:believability.sum_boxplot.pdf

Figure : Boxplot of believability scores for knowledge groups

Thus, we conclude that there is no significant difference between the knowledge groups’ believability scores.

#### Relevance

Table : Summary statistics for relevance score by groups

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SS | 3 | 9 | 12 | 11.21 | 12 | 15 | 2.83 |
| SS\_CIS | 3 | 11 | 12 | 11.9 | 14 | 15 | 2.74 |
| SS\_CIS\_TC | 3 | 9 | 11 | 10.62 | 12 | 15 | 3.07 |
| All | 3 | 9 | 12 | 11.24 | 13 | 15 | 2.93 |

The median number of questions asked was different between the knowledge groups. The SS\_CIS \_TC group had a median score of 11, whereas the other two knowledge groups reported a median score of 12 (Table 35). On average, the participants reported a relevance score of 11.24 ± 2.93 out of 15.

An ANOVA was performed to see if there was a significant difference between the knowledge groups’ believability score (Table 36).

Table : ANOVA for difference between mean relevance scores by knowledge groups

|  | Df | Sum Sq | Mean Sq | F value | Pr(>F) |
| --- | --- | --- | --- | --- | --- |
| Group | 2 | 99.9 | 49.47 | 5.938 | 0.0029 |
| Residuals | 359 | 2991.1 | 8.33 |  |  |

The ANOVA presented in Table 36 suggests there is a significant difference between the knowledge groups’ relevance score. That is, the probability of observing an F-value of 5.938 is 0.0029 under the assumption that the means for relevance are the same across the knowledge groups.

A visual inspection of the knowledge groups’ boxplots (Figure 6) for relevance confirms the result of the ANOVA.

Description: Macintosh HD:Users:puzzlebox:Dropbox:telco project:Deakin project:tables:key_concepts:relevance.sum_boxplot.pdf

Figure : Boxplots of relevance score for knowledge groups

Thus, we performed a post-hoc analysis to see which groups differed by mean relevance score. The variances of the three groups are assumed to be equal (Bartlett’s test, p = 0.43). There was no significant difference between the mean relevance for the SS and SS\_CIS groups (Bonferroni score = 0.08) or the SS and SS\_CIS\_TC groups (Bonferroni score = 0.19). The significant difference of means was between the SS\_CIS and SS\_CIS\_TC groups (Bonferroni score = 0.001, 95 per cent CI = [0.54, 2.02]).

#### Understanding

Table : Summary statistics for understanding score by groups

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SS | 9 | 14 | 15 | 15.36 | 17 | 22 | 2.59 |
| SS\_CIS | 6 | 13 | 15 | 15.08 | 16 | 25 | 2.8 |
| SS\_CIS\_TC | 11 | 14 | 16 | 15.88 | 17 | 25 | 2.28 |
| All | 6 | 14 | 15 | 15.44 | 17 | 25 | 2.58 |

The median score for understanding was 15 out of 25 points (5 questions with a maximum of 5 each). There was a slight difference between the groups, with the group provided with the terms and conditions (SS\_CIS\_TC) reporting a median understanding score of 16, with the other two knowledge groups reporting a median of 15 (Table 37). On average the understanding score was 15.44 ± 2.58 points out of 25.

An ANOVA test (Table 38) was performed on the understanding score to see if there was a difference in means between groups, which suggested that there was a significant difference between the knowledge groups’ understanding score. That is, the probability of observing an F-value of 3.03 is 0.0496 under the assumption that the means for understanding are the same across the knowledge groups.

Table : ANOVA for difference between mean understanding scores by knowledge groups

|  | Df | Sum Sq | Mean Sq | F value | Pr(>F) |
| --- | --- | --- | --- | --- | --- |
| Group | 2 | 39.9 | 19.927 | 3.03 | 0.0496 |
| Residuals | 359 | 2361.2 | 6.577 | - | - |

A visual inspection of the boxplots of understanding score by groups in Figure 7 shows agrees with the results of the ANOVA.

Description: Macintosh HD:Users:puzzlebox:Dropbox:telco project:Deakin project:tables:key_concepts:understanding.sum_boxplot.pdf

Figure : Boxplots of understanding score by knowledge groups

Thus, a post-hoc analysis was performed. Equal variance of the knowledge groups’ understanding scores is assumed (Bartlett’s test, p = 0.9). There was no difference between the SS and SS\_CIS groups (Bonferroni score = 0.63) and the SS and SS\_CIS\_TC groups (Bonferroni score = 0.15). However, there was a difference between the SS\_CIS and SS\_CIS\_TC groups (Bonferroni score = 0.02, 95 per cent CI = [-1.14, 0.10]).

#### Financial literacy

Table : Summary statistics for financial literacy scores by groups

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SS | 9 | 31 | 33 | 32.54 | 35 | 45 | 4.19 |
| SS\_CIS | 18 | 30 | 32 | 32.33 | 35 | 45 | 4.39 |
| SS\_CIS\_TC | 18 | 31 | 33 | 32.88 | 35 | 45 | 3.8 |
| All | 9 | 30 | 33 | 32.59 | 35 | 45 | 4.13 |

The median score for self-reported financial literacy was 33 out of 45 points (9 questions with a maximum of 5 each). There was a slight difference between the groups, with the group provided with the critical information summary (SS\_CIS) reporting a median financial literacy score of 32, with the other two knowledge groups reporting a median of 33 (Table 39). On average the financial literacy score was 32.59 ± 4.13 points out of 45.

An ANOVA test was performed on the financial literacy score to see if there was a difference in means between groups.

Table : ANOVA for difference between mean financial literacy score between groups

|  | Df | Sum Sq | Mean Sq | F value | Pr(>F) |
| --- | --- | --- | --- | --- | --- |
| Group | 2 | 19 | 9.358 | 0.548 | 0.579 |
| Residuals | 359 | 6131 | 17.078 | - | - |

Since the probability of observing the F-value of 0.548 is 0.579 under the assumption of equal means, the ANOVA suggests there is no difference between the means of the knowledge groups’ financial literacy scores.

Description: Macintosh HD:Users:puzzlebox:Dropbox:telco project:Deakin project:tables:key_concepts:financial.literacy.sum_boxplot.pdf

Figure : Boxplots for financial literacy by group

A visual inspection of the boxplots provided by Figure 8 supports the results of the ANOVA.

Thus, we conclude there is no significant difference between the financial literacy scores between knowledge groups.

### Analysis of average number of common questions answered correctly in Stages 2 and 3

Table : Summary statistics on the difference between correctly answered questions   
at Stage 3 and at Stage 2

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SS | -6 | -1 | 0 | 0.16 | 1 | 4 | 1.52 |
| SS\_CIS | -5 | -1 | 0 | -0.11 | 1 | 5 | 1.75 |
| SS\_CIS\_TC | -5 | -1 | 0 | 0.07 | 1 | 5 | 1.78 |
| All | -6 | -1 | 0 | 0.04 | 1 | 5 | 1.69 |

Participants answered 0.04 ± 1.69 common questions correctly at Stage 3 as opposed to correctly answered questions at Stage 2 (Table 41). Common questions are the questions that were asked at both Stage 2 and at Stage 3.

Table 42: Significant factors from the difference of common questions model

| Factors | Estimate | Std. Error | t value | Pr(>|t|) | 2.50 per cent | 97.50 per cent |
| --- | --- | --- | --- | --- | --- | --- |
| (Intercept) | 0.62 | 0.35 | 1.76 | 0.08 | -0.07 | 1.31 |
| Language other | -0.81 | 0.4 | -2.04 | 0.04 | -1.58 | -0.03 |
| Relevance | -0.05 | 0.03 | -1.57 | 0.12 | -0.11 | 0.01 |

Table 42 presents the regression model for the difference of common questions asked across Stage 2 and Stage 3. There was no significant difference between the three knowledge groups in the number of common questions correctly answered in Stage 2 (24 hours) and Stage 3 (3 weeks). There was little difference between the common questions answered correctly at the two time points. Table 42 provides a regression model for the difference in common questions correctly answered between Stage 3 and Stage 2.

The model suggests, with 95 per cent confidence, that the consumers would answer somewhere between -0.07 and 1.31 more questions correctly at Stage 3 than at Stage 2 (Table 42: 95 per cent CI (confidence interval) = [-0.07, 1.31]). The model suggests that primary language and the self-assessed relevance total affect the number of common questions answered over the two time points.

If a consumer spoke a primary language other than English, the model suggests they would answer between -1.58 and -0.03 fewer questions correct at Stage 3, as compared to Stage 2 (Table 42: 95 per cent CI = [-1.58, -0.03]). For each point in a consumers’ self-assessed relevance score, the model predicts that consumers would answer between –0.11 and 0.01 questions correct as compared to Stage 2 (Table 42: 95 per cent CI = [-0.11, 0.01]).

It is important to note that each of these confidence intervals is small. That is, the 95 per cent confidence prediction of the difference in number of correct common questions is only at most 2 more at Stage 3. Furthermore, each confidence interval contains 0. Hence, we conclude that these differences are not very significant. Indeed, there is no significant difference between the two time points. Thus, we may disregard the questions asked at Stage 2, and consider all questions asked at Stage 3. The advantage of this is that the extra questions, asked in addition to the common questions with Stage 2 can be built into the model.

### Analysis of average number of questions answered correctly in Stage 3

#### All questions

Table : Summary statistics on all questions asked at Stage 3

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SS | 4 | 8 | 10 | 10.25 | 12 | 15 | 2.59 |
| SS\_CIS | 5 | 9 | 12 | 11.64 | 14.25 | 19 | 3.73 |
| SS\_CIS\_TC | 3 | 8 | 11 | 11.2 | 14 | 19 | 3.39 |
| All | 3 | 8 | 11 | 11.03 | 14 | 19 | 3.31 |

On average, participants answered 11 ± 3.31 questions correctly out of a total of 26 questions (Table 43).

Table : Significant factors of regression model for all questions asked at Stage 3

| Factors | Estimate | Std. Error | t value | Pr(>|t|) | 2.50% | 97.50% |
| --- | --- | --- | --- | --- | --- | --- |
| Education Trade/technical/vocational training | -1.49 | 0.45 | -3.3 | 0 | -2.39 | -0.6 |
| Language other | -1.68 | 0.75 | -2.24 | 0.03 | -3.17 | -0.2 |
| Understanding | -0.16 | 0.07 | -2.4 | 0.02 | -0.29 | -0.03 |
| (Intercept) | 8.84 | 2.7 | 3.27 | 0 | 3.53 | 14.15 |
| Group SS\_CIS | 1.17 | 0.41 | 2.89 | 0 | 0.38 | 1.97 |
| Group SS\_CIS\_TC | 1.03 | 0.4 | 2.57 | 0.01 | 0.24 | 1.82 |
| Relevance | 0.28 | 0.06 | 4.74 | 0 | 0.17 | 0.4 |

Table 44 presents the significant factors of the regression model for all questions (26 total) asked at Stage 3 (Table 45). On average, the model predicts that consumers will answer 8.84 questions correctly out of 26. The model indicates that there is a minor difference between the three knowledge groups, with the group provided with critical information summary, but not the terms and conditions (SS\_CIS), performing best.

The model suggests that consumers provided with the critical information summary (SS\_CIS) would answer 1.17 more questions correctly than the group provided only with the sales summary (SS) (Table 44: 95 per cent CI = [0.38, 1.97], p < 0.1). Consumers provided with the terms and conditions (SS\_CIS\_TC) would answer slightly fewer questions correctly, with 1.03 more questions answered correctly than those provided with the sales summary (SS) (Table 44: 95 per cent CI = [0.24, 1.82], p = 0.01). Whilst there is statistically significant differences between the three groups’ total number of correct questions answered, no group answered more than 50 per cent of the questions asked correctly. Thus, it is questionable as to whether there is a truly significant difference between the three knowledge groups, or indeed if these forms of information are the best way of ensuring consumers’ understanding of their telecommunications contracts.

Other factors that affected the number of correctly answered questions at Stage 3 were primary language, education level, relevance, and understanding.

The model suggests that consumers whose primary language is not English would answer -1.68 questions correctly than those whose primary language is English (Table 44: 95 per cent CI = [-3.17, -0.2], p = 0.03).

For education, those whose highest education level is trade, technical, or vocational training are predicted to answer -1.49 questions correctly than those who are educated to Bachelor level (Table 44: 95 per cent CI = [-2.39, -0.6], p < 0.01).

A negative relationship with understanding is predicted by the model, where for every point in understanding a consumer would answer -0.16 questions correctly (Table 44: 95 per cent CI = [-0.29, -0.03], p = 0.02).

Relevance, however, has a positive relationship with the number of questions correctly answered. For every point in relevance score, consumers are predicted to answer 0.28 more questions correctly (Table 44: 95 per cent CI = [0.17, 0.4], p < 0.01).

Table : Regression model for all questions asked at Stage 3

| Factors | Estimate | Std. Error | t value | Pr(>|t|) | 2.50% | 97.50% |
| --- | --- | --- | --- | --- | --- | --- |
| (Intercept) | 8.84 | 2.7 | 3.27 | 0 | 3.53 | 14.15 |
| Education Doctorate degree/PhD | 1.06 | 1.4 | 0.76 | 0.45 | -1.69 | 3.82 |
| Education High school graduate | -0.95 | 0.52 | -1.82 | 0.07 | -1.98 | 0.07 |
| Education Master's degree | -0.63 | 0.72 | -0.87 | 0.38 | -2.06 | 0.79 |
| Education Professional degree | -1.77 | 1.19 | -1.48 | 0.14 | -4.11 | 0.58 |
| Education Some high school | -1.12 | 0.61 | -1.84 | 0.07 | -2.31 | 0.08 |
| Education Trade/technical/vocational training | -1.49 | 0.45 | -3.3 | 0 | -2.39 | -0.6 |
| Education University diploma | -0.44 | 0.68 | -0.66 | 0.51 | -1.77 | 0.89 |
| Employment Full-time employed for wages | 2.24 | 2.18 | 1.03 | 0.31 | -2.05 | 6.53 |
| Employment Homemaker | 1.99 | 2.22 | 0.89 | 0.37 | -2.39 | 6.36 |
| Employment Out of work and looking for work | 2.54 | 2.35 | 1.08 | 0.28 | -2.07 | 7.16 |
| Employment Out of work but not currently looking for work | -2.04 | 2.79 | -0.73 | 0.47 | -7.54 | 3.45 |
| Employment Part-time employed for wages | 1.86 | 2.18 | 0.85 | 0.4 | -2.44 | 6.15 |
| Employment Prefer not to say | 3.14 | 3.74 | 0.84 | 0.4 | -4.22 | 10.51 |
| Employment Retired | 0.63 | 2.18 | 0.29 | 0.77 | -3.65 | 4.91 |
| Employment Self employed | 2.65 | 2.24 | 1.18 | 0.24 | -1.75 | 7.05 |
| Employment Student | 0.66 | 2.41 | 0.27 | 0.78 | -4.08 | 5.4 |
| Employment Unable to work | 2.1 | 2.27 | 0.92 | 0.36 | -2.37 | 6.57 |
| Financial literacy | 0.07 | 0.05 | 1.51 | 0.13 | -0.02 | 0.16 |
| Group SS\_CIS | 1.17 | 0.41 | 2.89 | 0 | 0.38 | 1.97 |
| Group SS\_CIS\_TC | 1.03 | 0.4 | 2.57 | 0.01 | 0.24 | 1.82 |
| Language other | -1.68 | 0.75 | -2.24 | 0.03 | -3.17 | -0.2 |
| Relevance | 0.28 | 0.06 | 4.74 | 0 | 0.17 | 0.4 |
| Self-efficacy | -0.06 | 0.03 | -2.08 | 0.04 | -0.12 | 0 |
| Understanding | -0.16 | 0.07 | -2.4 | 0.02 | -0.29 | -0.03 |

#### Elementary questions

Table : Summary statistics for elementary questions asked at Stage 3

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SS | 3 | 6 | 7 | 7.21 | 8 | 10 | 1.44 |
| SS\_CIS | 3 | 6 | 8 | 7.44 | 9 | 11 | 1.71 |
| SS\_CIS\_TC | 2 | 7 | 7 | 7.39 | 8 | 11 | 1.66 |
| All | 2 | 6 | 8 | 7.34 | 8 | 11 | 1.6 |

Out of 11 elementary questions, participants answered 7.34 ± 1.6 questions correctly, on average (Table 46).

Table : Significant factors from the regression model for elementary questions asked at Stage 3

| Factors | Estimate | Std. Error | t value | Pr(>|t|) | 2.50% | 97.50% |
| --- | --- | --- | --- | --- | --- | --- |
| Income>=100K<120K | -1.05 | 0.48 | -2.19 | 0.03 | -2 | -0.11 |
| Language: other | -0.75 | 0.37 | -2.05 | 0.04 | -1.48 | -0.03 |
| Understanding | -0.08 | 0.03 | -2.57 | 0.01 | -0.15 | -0.02 |
| (Intercept) | 7.86 | 0.75 | 10.49 | 0 | 6.39 | 9.34 |
| Income>=30K<40K | 1.51 | 0.66 | 2.3 | 0.02 | 0.22 | 2.8 |
| Income>=60K<70K | 1.52 | 0.7 | 2.16 | 0.03 | 0.13 | 2.9 |
| Relevance | 0.12 | 0.03 | 4.21 | 0 | 0.06 | 0.18 |

Table 47 presents the significant factors from the regression model for elementary questions (11 total), the full output of which is provided in Table 48. Three factors indicate a decrease and two factors indicate an increase in the average number of correct elementary questions. The model predicts with 95 per cent confidence that a consumer would answer between 6.39 and 9.34 elementary questions correctly (

Table 47: 95 per cent CI = [6.39, 9.34], p < 0.1). Of particular importance is that the model suggests there is no significant difference in the number of correct elementary questions between the three knowledge groups.

On average, the model suggests that consumers whose primary spoken language is not English would answer -0.75 elementary questions correctly (out of 11) than those who speak English primarily (

Table 47: 95 per cent CI = [-1.48, -0.03], p = 0.04).

There was a slight inverse relationship between the self-assessed factor of understanding. That is, for each point in their understanding score (with a maximum of 25), the model suggests consumers would answer -0.08 fewer questions correctly (

Table 47: 95 per cent CI = [-0.15, -0.02], p = 0.01).

There was a slight positive relationship between the self-assessed factor of relevance. The model suggests that for each point in a consumer’s relevance score, they would answer, over average, 0.12 more questions correctly (

Table 47: 95 per cent CI = [0.06, 0.18], p < 0.01).

The other factor that influenced the number of elementary questions answered correctly was income. Interestingly, those in the 100K to 200K income bracket answered -1.05 elementary questions correctly than those on 10K (

Table 47: 95 per cent CI = [-2, -0.11], p = 0.03). However, those who earned between 30K and 40K, as well as 60K and 70K, answer 1.51 and 1.52, respectively, more questions correctly than those on 10K or less (

Table 47: 95 per cent CI = [0.22, 2.8], p = 0.02, 95 per cent CI = [0.13, 2.9], p = 0.03).

Table : Regression model for elementary questions asked at Stage 3

| Factors | Estimate | Std. Error | t value | Pr(>|t|) | 2.50% | 97.50% |
| --- | --- | --- | --- | --- | --- | --- |
| (Intercept) | 7.86 | 0.75 | 10.49 | 0 | 6.39 | 9.34 |
| Income>=100K<120K | -1.05 | 0.48 | -2.19 | 0.03 | -2 | -0.11 |
| Income>=10K<20K | 0.26 | 0.49 | 0.54 | 0.59 | -0.7 | 1.23 |
| Income>=120K<140K | 0.55 | 0.47 | 1.18 | 0.24 | -0.37 | 1.47 |
| Income>=140K<160K | 0.2 | 0.52 | 0.39 | 0.7 | -0.83 | 1.23 |
| Income>=160K<180K | 0.93 | 0.48 | 1.96 | 0.05 | 0 | 1.87 |
| Income>=180K<200K | 0.5 | 0.54 | 0.92 | 0.36 | -0.57 | 1.56 |
| Income>=20K<30K | 0 | 0.37 | 0.01 | 0.99 | -0.73 | 0.74 |
| Income>=30K<40K | 1.51 | 0.66 | 2.3 | 0.02 | 0.22 | 2.8 |
| Income>=40K<50K | 0.86 | 0.93 | 0.92 | 0.36 | -0.97 | 2.69 |
| Income>=50K<60K | 2.36 | 1.56 | 1.52 | 0.13 | -0.7 | 5.43 |
| Income>=60K<70K | 1.52 | 0.7 | 2.16 | 0.03 | 0.13 | 2.9 |
| Income>=70K<80K | 0.3 | 0.37 | 0.82 | 0.41 | -0.42 | 1.02 |
| Income>=80K<90K | 0.19 | 0.41 | 0.45 | 0.65 | -0.62 | 0.99 |
| Income>=90K<100K | 0.43 | 0.41 | 1.03 | 0.31 | -0.39 | 1.24 |
| Income200K+ | -0.46 | 0.94 | -0.49 | 0.62 | -2.31 | 1.38 |
| Income Prefer not to say | 0.48 | 0.38 | 1.26 | 0.21 | -0.27 | 1.22 |
| Language other | -0.75 | 0.37 | -2.05 | 0.04 | -1.48 | -0.03 |
| Relevance | 0.12 | 0.03 | 4.21 | 0 | 0.06 | 0.18 |
| Self-efficacy | -0.02 | 0.01 | -1.68 | 0.09 | -0.05 | 0 |
| Understanding | -0.08 | 0.03 | -2.57 | 0.01 | -0.15 | -0.02 |

#### Intermediate questions

Table : Summary statistics for intermediate questions asked at Stage 3

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SS | 0 | 1 | 2 | 1.87 | 3 | 4 | 1.29 |
| SS\_CIS | 0 | 1 | 3 | 2.77 | 4 | 6 | 1.89 |
| SS\_CIS\_TC | 0 | 1 | 2 | 2.5 | 4 | 6 | 1.78 |
| All | 0 | 1 | 2 | 2.38 | 4 | 6 | 1.71 |

Out of eight intermediate questions, participants answered 2.38 ± 1.71 questions correctly, on average (Table 49).

Table : Significant factors of the regression model for intermediate questions

| Factors | Estimate | Std. Error | t value | Pr(>|t|) | 2.50% | 97.50% |
| --- | --- | --- | --- | --- | --- | --- |
| Group SS\_CIS | 0.72 | 0.21 | 3.43 | 0 | 0.31 | 1.13 |
| Group SS\_CIS\_TC | 0.66 | 0.21 | 3.13 | 0 | 0.25 | 1.07 |
| Relevance | 0.14 | 0.03 | 4.57 | 0 | 0.08 | 0.2 |

Table 50 provides the significant factors from the regression model (Table 51) for the average number of intermediate questions (8 total) correctly answered at Stage 3.

Whilst there was no difference between the three knowledge groups for elementary and advanced, there was a statistically significant difference between the knowledge groups for the intermediate questions. Therefore, it was this subgroup of questions that accounts for the significant difference between knowledge groups when considering all questions. However, since these differences are small, it is arguable as to whether there is a genuinely significant difference between the knowledge groups.

Out of 8 intermediate questions, the model predicts that consumers would only answer 0.49 questions correctly (Table 51: 95 per cent CI = [-3, 3.97]). Those provided with the critical information summary, but not the terms and conditions (SS\_CIS), are predicted to answer 0.72 more questions correctly than those only provided with the sales summary (SS) (Table 50: 95 per cent CI = [0.31, 1.13], p < 0.01). Those also provided with the terms and conditions (SS\_CIS\_TC) are predicted to perform better than the SS group, but not as well as the SS\_CIS group, answering 0.66 more questions correctly than the SS group (Table 50: 95 per cent CI = [0.25, 1.07], p < 0.01).

The self-assessed factor of relevance had a slight positive relationship with the correct number of intermediate questions, with a consumer predicted to answer 0.14 more questions correctly for every point in relevance score (Table 50: 95 per cent CI = [0.08, 0.2], p < 0.1).

Table : Regression model for intermediate questions

| Factors | Estimate | Std. Error | t value | Pr(>|t|) | 2.50% | 97.50% |
| --- | --- | --- | --- | --- | --- | --- |
| (Intercept) | 0.49 | 1.77 | 0.27 | 0.78 | -3 | 3.97 |
| Age25-34 | 0.83 | 1.63 | 0.51 | 0.61 | -2.36 | 4.03 |
| Age35-44 | 1.02 | 1.62 | 0.63 | 0.53 | -2.17 | 4.2 |
| Age45-54 | 1.08 | 1.62 | 0.67 | 0.51 | -2.11 | 4.27 |
| Age55-64 | 1.28 | 1.62 | 0.79 | 0.43 | -1.9 | 4.46 |
| Age65-74 | 0.48 | 1.62 | 0.29 | 0.77 | -2.71 | 3.66 |
| Age75+ | 0.25 | 1.69 | 0.15 | 0.88 | -3.06 | 3.57 |
| Age Prefer not to say | 2.66 | 2.28 | 1.17 | 0.24 | -1.82 | 7.13 |
| Financial literacy | 0.03 | 0.02 | 1.39 | 0.17 | -0.01 | 0.08 |
| Group SS\_CIS | 0.72 | 0.21 | 3.43 | 0 | 0.31 | 1.13 |
| Group SS\_CIS\_TC | 0.66 | 0.21 | 3.13 | 0 | 0.25 | 1.07 |
| Relevance | 0.14 | 0.03 | 4.57 | 0 | 0.08 | 0.2 |
| Self-efficacy | -0.03 | 0.02 | -2.1 | 0.04 | -0.06 | 0 |
| Understanding | -0.06 | 0.03 | -1.82 | 0.07 | -0.13 | 0 |

#### Advanced questions

Out of seven advanced questions, participants answered 1.31 ± 0.98 questions correctly, on average (Table 52).

Table : Summary statistics for advanced questions asked at Stage 3

|  | Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. | SD |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SS | 0 | 0 | 1 | 1.17 | 2 | 4 | 1 |
| SS\_CIS | 0 | 1 | 1 | 1.43 | 2 | 4 | 0.99 |
| SS\_CIS\_TC | 0 | 1 | 1 | 1.31 | 2 | 3 | 0.94 |
| All | 0 | 1 | 1 | 1.31 | 2 | 4 | 0.98 |

Table 53 provides the significant factors from the regression model for the average number of advanced questions (7) correctly answered at Stage 3 (Table 54). For the advanced questions, there was no difference between the three knowledge groups.

Table : Significant factors from the regression model for advanced questions asked at Stage 3

| Factors | Estimate | Std. Error | t value | Pr(>|t|) | 2.50% | 97.50% |
| --- | --- | --- | --- | --- | --- | --- |
| Education Trade/technical/vocational Training | -0.49 | 0.14 | -3.58 | 0 | -0.75 | -0.22 |
| (Intercept) | 1.14 | 0.22 | 5.24 | 0 | 0.71 | 1.57 |

On average, respondents answered 1.14 questions correctly out of 7 (Table 53: 95 per cent CI = [0.71, 1.57], p < 0.01). Out of the factors that were controlled for, only those whose highest education level was trade, technical, or vocational showed a significant difference in number of correctly answered questions. The model suggests that consumers whose highest education level is trade, technical, or vocational would answer 1.14 fewer advanced questions correctly (Table 53: 95 per cent CI = [-0.75, -0.22], p < 0.01).

Table : Regression model for advanced questions

| Factors | Estimate | Std. Error | t value | Pr(>|t|) | 2.50% | 97.50% |
| --- | --- | --- | --- | --- | --- | --- |
| (Intercept) | 1.14 | 0.22 | 5.24 | 0 | 0.71 | 1.57 |
| Doctorate degree/PhD | 0.21 | 0.44 | 0.48 | 0.63 | -0.66 | 1.08 |
| High school graduate | -0.28 | 0.16 | -1.76 | 0.08 | -0.6 | 0.03 |
| Master's degree | -0.24 | 0.23 | -1.04 | 0.3 | -0.69 | 0.21 |
| Professional degree | -0.58 | 0.38 | -1.54 | 0.12 | -1.33 | 0.16 |
| Some high school | -0.16 | 0.18 | -0.85 | 0.4 | -0.52 | 0.21 |
| Trade/technical/vocational training | -0.49 | 0.14 | -3.58 | 0 | -0.75 | -0.22 |
| University diploma | -0.39 | 0.21 | -1.88 | 0.06 | -0.8 | 0.02 |
| Relevance | 0.04 | 0.02 | 2.17 | 0.03 | 0 | 0.07 |

# Questionnaire

All questions for the questionnaire were taken from validated scales.

## Stage One

### General Self-Efficacy (Schwarzer and Jerusalem, 1995)

(1 = Strongly Disagree – 5 = Strongly Agree)

1. I can always manage to solve difficult problems if I try hard enough
2. If someone opposes me, I can find the means and ways to get what I want
3. It is easy for me to stick to my aims and accomplish my goals
4. I am confident that I could deal efficiently with unexpected events
5. Thanks to my resourcefulness, I know how to handle unforeseen situations
6. I can solve most problems if I invest the necessary effort
7. I can remain calm when facing difficulties because I can rely on my coping abilities
8. When I am confronted with a problem, I can usually find several solutions
9. If I am in trouble, I can usually think of a solution
10. I can usually handle whatever comes my way

### Satisfaction (adapted from Harris and Harrison, 2014)

(1 = Strongly Disagree – 5 = Strongly Agree)

1. I was very satisfied with the information about the agreement
2. The information that I received in the preceding paragraphs was helpful
3. I am happy with the amount of information I have received in relation to the telco agreement
4. The information I received in the preceding paragraphs would be enough information for me to consider agreeing to sign-up for a SIM card

### Believability (adapted from Harris and Harrison, 2014)

(1 = Not at all, 5 = Completely)

1. How close to the reality of a telco agreement is the information that has been provided to you?
2. How authentic is the information provided?
3. How likely is this information to be the kind of information a telecommunications provider would give you if you were considering using their services?

### Relevance (adapted from McQuilken, Robertson, Polonsky and Harrison, 2015)

(1 = Strongly Disagree – 5 = Strongly Agree)

1. The information provided would be relevant in my consideration of the SuperMobile smartphone plan.
2. The information provided would be useful in my consideration of a SuperMobile Smartphone Plan.
3. The amount of information provided would be appropriate in my consideration of an SuperMobile Smartphone Plan.

### Understanding (adapted from McQuilken, Robertson, Polonsky and Harrison, 2015)

(1 = Strongly Disagree – 5 = Strongly Agree)

1. I have understood the information contained in the [insert documentation received]
2. I believe that I could solve basic problems with my phone plan with the information provided.
3. I did not understand the agreement with the telecommunications company
4. The agreement was too complex
5. I was not sure what my rights were under the agreement

### Financial Literacy (OECD measures) - (1 = Strongly Disagree – 5 = Strongly Agree)

1. In general, I feel confident when making day-to-day financial calculations.
2. I would consider myself financially literate.
3. Before I buy something I carefully consider whether I can afford it
4. I tend to live for today and let tomorrow take care of itself
5. I find it more satisfying to spend money than to save it for the long term
6. I pay my bills on time
7. I keep a close personal watch on my financial affairs
8. I set long term financial goals and strive to achieve them
9. Money is there to be spent

### Demographic information

What is your age?

* 18-24 years old
* 25-34 years old
* 35-44 years old
* 45-54 years old
* 55-64 years old
* 65-74 years old
* 75 years or older
* Prefer not to answer

What is the highest degree or level of school you have completed? If currently enrolled, highest degree received.

* No schooling completed
* Some high school
* High school graduate
* Trade/technical/vocational training
* University Diploma
* Bachelor’s degree
* Master’s degree
* Professional degree
* Doctorate degree/PhD
* Prefer not to answer

Are you currently...?

* Full time employed for wages
* Part-time employed for wages
* Self-employed
* Out of work and looking for work
* Out of work but not currently looking for work
* A homemaker
* A full-time carer
* A student
* Retired
* Unable to work
* Prefer not to answer

Please describe your work.

* Employee of a for-profit company or business or of an individual, for wages, salary, or commissions
* Employee of a not-for-profit, tax-exempt, or charitable organization
* Local government employee (city, county, etc.)
* State government employee
* Federal government employee
* Self-employed in own not-incorporated business, professional practice, or farm
* Self-employed in own incorporated business, professional practice, or farm
* Working without pay in family business or farm
* Prefer not to answer

What is your sex?

* Female
* Male
* Prefer not to answer

What is your individual annual income (before tax)?

* Less than $10,000
* $10,000 to $19,999
* $20,000 to $29,999
* $30,000 to $39,999
* $40,000 to $49,999
* $50,000 to $59,999
* $60,000 to $69,999
* $70,000 to $79,999
* $80,000 to $89,999
* $90,000 to $99,999
* $100,000 to $119,999
* $120,000 to $139,999
* $140,000 to $159,999
* $160,000 to $179,999
* $180,000 to $199,999
* $200,000 or more
* Prefer not to answer

In which country were you born?

* Australia
* England
* New Zealand
* Italy
* Vietnam
* India
* China
* Scotland
* Philippines
* Greece
* Germany
* Thailand
* Germany
* USA
* Other – please specify: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Prefer not to answer

What is the main language that you speak at home?

* English
* Other – please specify: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Prefer not to answer

Are you of Aboriginal or Torres Strait Islander Origin

* No
* Yes, Aboriginal
* Yes, Torres Strait Islander
* Prefer not to answer

## Stages Two and Three

In stages Two (24 – 48 hours after Stage One) and Three (14 – 21 after Stage Two) we conducted a knowledge test with questions or problems to solve that could be answered based on the information that the participant would have received. For example, some participants received only the Sales Summary (SS), and therefore, would have only had enough detailed information to answer those questions that rely on information provided in the SS only.

### Sales Summary Only (10 questions):

1. How many calls can you make per month to SUPERMOBILE Mobile and home phones?

* 6000
* $500 worth of calls
* Unlimited (Y)
* 1000

2. How much data per month is included in the agreement?

1.5gb (Y)

1.5mb

500mb

500gb

3. You subscribe to receive a daily horoscope via a premium service. Is this part of your included value?

Yes

No (Y)

4. How much does it cost to get directory assistance?

0.99c

$1.39

$2.00 (Y)

It’s free

5. For how long are you tied to SuperMobile under this agreement?

I can get out at anytime with no penalties (Y)

I can get out at anytime with a small charge

I have to wait six months

I have to wait twelve months

6. Are calls to 1800 numbers (e.g., 1800 CENTRELINK) included in the plan?

Yes (Y)

No

7. How much does it cost for you to send a photo via MMS to a friend who uses a different telecommunications provider?

$1.00

50c (Y)

25.3c

$1.50 + 40c Flagfall

8. Are calls to 1300 numbers included in the plan?

Yes

No (Y)

9. Does the plan include a new phone with SuperMobile?

Yes

No (Y)

10. Is 1.5GB more data than 1.5MB?

Yes (Y)

No

11. Is this a pre-paid or post-paid service?

Pre-paid

Post-paid

Both

Neither

### Sales Summary and CIS (7 questions):

1. How much would a two minute call to a 1300 cost you on this plan?

$1.02

$1.53

$2.04

$2.44 (Y)

$1.93

2. How much would be deducted from your included value for a one minute, 48 second call to a mobile or landline?

$0

$1.89

$2.38 (Y)

$1.98

$1.49

3. You have received four voicemail messages, how much will be deducted from your included value to retrieve all of the messages in the one call to your message inbox?

99c

$1.39

$4.36 (Y)

$3.96

4. After three days of being with SuperMobile, you realise that the plan does not suit your needs. You decide to cancel the service. What is the total amount you will pay for your three days with SuperMobile?

$3

$30

$50

$70 (Y)

5. How much will it cost you to make a one minute video call to an Australian number on your plan?

$1.40 (Y)

$1.00

$1.50

0.99c

6. If you don’t understand something in your agreement, where would you turn to for clarification

* Telecommunications Industry Ombudsman (TIO)
* Call SuperMobile
* Search the SuperMobile website
* A friend/family member
* A legal centre
* Whirpool

7. What does “Plan Inclusion” mean?

That any of my activity covered by “plan inclusion” is deducted from the $30 I pay each month

That any of my activity covered by “plan inclusion”” is deducted from my $500 included value (Y)

That any of my activity covered by the “plan inclusion” is unlimited

That any of my activity covered by the “plan inclusion” is in addition to the $30 I pay each month

8. Yesterday you received a text message to tell you that you have used 85 per cent of your data for the month. Today you received another text to say that you have used 103 per cent of your data. Why?

There was a delay between my usage and the alert

Some of my apps have been using data in the background

I used 280mb since yesterday

(ALL ANSWERS IN THIS QUESTION COULD BE CORRECT, THIS IS TO TEST WHAT PEOPLE UNDERSTAND ABOUT ALERTS)

### All Three Documents (6 questions):

1. You have been told that that your data has now reached 85 per cent which means that you have (DROP DOWN BOX: 0.15, 0.23 (Y), 0.5, 1.0) GB left until the end of the month.

2. For the past two days, you have been streaming your favourite TV program on your phone on your half hour commute to and from work. About how much data do you think you will have used?

* 0.5gb
* 1.5gb
* 2.0gb
* 3.5gb (Y)

(Taken from <http://www.vodafone.com.au/personal/mobile-internet/data-guide> )

3. Your provider has told you that you have reached your data limit for the month, with three days to go before it renews. How much will you be charged in addition to your $30 plan if you use on average 120mb per day until the end of the month.

* $10.00
* $12.00
* $36.00 (Y)
* $40.00

4. You send, on average, 20 SMS text messages per day. When will you reach your included free SMS limit?

* I won’t
* At around six months
* At around 10 months (Y)
* At around 12 months

5. This month you sent 2000 text messages, the previous you sent 4000 text messages, and the month before you sent 500. How much will you be deducted from your included value for SMS messages in this month’s bill?

* Nothing. I get 6000 free texts per month
* $1,644.50
* $126.50 (Y)
* Nothing. I have unlimited SMS.

6. You have exceeded your data limit for this month, and the excess data charges come to $30. How much money will be deducted from your direct debit this month to cover this excess?

$10 (Y)

$20

$30

Nothing

6. How much will it cost you to port your number from SuperMobile to Telstra?

* Nothing, it’s free
* Just an administration fee
* $30
* It depends on my new provider

You have lost your job, and realise that you won’t be able to pay your bill by the due date. What could you do to solve your difficulty?

(Open-ended response)

## Information provided to participants

### Sales Summary (SS)

Imagine that you have spent some time searching for an appropriate plan for your smartphone. The salesperson has listened to your needs, and has recommended the following:

“The plan that I recommend for you is the $30 SIM only plan with SuperMobile.

This means that all you need to do is bring your own phone to the plan, and you have no lock-in contract to tie you to SuperMobile. You just pay for the plan month-to-month.

The great thing about this plan is that there are no exit fees and you can change plans or leave SuperMobile at any time with no added fees.

As part of the plan, each month you will pay $30 to receive 1.5 GB of data and $500 worth of calls and texts. The first 6000 texts are free, and after that you pay 25.3c for each text which is deducted from your $500 included value. MMS texts are 50c.

Also deducted from your $500 included value are calls to mobile phone and landlines. Calls to landlines and mobile phones are 99c per minute plus a 40c flagfall. 13/1300, 1800 numbers and premium SMS services are not included in the plan and are charged at a separate rate to calls to mobile phones and landlines. Calls to directory assistance are charged at a $2.00 flat rate.

If you exceed the 1.5GB of data usage, you’ll be charged 10c per MB and you’ll receive a text message alert when you have reached 50%, 85% and 100% of the 1.5 GB limit. These texts may be delayed by up to 48 hours.”

### Critical Information Summary (CIS)

(Starts next page)

Information about the Service

Critical Information Summary

*SuperMobile* T3G Plan - Large

***SuperMobile***

Service Description

The Service is a prepaid SIM Only mobile service with an automatic prepayment top-up when the payment falls to a trigger point. The service includes the following monthly Included Value for use within Australia:

* $500 Included Value for Calls & MMS to Standard Australian Numbers, Calls & Text (SMS and MMS) to International Numbers (Landlines & Mobiles)
* 6000 Included SMS to Standard Australian Numbers
* Unlimited Calls to SUPERMOBILE Mobile & SUPERMOBILE Home Phone
* 1.5GB Included Data

Minimum Term

SUPERMOBILE Mobile Services are supplied on a rolling month-to-month basis. Customers are permitted to terminate the acquisition of the Service at any time.

Call Rates

| Usage Types in Australia | Rate | Plan Inclusion |
| --- | --- | --- |
| Calls to SUPERMOBILE Mobile and Home Phones | Unlimited | ✓ |
| Calls to Standard Australian Numbers | 99¢ + 40¢ flagfall | ✓ |
| Diversions within Australia | 99¢ per minute | ✓ |
| International Calls (Mobiles and Landlines) | See website for rates | ✓ |
| Video Calls to Australian Numbers | $1 per minute + 40¢ flagfall | ✓ |
| Video Calls to International Numbers | $1.50 per minute + 40¢ flagfall | ✕ |
| SMS to Australian Numbers | First 6000 SMS included, 25.3¢ per message thereafter | ✓ |
| SMS to International Numbers | 50¢ per message (max 160 characters) | ✓ |
| MMS to Australian Numbers | 50¢ per message | ✓ |
| MMS to International Numbers | 75¢ per message | ✓ |
| Voicemail Deposit | Unlimited | ✓ |
| Voicemail Retrieval | 99¢ per message + 40¢ flagfall | ✓ |
| Excess Data | 10¢ per MB (charged per KB or part therof) | ✕ |
| Calls to SUPERMOBILE Support 13 11 44 | Unlimited | ✓ |
| 13/1300 Numbers | $1.02 per minute + 40¢ flagfall | x |
| 1800 Numbers | $1.24 per minute + 40¢ flagfall | ✓ |
| 1900 Numbers | Surcharge of 44¢ per minute and rate of holder of number | ✕ |
| Directory Assistance 1223 | $2 per call | ✕ |
| Premium SMS | Variable, dependent on holder number | ✕ |

Excluded Value

SUPERMOBILE Plans exclude Calls and SMS to 19 numbers, Premium SMS, Third Party Content, Video Calls to International Numbers, International Roaming, Diversion to International numbers, Directory Assistance, Calls thru to connect services (e.g. 124YES) and other Enhance Services

Bundling Arrangements & Mandatory Goods

* Supply of the Service does not require Bundling
* It is not a requirement of SUPERMOBILE Mobile Services that customers acquire handsets or other equipment from SUPERMOBILE

Critical Information Summary

*SuperMobile* T3G Plan - Large

***SuperMobile***

Information about the Pricing

| Plan | T3G Plan - Large |
| --- | --- |
| Monthly | $30 |
| Included Value | $500 |
| Included Data | 1.5GB |
| Upfront Fees | Once off SIM $20  Mobile Prepayment Outside Included Value $20 |
| Minimum Monthly Charge – 1st Month | $70 |
| Early Termination Charge | N/A |
| Cost of a 2 Min Standard National Call | $2.38 (incl. 40¢ flagfall) |
| Number of Standard National Calls you could make from your Included Value if you restricted your use solely to Standard national mobile Calls each of 2 minutes in duration | 210 Calls |
| Cost of a Standard National SMS (up to 160 characters) | First 6000 SMS included, 25.3¢ per message there after |
| Cost of 1MB Excess Data | 10¢ |

Other Information

Usage Information

You can monitor you USTEL Mobile Usage by logging into Your Account online at www.SuperMobile.com.au/account.

International Roaming

While roaming, calls, SMS, MMS and data are charged at higher rates than they are used in Australia.

Charges for using International Roaming are not part of your plan’s Monthly Included Value. We highly recommend you disable Mobile Date (GPRS) before going overseas to ensure that you doo not incur unexpected and high data usage fees whilst roaming.

Please be aware there is often a lag of up to 21 days before the roaming usage is shown in “Your Account” due to the delay in receiving your roaming usage records from overseas network carriers.

Customer Support

**Customer Service**

Email: mobile.customer.service@SuperMobile.com.au

Phone: 13 14 23 (option 3, and then option 2)

**Technical Support**

Email: mobile.helpdesk@tpg.com.au

Phone: 13 14 23 (option 2, and then option 3)

Complaints Handling

If you have a dispute with SUPERMOBILE and wish to make a complaint, please contact Customer Relations, a specialist complaint resolutions team, by:

Email: customer\_relations@SuperMobile.com.au

Further Options

If you are not satisfied with our handling of your complaint and you have escalated this within SUPERMOBILE, you may seek complaint mediation or further assistance from the Telecommunications Industry Ombudsman (telephone 1800 062 058).

This is a summary only – the full terms and conditions for this service are available at www.SuperMobile.com.au/terms\_conditions

### Terms and Conditions (T&Cs)

**SuperMobile Standard Terms & Conditions**

These Standard Terms and Conditions apply to services supplied to consumers by Super Mobile Telecommunication Company (SuperMobile) Pty Ltd.

**1. The Agreement**

* 1.1. An agreement is formed when you apply to acquire a service from us and we accept your application. The application may be made over the phone, or by completing an online ordering process or a physical order form. You warrant that you are over 18 years of age and legally entitled to enter into the agreement.
* 1.2. The agreement will be made up of:
  + (a) Your application;
  + (b) The service description;
  + (c) The plan brochure or other document provided to you relating to the service during the application process; and
  + (d) These Standard Terms and Conditions.
* 1.3. If there is inconsistency between any part of the agreement, the inconsistency will be resolved according to the following order of priority:
  + (a) The plan brochure;
  + (b) The service description;
  + (c) these Standard Terms and Conditions; and then
  + (d) your application.

**2. Period of the Agreement**

* 2.1. The agreement commences when your application is accepted by us.
* 2.2. For contracts other than fixed period contracts, the agreement will continue until it is terminated by either party on 30 days notice or otherwise in accordance with the agreement.
* 2.3. For fixed period contracts, the agreement will continue:
  + (a) for the minimum contract period referred to in your application or in the service description or plan brochure; or
  + (b) until it is terminated in accordance with clause 12.
* 2.4. If neither you nor we cancel the agreement at the end of the fixed period contract, we will continue to supply the service to you on a month-to-month basis.
* 2.5. If we will not continue to provide the service to you at the end of the fixed-period contract or if we wish to change the terms of the agreement, including charges, we will inform you of this at least 30 days before the end of the fixed period contract.

**3. Changes to the Agreement**

* 3.1. We may change the agreement in the following circumstances:
  + (a) Where you agree to the change;
  + (b) Where the change will not adversely affect you and, before the changes take effect, we have given you notice of the change;
  + (c) Where the change is in relation to charges for making international telephone calls or roaming and, before the changes take effect, we have given you notice of the change;
  + (d) Where the change is to introduce or vary a fee or charge to pass on a tax or levy imposed by law and, before the changes take effect, we have given you notice of the change;
  + (e) Where the change is to introduce or to vary a charge associated with a content or premium service where we rely on a third party for the service and the third party increases its price to us and, before the changes take effect, we have given you reasonable notice of the change;
  + (f) If the agreement is a fixed period contract and the change is adverse to you, and we provide to you not less than 21 days notice of the change.
* 3.2. We may withdraw any plans/packages at any time by giving you notice but such withdrawals will only take effect from the end of your then current fixed-period contract.
* 3.3. Notice of a change to the agreement may be given by us:
  + (a) by email to your nominated account email address,
  + (b) with or as part of a bill, or
  + (c) otherwise in writing, including by fax or mail.
* 3.4. Changes to these standard terms or a service description will be made available online and you are encouraged to check our website regularly.
* 3.5. If we change the agreement under clause 3.1(f), you may cancel the agreement within 42 days of the date of the notice without incurring charges, other than usage or network access charges to the date the agreement ends and outstanding amounts for installation or for equipment with other suppliers' services.
* 3.6. Your ongoing use of the service after the date of a variation, alteration, replacement or revocation or on the expiry of the 42 day period, is deemed acceptance of the variation, alteration, replacement or revocation.

**4. Applications**

* 4.1. You warrant that information provided to us in the application is true and correct in all material respects and you acknowledge that we will rely on it. You agree that, if you give us incorrect information during an application which is then relied upon and used by a third party carrier for the provision or attempted provision of a service, you will be liable for a resubmission payment to us.
* 4.2. An application for Service may be refused by us in the following circumstances:
  + (a) Where there is a technical limitation to our ability to provide you the service, including where there are network capacity constraints;
  + (b) Where you have not completed an application process correctly or have been unwilling to provide us with a document or information we require;
  + (c) Where you do not meet our credit assessment criteria.
* 4.3. By applying for a service, you authorise to communicate with credit referencing bodies/associations about your credit history and in so doing to provide them with the details that you have provided to us. We may do this from time to time during the term of the agreement
* 4.4. We may apply restrictions to a service where you have not met our credit assessment criteria. We will advise you of the general nature of the reasons for these restrictions and, if applicable, how you may access services which have been restricted.
* 4.5. We may pay commission to a dealer or agent acting on our behalf who is involved in your application process.

**5. Your Private Information**

* 5.1. As part of your application and in connection with the provision of service to you, we may obtain from you private information about you.
* is required by law to collect certain Personal Information about you, including your name, address and telephone service number to provide it to the operator of the Independent Public Numbering Database (IPND). Information in the IPND is used to develop directories and to assist emergency service organisations.
* 5.2. We use our best endeavours to comply with a privacy policy which is available on our website or by contacting us. This policy governs the information we collect on you, how we use it and your rights to access it. You consent to us to collect and disclose your personal information including any unlisted telephone number and address from or to:
  + (a) any credit providers or credit reporting agencies to use the information for all purposes permitted by the Privacy Act (1988) including to obtain a credit report about you or your registered business, maintaining a credit information file about you, or notifying a default by you;
  + (b) any law enforcement agencies to use the information to assist them in the prevention or prosecution of criminal activities;
  + (c) to conduct ongoing credit management of your account;
  + (d) any of our shareholders, related entities, suppliers, agents or professional advisers for reporting, accounting, product supply and service, marketing and audit purposes;
  + (e) any upstream supplier to us to use the information for any purposes connected with the service or your use of the service; and
  + (f) any person who provides us with your username(s) or password(s).
* 5.3. From time to time we will update you on our services, news, promotions and offers including those from related or affiliated organisations. You consent to us contacting you at any time (including after you have terminated the agreement), for this purpose through any available contact methods. You can withdraw your consent at any time by contacting us.

**6. Minimum Contract Period**

* 6.1. The minimum contract period is the minimum fixed period during which you must acquire the service. The minimum contract period may be specified in your application or in the plan. The minimum contract period commences when the service is activated.
* 6.2. If, during the minimum contract period, you cancel the service or we cancel the service because of your default, you may be liable to pay an early termination charge which is either set out in the plan brochure or in the service description.
* 6.3. Once the Minimum Contract Period is over, your service will continue to renew automatically, and you will continue to be charged for the service, until such time as you or we cancel the service by giving 30 days notice.

**7. Usage**

* 7.1. You acknowledge that charges will be incurred when the service is used. It is therefore important that you take steps to ensure that such usage does not occur without your authorisation. You should ensure that you are in control of devices that might make use of your services, such as computers, handsets, mobile phones, and wireless devices connected to your service and that third parties cannot access or use such equipment without your authority. You acknowledge that usage of some services can occur because of an infection of your computer with a virus or due to other unauthorised third party intrusions. You should ensure that you have appropriate protection systems operating on your equipment to restrict or limit the possibility of unauthorised usage.
* 7.2. As we are not able to control access or usage of your handsets and other equipment, you are responsible for all usage charges in respect of the use of the service, whether or not such usage was authorised by you, unless the usage was caused by a mistake by us.
* 7.3. You are not permitted to authorise a third party to use your service without direct supervision and/or written authorisation by us.
* 7.4. You acknowledge that we cannot be held responsible for any loss incurred by you because of faults and/or failures within a third party carrier's network infrastructure.
* 7.5. While we will use our best endeavours in providing the service, you use it at your own risk. Even if you lose some equipment or permit another person to use your service, you are solely responsible for its use including:
  + (a) the calls made and messages sent;
  + (b) the sites and content accessed;
  + (c) the content or software downloaded and the effect it may have on your equipment or service;
  + (d) the products and services purchased;
  + (e) the information provided to others;
  + (f) the installation or use of any equipment or software whether provided by us or not;
  + (g) the modification of any settings or data on your service or related services or equipment whether instructed by us or not;
  + (h) the personal supervision of any users under the age of 18 who use the service; and
  + (i) the lawfulness of your activities when using the service and accessing any sites and third party content.
* 7.6. The service is provided to you on the basis that it is used only for approved purposes. In particular you must:
  + (a) not use the service in any manner involving illegal, malicious, deceptive or misleading activity;
  + (b) not breach any standards, content requirements or codes set out by any relevant authority or industry body;
  + (c) not use the service in any way which interferes with the operations of the service network, anyone else's enjoyment of their service or which upsets or offends any person;
  + (d) not use the service for commercial purposes or in any way distribute or resell the service without our written permission;
  + (e) obey all laws, regulations, guidelines and our reasonable instructions concerning your use of the service;
  + (f) give us all information and cooperation that we may need in relation to the service; and
  + (g) advise us of changes in your personal information such as account details, debit or credit card details and expiry dates and billing and service addresses.
* 7.7. You must not use the service in a way which contravenes any fair use policy, acceptable use policy or fair go policy that applies to the service.
* 7.8. We may suspend or terminate, with or without notice, your service if, in SuperMobile's reasonable opinion, the service has been directly or indirectly involved in activities that are detrimental to our internet service or jeopardise the use of our service or its performance for other customers or how the wider community will perceive SuperMobile. Such activities include, but are not limited to:
  + (a) 'Spamming' e-mail or forwarding spammed e-mail to other Internet user's e-mail addresses'
  + (b) being listed or causing the listing of us or our other customers on any real-time blacklist;
  + (c) e-mail bombing and the use of bulk e-mail programs to unsolicited recipients making commercial advertising, informational announcements, charity requests, petitions for signatures, chain letters and political or religious messages;
  + (d) attempting to obtain unauthorised access to other Internet servers and systems; and
  + (e) making misrepresentations or abusive or offensive behaviour in newsgroups and other online facilities.
* In any of the above circumstances, if we elect to proceed without giving notice, we will initially only suspend the service and will provide you notice of the suspension having occurred and the grounds on which the suspension was made. We will reasonably consider any evidence or submissions you may provide to us to demonstrate that the service was not used for the activity. If we are satisfied that the service was not used for the activity, we will reinstate the service as soon as practicable. If we are not so satisfied, we will terminate the service by giving notice.
* 7.9. You must not use the service in a way or post to or transmit to or via the service any material which interferes with other users or defames, harasses, threatens, menaces, offends or restricts any person or which inhibits any other customer from using or enjoying the service. You must not use the service to send unsolicited electronic mail messages to anyone. You must not attempt any of these acts or permit another person to do any of these acts.
* 7.10. We may suspend without notice your account if it has been used in offensive and/or illegal activities under State and/or Commonwealth laws. This includes the dissemination of banned pornographic material and other illegal content. In such cases, the relevant law enforcement agency(ies) will be notified, and offending material(s) may be passed on to them.
* 7.11. If who use a website or web hosting service provided by us for the public dissemination of violent or pornographic material, you must issue appropriate content warnings and provide viewing guidelines on your website, as per the Classification Act. This is especially important with respect to content which is likely to be considered unsuitable for children according to the Classification Guidelines provided in the Act. If it is brought to our attention that these appropriate content warnings and/or viewing guidelines have not been provided, then we reserve the right to suspend or terminate your account and pass this information on to the relevant authorities.
* 7.12. What constitutes inappropriate use will be determined by us, at our sole discretion provided that we act reasonably.
* 7.13. We may monitor the use of your service, however we do not promise to do so. If we identify excessive use or unusual activity we may temporarily restrict or suspend your service. If we do so we will endeavour to contact you via your nominated primary contact details. We may require an advance payment before your service is restored. You should not rely on us to contact you or to suspend your service in the event of excessive or unusual activity.
* 7.14. We may investigate any misuse of the service by you, in conjunction with relevant law enforcement agencies. If your use of the service results in loss to other users or us, you may be liable to pay compensation.

**8. Phone Numbers**

* This section applies if you acquire a telephone or other service number.
* 8.1. If you do not already have a phone number for your phone for use with the service, we will issue you a phone number.
* 8.2. All phone numbers are selected, issued and used by us in accordance with ACMA's Numbering Plan and Telecommunications Numbering Plan Number Declarations (numbering regulations).
* 8.3. We may be required to recover or recover and replace a phone number we have issued to you in order for us to comply with the numbering regulations.
* 8.4. We will give you as much notice as is reasonably practicable if we have to do this.
* 8.5. You may request a new phone number. If we agree to issue you a new phone number, you may have to pay a charge.
* 8.6. If you need a new phone number because you have received calls of a harassing nature and you reported the matter to the relevant law enforcement agency, we will supply you with a new phone number free of charge on the first two occasions. You will have to pay a charge for any further phone number changes.
* 8.7. You do not own the phone number but your right to use the phone number starts when we issue the phone number to you.
* 8.8. Your right to use the phone number ends if you no longer obtain the service unless you port the phone number.
* 8.9. You may transfer your service number to another carrier or service provider. If you do so you acknowledge and understand that:
  + (a) charges may apply as a consequence of a transfer from us to another carrier or service provider;
  + (b) any outstanding fees and charges which remain are your responsibility;
  + (c) the transfer may result in disconnection of any related services such as Voicemail, paging and data services, silent numbers, priority assistance or other enhanced services;
  + (d) it is your responsibility to ensure that any equipment or software used by you in connection with your service works with your new carrier or service provider; and
  + (e) if after the transfer of your service from us, you continue to use our service (for example through the use of an override code), you agree to pay us for any fees and charges incurred for those services.
* 8.10. In the event that you transfer from us prior to the expiration of the minimum term of your plan you will be liable for any outstanding fees and charges including plan payout and plan cancellation fees.
* 8.11. Where you transfer to us:
  + (a) you authorise us to sign on your behalf and in your name forms of authority to your current supplier to transfer your service number(s) to us and you authorise your current supplier to transfer to us all services relating to the service numbers transferred to us;
  + (b) if your current supplier charges or credits us with any amount concerning services provided before the date of transfer, we will credit or charge that amount to your account accordingly and as soon as practicable; and
  + (c) you indemnify us against any claims made by your current supplier to us in relation to any amounts owing by you to them.
* 8.12. If you stop obtaining the service and do not port the phone number, we may issue the phone number to another customer in accordance with the numbering regulations.
* 8.13. We are not liable to you for any expense or loss incurred by you due to:
  + (a) any recovery or recovery and replacement of the phone number under clause 8.4 above, or
  + (b) you ceasing to have the right to use the phone number under clause 8.9 above.
* 8.14. If your service is disconnected or transferred from us you must pay us all outstanding amounts under the agreement. Once we have received payment, we will refund to you any amount(s), which we may still hold. If we are unable to refund monies owed within 12 months of your disconnection we will retain the funds, which you agree to forfeit to us.

**9. IP Adresses**

* 9.1. You agree that the IP Address(es) issued to you for use in connection with a service are only issued to you for use during the term of your acquisition of the service. On termination of the service, your right to use the IP Address(es) ceases.
* 9.2. We are responsible for all DNS delegation and routing in connection with the service.

**10. Billing and account payment**

* 10.1. The plan brochure or service description may provide that bills will not be issued. If that is so, charges will be incurred notwithstanding that no bill has been issued.
* 10.2. Where we have agreed to issue bills, we will send to you by mail or email notification a tax invoice at the end of billing periods unless the plan brochure stipulates otherwise. You must pay all outstanding amounts by the due date as shown on your tax invoice.
* 10.3. Usage records and download times can vary from time to time. Whilst we aim to do so, we are unable to guarantee that all usage records during a billing period will appear on the corresponding bill. This is particularly so for charges incurred whilst using international roaming but also applies for other types of usage.
* 10.4. Payments may be made to us through our available payment methods. Service fees and charges may apply for some available payment methods. We will apply payments made by you against outstanding tax invoices at our discretion.
* 10.5. If you have chosen to use our direct debit facilities, and we have not received your payment by the due date, unless we agree with you otherwise, we will debit your nominated account on or after the due date. We may continue to do so at any time until all amounts due are paid. We will provide SMS or email notification when debits are made.
* 10.6. Where in our opinion you have a reasonable claim or dispute with an invoice or a debit, we will suspend our collection or recovery processes until a determination on your claim or dispute has been made. We will reimburse any incorrectly debited amount as soon as reasonably practicable.
* 10.7. All administration, registration and set-up fees are non-refundable. You may exchange or receive a refund for equipment which has not been opened or used and has been returned to us within 30 days of purchase.
* 10.8. If you require us to send to you a printed copy of an invoice, this may be subject to an administration fee of $10.00 inc GST will apply per request.
* 10.9. Accepted credit cards: Visa, Mastercard, American Express, Diners Club. Accounts paid with an American Express or Diners Club card will incur a surcharge of 3.2% (incl. GST) of the debited amount when we debit the card.
* 10.10. You are responsible for ensuring there is sufficient funds/credit available in your nominated credit card or direct debit account at any time we debit the account. You must pay dishonor fees and any other charges, expenses or losses resulting from our attempting unsuccessfully to debit the credit card or direct debit account unless the failure was due to a clear error on our part. Dishonored cheques incur a $16.50 inc GST handling charge. Direct Debit rejections incur a $10.00 inc GST charge.
* 10.11. You are required to inform us if your credit card is due to expire at least two weeks prior to the expiry date and are required to provide us with details of a current credit card. You must also advise us if your nominated direct debit account is transferred or closed, or the account details have changed.
* 10.12. Where a customer provides a new credit card number or re-advises a credit card number, SuperMobile will immediately debit the credit card for any outstanding amount owing or an amount of $1 if there is no current amount owing. This debit is to confirm with the Customer's financial institution that the card number and CVC are correct. The CVC is not retained by SuperMobile. The amount received is credited to the customer's account.
* 10.13. SuperMobile will not accept Prepaid Visa/Master credit cards or gift cards.
* 10.14. If you have failed to pay to SuperMobile an amount which is due, we may following appropriate notice to you refer the debt to a third party collections agent for the purpose of collection activity. You must pay all costs, charges and expenses that we may incur in relation to our attempts to recover all debts due by you to us, including accounting, mercantile agents costs and interest.

**11. Bank account direct debit terms**

* 11.1. If you have arranged to pay us by providing a Direct Debit Request ("Your Direct Debt Request"), this clause sets out the terms on which we accept and act to debit amounts from your account under the Direct Debit System.
* 11.2. We agree to be bound by this clause when we receive your Direct Debit Request complete with the particulars we need to draw an amount under it.
* 11.3. We may have requested from you an online or verbal declaration giving us authority to deduct monies from your bank account. By agreeing to this declaration you will be regarded as having 'signed' a Direct Debit Request (DDR) Form. You also agree that we may reproduce this document from our electronic records and that the reproduced document shall, in the absence of error, be an accurate copy of this document signed by you.
* 11.4. If you are not authorised to operate this bank account by yourself then those person(s) whose authority is required must complete and sign a DDR and return it to us.
* 11.5. As recipient of a Direct Debit Facility (DDF) from you, we will:
  + (a) provide you with a statement of the amounts we draw under your Direct Debit Request every month;
  + (b) provide you at least 21 days notice in writing, if we propose to:
    - (i) change our procedures in this agreement;
    - (ii) change the terms of your Direct Debit Request; or
    - (iii) cancel your Direct Debit Request.
  + (c) agree to deal with any dispute raised under your Direct Debit Request as follows: We will investigate the dispute and if it is found that the amount has been debited in error we will refund the disputed amount within 5 business days. Where it is found that the disputed amount has been debited correctly and in accordance to the terms of the Direct Debit Agreement, we will notify you of that outcome in writing within 5 business days; and
  + (d) not disclose any personal information provided to us under the Direct Debit Request, which is not generally available, unless: you dispute any amount we draw under your Direct Debit Request and we need to disclose any information relating to your Direct Debit Request or to any amount we draw under it to the Financial Institution at which your account is held or the Financial Institution which sponsors our use of the Direct Debit System or both of them; you consent to that disclosure; or we are required to disclose that information by law.
* 11.6. As the provider of DDF you:
  + (a) authorise us to draw money from your account in accordance with the terms of your Direct Debit Request and the agreement;
  + (b) acknowledge that if the day on which you are due to make payment to us is not a business day we draw under your Direct Debit Request on the next business day following the normal payment date. You will need to enquire directly with your Financial Institution if you are uncertain when they will process an amount we draw under your Direct Debit Request on a day that is not a business day;
  + (c) may ask us to:
    - (i) alter the terms of your Direct Debit Request;
    - (ii) defer a payment to be made under your Direct Debit Request;
    - (iii) stop a drawing under your Direct Debit Request. In such instances an alternative method of payment must be arranged 3 days prior to the due date and payment received by the due date; or
    - (iv) may cancel all your services including your Direct Debit Request by sending a written request including your customer number and telephone number to us;
  + (d) will advise us of any disputed amount drawn under your Direct Debit Request as soon as practically possible by notifying us of your dispute by letter or fax, (include your customer number and telephone number to us) and provide us with details of the payments in dispute and reasons for the dispute. We will endeavour to resolve any dispute within 21 days. Disputes may also be directed to your own Financial Institution;
  + (e) acknowledge it is your responsibility to ensure there are sufficient clear funds available in your account by the due date, on which we will draw any amount under your Direct Debit Request, to enable us to obtain payment in accordance with your Direct Debit Request;
  + (f) acknowledge that if your Financial Institution rejects any of our attempts to draw an amount in accordance with your Direct Debit Request, we will recharge any dishonour fees charged to us by the Financial Institution, to your account. We will make two attempts to draw outstanding amounts in accordance with your Direct Debit Request. If these fail, we will contact you by telephone or in writing to seek alternative methods of payment for the outstanding balance of your account, and to agree a suitable payment method for future account payments;
  + (g) acknowledge not all accounts held with a Financial Institute are available to be drawn under the Direct Debit System and that prior to providing your account details to us under the Direct Debit Request, have verified those details against a recent statement from your Financial Institution to ensure those details are correct.

**12. Suspension/Disconnection of the service**

* 12.1. If your fixed period contract has expired or you are on a month-to-month contract, you or we may disconnect the service and cancel the agreement at any time by giving 30 days notice.
* 12.2. If you fail to comply with what we consider to be an important term or condition of this agreement or should you fail to comply with a number of less important terms and conditions then we can suspend or disconnect your service or reroute calls from your service. We will generally provide you with notice of your failure and allow you a reasonable time to remedy it. However we may suspend or disconnect your service without notice to you where:
  + (a) you exceed the amount of your air limit or credit limit;
  + (b) there has been, in our opinion, unusual activity on your service such as:
    - (i) usage of the service which is extremely high compared to your usage of the service in prior months and which will result in you incurring high charges; or
    - (ii) activity that is consistent with your service or equipment connected to your service having been infected with a virus or other malicious software; or
    - (iii) other activity that SuperMobile reasonably believes is evident that the service is being used for fraudulent or other illegal purposes;
  + (c) you have not paid charges when due and have not remedied that failure within what we consider to be a reasonable time;
  + (d) you do something which we believe may damage the service network;
  + (e) you are no longer approved by us under our assessment policies or otherwise to receive the service;
  + (f) an authority such as the ACMA or enforcement agency instructs us to do so;
  + (g) we believe that you have used your service to commit unauthorised, criminal or unlawful activity;
  + (h) you vacate the premises in which you are provided the service without notifying us beforehand;
  + (i) there are technical problems with the service network or the service network requires repairs or maintenance;
  + (j) we believe it is necessary to comply with our legal obligations;
  + (k) we are entitled to do so under the specific terms and conditions of your plan or package;
  + (l) you verbally abuse, attempt, threaten or cause harm to any staff, equipment or network infrastructure of ours or any of the service networks.
* 12.3. In the following additional circumstances we may suspend or disconnect your service(s) or reroute calls from your service(s) but we will provide you with reasonable notice prior to doing so:
  + (a) you have a mobile service and you inform us that you have lost your SIM card;
  + (b) you have a mobile service which does not toll in any three month period;
  + (c) you do anything which we believe may damage the service network;
  + (d) you have used the service, in our opinion, other than in accordance with the agreement;
  + (e) you do not comply with the terms set out in a Plan Brochure or a Service Description.
* 12.4. Where one or more services included in a bundled offer(s) are disconnected, entitlement to any discounts under such offers may be forfeited.
* 12.5. While your service is suspended or disconnected we will continue to charge you any applicable fees and charges. We will only do so where the suspension or disconnection is due to your failure to comply with your obligations under this agreement, or is performed at your request.
* 12.6. Where we disconnect your service prior to the expiration of the minimum term of your plan you will be liable for any outstanding fees and charges, including the remaining access fees on your plan plus a plan cancellation fee if applicable. We will only charge a plan cancellation fee in circumstances where you have failed to comply with an important term or condition of our agreement.
* 12.7. We are not liable to you or any person(s) claiming through you for any loss or damage arising from suspension or disconnection of your service in accordance with this clause.

**13. Force Majeure**

* 13.1. We will not be liable for:
  + (a) any delay in installing any service.
  + (b) any delay in correcting any fault in any service.
  + (c) failure or incorrect operation of any service, or
  + (d) any other delay or default in performance under this Agreement
* if it is caused by any event or circumstance reasonably beyond our control, including but not limited to; war, accident, civil commotion, riot, military action, sabotage, act of terrorism, vandalism, embargo, judicial action, labour dispute, an act of a government or a government authority, acts of God, earthquake, fire, flood, plague or other natural calamity, computer viruses, hacker attacks or failure of the internet or delay, or failure or default by any other supplier.

**14. Liability**

* 14.1. You may have certain rights and remedies under:
  + (a) the Competition and Consumer Act 2010 (Cth) and other laws, which may imply certain conditions and warranties into this agreement; and
  + (b) the Customer Service Guarantee issued by the ACMA, which established minimum connection and fault repair times, breach of which entitles you to certain specified amounts of damage.
* 14.2. We do not exclude or restrict or modify those rights, remedies or implied conditions and warranties.
* 14.3. Where we are liable for any loss or damage in connection with or arising from the breach of any term, condition, warranty or remedy implied by the Competition and Consumer Act 2010 (Cth) our liability is limited to resupplying, repairing or replacing the relevant service or equipment where the service or equipment is not of a kind ordinarily required for personal, domestic or household use or consumption and where it is fair and reasonable to do so.
* 14.4. You must let us know as soon as you become aware or believe that you have a claim against us.
* 14.5. We are not liable for any defamatory, offensive or illegal conduct or material found in connection with our services, including such conduct or material transmitted by any means by any other person
* 14.6. You indemnify us from and against all actions, claims, suits, demands, liabilities, losses, costs and expenses arising out of or in any way connected with your use of the service or the equipment in a manner contrary to the terms of this agreement.
* 14.7. Where you are two or more persons your liability will be joint and several.

**15. Assignment**

* 15.1. You may transfer your rights and obligations under this agreement to other person(s) approved by us under our assessment policies.
* 15.2. Where we reasonably consider there will be no detriment to you, we can without your permission and without notice:
  + (a) transfer our rights and obligations under this agreement to our nominee;
  + (b) temporarily or permanently delegate our obligations under this agreement to our nominee; or
  + (c) novate this agreement to our nominee by ending this agreement and entering into a new agreement between you and our nominee, on terms similar to this agreement.
* 15.3. If we do any of the above the transfer or delegation or novation will take effect when the relevant document is signed. You irrevocably appoint us as your attorney to sign any necessary documents to enable the transfer, delegation or novation to take effect.

**16. Governing law**

* 16.1. This agreement is governed by the laws of the state or territory of Australia in which you are normally resident. You and we agree to submit to the jurisdiction of the courts of such state or territory.

**17. Meaning of words**

* 17.1. Terms used within this agreement have the following meaning unless the context suggests otherwise.
  + (a) ACMA means the Australian Communications and Media Authority.
  + (b) agreement means the agreement for the provision of the services between us comprising the items outlined in clause 1.2 of these standard terms.
  + (c) air limit means a usage threshold we may impose on use of your mobile service.
  + (d) available service area means locations in which the service network is capable of providing service. Information on coverage areas is available by contacting us or visiting our website.
  + (e) billing period means the period in which you are billed by us for service. You will have 12 billing periods per year unless we agree otherwise.
  + (f) billing run means the process of producing a bill for you. Each billing run corresponds to a billing period.
  + (g) carrier means a Telecommunications carrier licensed under the Telecommunications Act 1997.
  + (h) contact method means mail, SMS, MMS, email or telephone.
  + (i) credit assessment policies means those rules we use to determine whether we wish to accept or decline to provide or continue to provide you with the service. These policies may change from time to time without notice to you. Under these policies you must: be at least 18 years of age; be capable of entering into a legal contract; be alive; not be insolvent or bankrupt or subject to any proceedings to make you insolvent or bankrupt; where you are in a partnership, the partnership must not have been dissolved; where you are a company neither you nor any of your assets may have been assumed under the terms of a debt security instrument or under court order or otherwise appointed.
  + (j) credit limit means a limit we may place on your use of a service or on amounts you owe us at a point in time.
  + (k) current supplier means a carrier or telecommunications service provider who supplied telecommunications to you at the time of signing the agreement.
  + (l) customer care policies means the policies, procedures, terms and conditions under which we provide services. Our customer care policies are updated from time to time and are available on our website or by contacting us.
  + (m) customer service guarantee means the current minimum performance standard set by the ACMA under sections 115, 117 and 120 of the Telecommunications (Consumer Protection and Service Standards) Act 1999.
  + (n) direct debit date means the date, on or after the due date, on which we will automatically debit your direct debit facility for amounts due.
  + (o) direct debit facility means the debit account or credit/charge account nominated by you for the debiting of your fees and charges.
  + (p) due date means the date the amount shown on your tax invoice is due to be paid to us. The due date is not less than 14 days after the tax invoice date.
  + (q) enhanced services means the services we provide that are designated by us as enhanced services. Our website and plan brochures will detail which services we have designated as enhanced services.
  + (r) equipment means the item(s) required or otherwise used in conjunction with your service such as mobile phones, fixed lines phones, personal computers, software and modems purchased from us or otherwise.
  + (s) factsheets means detailed information made available on our website or otherwise.
  + (t) fees and charges means fees and charges payable by you under your plan and under this agreement including any amounts of applicable GST.
  + (u) fixed line service means the standard telephone service comprising connection to the public switched telephone network plus any other service(s) offered by us including any enhanced services.
  + (v) fixed period contracts are entered into where you commit to a minimum period for which you will acquire the service and may be set out in the plan brochure but do not include month to month contracts.
  + (w) GST means the tax imposed by A New Tax System (Goods and Services Tax Imposition General) Act 1999 and any regulations thereto or such other Act and regulations of equivalent effect.
  + (x) GST Act means A New Tax System (Goods and Service Tax) Act 1999.
  + (y) GST supply means a supply as defined in and which is subject to liability for GST under the GST Act.
  + (z) Hardware means the Call Saver Unit or any equipment that we may provide from time to time.
  + (aa) internet service means connection to the global network of computers known as the internet using software protocols supported by us, plus any other services offered by us including enhanced services.
  + (bb) mobile network means the mobile network over which we supply the service.
  + (cc) mobile service means the connection to the Mobile Network plus any other services offered by us including enhanced services.
  + (dd) package means a grouping of services and plans, which are sold together under specific terms and conditions.
  + (ee) passwords means the personal information or security codes such as your customer service account passcode or website password used by us to confirm that an individual has authority to enquire or transact on your account.
  + (ff) personal information has the same meaning as defined within the Privacy Act 2000.
  + (gg) plan means your plan for each of the service(s), the terms and conditions of which may include a minimum term, monthly fees and call charges as amended from time to time.
  + (hh) plan brochure is any brochure or other document (including a webpage) which sets out the terms and conditions of a plan.
  + (ii) premium services means content or information services, charged at a flat or timed rate, such as picture, ringtone and game downloads, and SMS messages to weather services, as well as psychic, voting and competition lines. Premium Service phone numbers usually begin with 190 or an international prefix, whilst SMS numbers usually begin with 18 or 19.
  + (jj) primary contact means the mobile or fixed line service number, email address or other specific contact designated by you and accepted by us to use as our primary means of contacting you in relation to your account.
  + (kk) priority assistance means services offered to persons who are diagnosed with a life threatening medical condition with a high risk of rapid deterioration to a life threatening situation and where access to a telephone would assist to remedy the life threatening situation.
  + (ll) service means any and all of the digital mobile phone services, fixed line services and internet services that we provide to you including any enhanced services and also includes our customer support services. Information on our services is available on our website.
  + (mm) service network means the carrier of the telecommunications services sold to you by us and includes the mobile network.
  + (nn) SIM card means the subscriber identity module card, which the network owns, but is provided to you to be placed into your mobile phone to enable you to access your mobile service.
  + (oo) tax invoice date means the date you are issued with a tax invoice containing a fee or charge.
  + (pp) third party content means products and information provided by third parties to you, which you can access through your service.
  + (qq) third party content supplier means a party that provides third party content to you through your service.
  + (rr) toll means making a voice call or SMS from your mobile service.
  + (ss) transfer means to port, move or swap your service number from one carrier or service provider to another as defined by the Telecommunications Numbering Plan 1997.
  + (tt) usage record means the record of a call or data transfer provided to us by the service network.
  + (uu) user means someone who uses a service, which may or may not be the account holder.
  + (vv) username means the username created by you when you registered for a particular service.
  + (ww) We, our, us means the member of the SP Telemedia Limited group which enters into the agreement with you.

**Complaint Handling Policy**

SuperMobile aims to provide our Customers with the best possible service. If you haven’t received the service you expected or your would like to make a suggestion we always appreciate your feedback.

Customer Service is your main point of contact within SuperMobile whether you wish to discuss an issue regarding your account or you want information about our services. Our Customer Service staff can be contacted by mailto: [customer\_service@SuperMobile.com.au](mailto:customer_service@SuperMobile.com.au)

You will find the majority of can be handled on the first call. If further investigation is required we will give you a timeframe & keep you posted along the way.

Our Customer Service staff may escalate your case to a Technical Support Officer, our Customer Relations Team or even their Supervisor.

If you are not satisfied with the way in which the Customer Service staff is dealing with your issue, you can request to be escalated to a Supervisor.

Customer Relations can be contacted directly by emailing [customer\_relations@SuperMobile.com.au](mailto:customer_relations@SuperMobile.com.au)

We aim to respond to all written correspondence within one working day. SuperMobile believes that its internal resolution process is the most effective and quickest way to resolve complaints. However If you are not satisfied with our handling of your issue and you have escalated this within SuperMobile, you may seek further assistance from external avenues of recourse in your state or territory.

SuperMobile aims to provide our customers with the best possible service. If you haven't received the service you expected or you would like to make a suggestion we always appreciate your feedback.

Consumers and former customers have the right to make a complaint for escalation within SuperMobile.

A complaint means an expression of dissatisfaction made to us in relation to our products or the complaints handling process itself, where a response or resolution is explicitly or implicitly expected by you. Contacting SuperMobile to request support or to report a service difficulty is not necessarily a complaint.

**Making a Complaint**

If our Customer Service or Technical Support teams have been unable to satisfy your issue, you can request for your call to be considered a complaint.

You may nominate an authorised representative or advocate to liaise with us on your behalf. If you need assistance with understanding this process or lodging a complaint, please let us know. This includes consumers with a disability or those who are suffering hardship or are from a non-English speaking background.

**What We Will Do Next**

We will acknowledge a complaint immediately on the phone or within 2 business days of receiving it and provide you a reference number. Where possible, our level 1 Customer Service and Technical Support teams will resolve your complaint upon first contact. Where they have been unable to do so, our Customer Relations team will take over management of the complaint and resolve your complaint within 15 business days of receiving it, depending on the complexity of your complaint.

We will let you know any reasons for delay and a specific timeframe for resolution. We will keep you updated with the status of your complaint and you may contact us either by phone or by email with your reference number to request a status update. Please note that SuperMobile is unable to implement any resolution until you have accepted it.

**Further options**

You will find the majority of matters can be handled by SuperMobile’s internal processes and we do ask that you first allow us the opportunity to exhaust all avenues in resolving your complaint. However, if you are not satisfied with our handling of your complaint and you have escalated this within SuperMobile, you may seek complaint mediation or further assistance from the Telecommunications Industry Ombudsman (telephone 1800 062 058) or the fair trading department in your state or territory.

**Urgent Complaints**

Please advise us if your complaint is urgent. Complaints will be considered as urgent if:

* You have applied for or have been accepted as being in Financial Hardship under SuperMobile’s Financial Hardship policy
* Disconnection of a service is imminent or has already occurred and where due process has not been followed

Please note SuperMobile does not offer the Priority Assistance scheme.

Urgent complaints will be acknowledged within one business day. We aim to resolve the urgent aspects of such a complaint within 2 business days or let you know of any reasons for delay and a specific timeframe for resolution.

**Summary of Financial Hardship Policy**

Financial Hardship is a term used to describe a situation where a person is unable to meet their financial commitments due to one or more factors contributing to their financial position. Common contributing factors include:

* Loss of employment of you or a family member, including physical incapacity, hospitalization, or mental illness of you or a family member
* A death in the family
* Other factors resulting in an unforeseen change in your capacity to meet their payment obligations, whether through a reduction in income or through an increase in non-discretionary expenditure.

Discussing your concerns gives us the opportunity to help you manage your bills. If you do require time to pay an outstanding amount, agreeing to a payment plan and sticking to it can help prevent disconnection or restriction of your service. Disconnection of your service is used only as a last resort, and we will endeavour to work with you to ensure this does not happen

To assist us in establishing the level of support you require, dependent on your individual circumstance, we may request supporting evidence, including, but not limited to:

* such as a statutory declaration from a person familiar with the customer&rsquo;s circumstances (family doctor, clergy, bank officer, etc);
* evidence of the customer having consulted with, and/or being accompanied by a recognized financial counselor or a booking to see a financial counselor.

There are also a range of other financial support services available such as free financial counseling services offered in each state and territory in Australia. For more information on these &amp; other options available please see the ACMA website: http://www.acma.gov.au/

Financial Hardship is a term used to describe a situation where a person is unable to meet their financial commitments due to one or more factors contributing to their financial position. Common contributing factors include:

* + Loss of employment of you or a family member
  + Illness, including physical incapacity, hospitalisation or mental illness of you or a family member
  + Family breakdown
  + A death in the family
  + Other factors resulting in an unforeseen change in your capacity to meet their payment obligations, whether through a reduction in income or through an increase in non-discretionary expenditure.

If you are having a problem paying your bill, or you wish to discuss options available to you to minimise your bill, call Customer Service today.

The earlier you contact us, the better. Discussing your concerns gives us the opportunity to help you manage your bills.

If you do require time to pay an outstanding amount, agreeing to a payment plan and sticking to it can help prevent disconnection or restriction of your service. Disconnection of your service is used only as a last resort, and we will endeavor to work with you to ensure this does not happen.

To assist us in establishing the level of support you require, dependent on your individual circumstance, we may request supporting evidence, including, but not limited to:

* Documentation such as a statutory declaration from a person familiar with the your circumstances (family doctor, clergy, bank officer, etc);
* Evidence of you having consulted with, and/or being accompanied by a recognised financial counselor or a booking to see a financial counselor.

**Minimising your Debt**

There are options available for minimising your debts and staying connected whilst managing your spending. Examples include:

* Call barring
* Reconnection of a service with restricted access
* Plan change
* Cancel any content subscription or premium services (e.g. ring tones, jokes, pictures, etc)
* You can access the "My Account" system via our website, which offers Account Management across all services such as checking your usage.

**Further Options**

There are also a range of other financial support services available such as free financial counseling services offered in each state and territory in Australia. For more information on these and other options available please see the [ACMA's website](http://www.acma.gov.au/WEB/STANDARD/pc=PC_2939).

# Authors

## Dr Paul Harrison

Dr Paul Harrison is Director of the Centre for Organisational Health and Consumer Wellbeing, a Senior Lecturer in Marketing, and Unit Chair of Consumer Behaviour in the Department of Marketing at the Deakin Business School.

His research is focused on emotional and rational behaviour, and how our biology and the environment interact to influence the way we make decisions. His work has been published in a wide range of international journals and conference proceedings, and has informed policy and business practice in Australia and internationally.

Paul is a director of the Telecommunications Industry Ombudsman (TIO), a former chair of the Asylum Seeker Resource Centre (ASRC), a member of VicHealth's Social Marketing Expert Panel and a member of the Essential Services Commission's Consumer Insights Panel. Paul is a graduate of the Australian Institute of Company Directors.

## Laura Hill

Laura Hill (M.Mktng) draws on her marketing and sociology background to conduct consumer behaviour research for Deakin University. She first studied a Bachelor of Arts as a Participant in the Dean’s Scholars Program at Monash University and obtained Honours in Sociology, specialising in qualitative research. Her thesis, which was awarded First Class Honours, examined attitudes of young people towards relationships. Laura then spent three years undertaking behavioural analysis for the Australian Department of Defence, examining the behaviour of individuals and groups of interest to the Australian Government to inform policy and senior minister decision-making. Laura then obtained a Master of Marketing from Deakin University and was awarded a place on the Dean’s Merit List of postgraduate business students. She also works in the marketing team of a management consulting firm.

## Charles Gray

Charles Gray is a PhD candidate at La Trobe University. She lectures mathematics and statistical modelling. Her current research interests are meta-analysis, data visualisation, and interactive simulations.

1. <http://www.commsalliance.com.au/__data/assets/pdf_file/0007/44539/Customer-Information-Obligations-Framework-Final.pdf> [↑](#footnote-ref-1)
2. http://www.acma.gov.au/Industry/Telco/Reconnecting-the-customer/Public-inquiry/final-report-reconnecting-the-customer-acma [↑](#footnote-ref-2)
3. 76 per cent of consumers fully read a contract upon placing their child or children in a nursery school, indicating the greater consideration consumers place upon a purchase arrangement involving the care of their children. [↑](#footnote-ref-3)
4. All confidence intervals are provided with 95% confidence; i.e., we are 95% confident the true parameter falls between these two values. [↑](#footnote-ref-4)
5. http://www.acma.gov.au/Industry/Telco/Reconnecting-the-customer/Public-inquiry/final-report-reconnecting-the-customer-acma [↑](#footnote-ref-5)
6. https://billmonitor.com/ [↑](#footnote-ref-6)