

# **AUDIOBOOKS SPEAK FOR THEMSELVES**

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**A QUANTITATIVE STUDY OF CONSUMER BEHAVIOUR  
RELATED TO AUDIOBOOKS IN SWEDEN**

**HEDDA HANNER**

**ALICE O'CONNOR**

Bachelor Thesis

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## **Audiobooks Speak for Themselves: A Quantitative Study of Consumer Behaviour Related to Audiobooks in Sweden**

### **Abstract:**

This thesis investigates Swedish book readers and factors that correlate with their attitudes towards and intentions to use audiobooks and digital subscription services for audiobooks. Digital subscription services for audiobooks have quickly become an important sales channel in the Swedish book industry, and there is limited previous research on the subject. The authors aim to help fill this research gap by performing an empirical, quantitative questionnaire study targeting Swedish book readers, and audiobook listeners specifically, centred on socio-demographic information, as well as factors expected to correlate with attitude and behavioural intention.

The results show socio-demographic factors supporting and contradicting past research. It shows empirical support for need for companionship being a significant positive contributor to attitude towards audiobooks, and perceived usefulness and preference for trialability to be strongly correlated with attitude towards digital subscription services for audiobooks. Moreover, attitude has empirical support for being more significantly positively correlated with behavioural intention than subjective norms for both audiobooks and digital subscription services for audiobooks. Finally, some similarities and differences are found between respondent groups segmented based on usage, gender, and age.

### **Keywords:**

Audiobooks, Digital subscription services, Consumer behaviour, Attitude, Behavioural intention

### **Authors:**

Hedda Hanner (23600)  
Alice O'Connor (23671)

### **Tutors:**

Patric Andersson, Associate Professor, Department of Marketing and Strategy

### **Examiner:**

Hanna Berg, Research Fellow, Department of Marketing and Strategy

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## **Glossary and definitions**

**Audiobook:** a spoken word recording of a book or other printed material (Have & Stougaard Pedersen, 2016; Rubery, 2011)

**Printed book:** pieces of paper fastened together, containing information, stories or other printed text (Rao, 2003 referred to in Bergström et al. 2017; Rubery, 2011)

**E-book:** an electronic version of a printed book which can be read on a computer or a specifically designed handheld device (E-book, n.d.)

**Digital subscription service:** a business model in which users are charged a periodic daily, monthly, or annual fee to subscribe to a digital service (adapted from Rappa, 2004)

**Attitude:** “a person’s general feeling of favourableness or unfavourableness toward some stimulus object” (Fishbein & Ajzen, 1975, p. 216)

**Behavioural intention:** “a person’s intentions to perform various behaviours” (Fishbein & Ajzen, 1975, p. 12)

**Subjective norms:** “a person’s perception that most people who are important to [them] think [they] should or should not perform the behaviour in question” (Fishbein & Ajzen, 1975, p. 302)

**APA:** Audio Publishers Association

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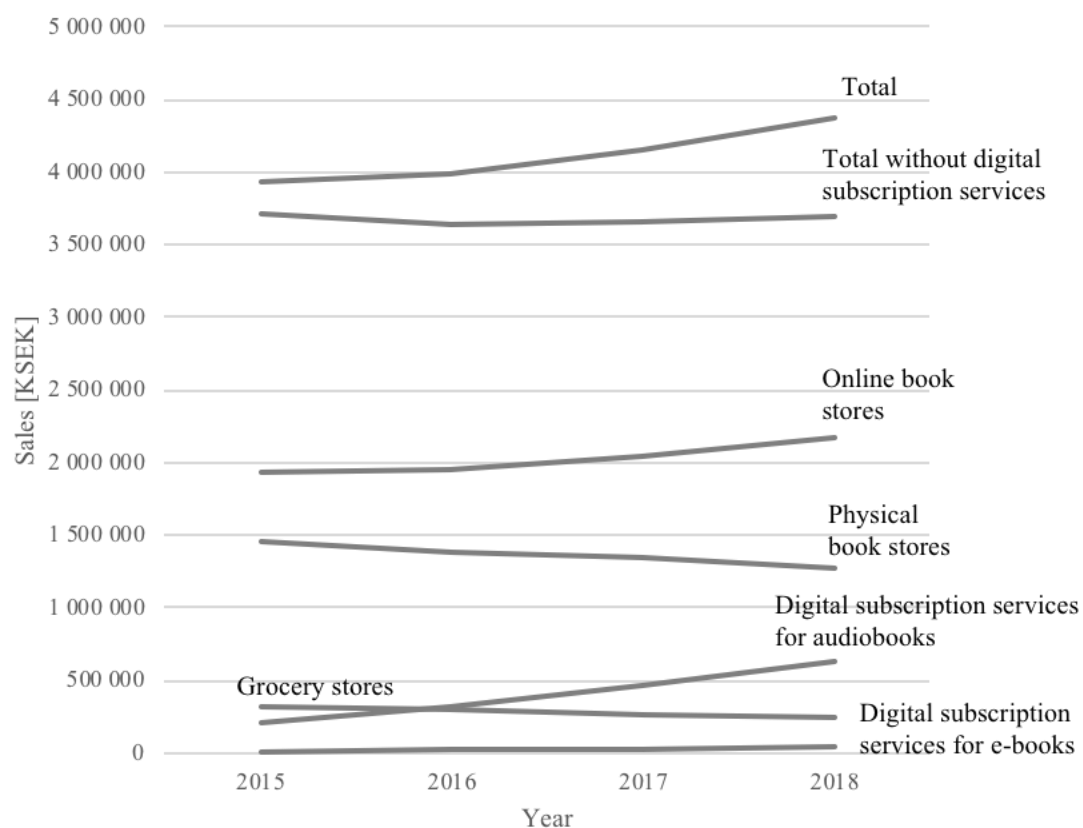
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# 1. Introduction

## 1.1. Opening

Like many industries globally, the Swedish book industry is developing extensively due to digitalisation. Digital subscription services for audiobooks are becoming an increasingly important channel on the Swedish market. Wikberg (2019) presents the following statistics. Between 2017 and 2018, sales via digital subscription services for audiobooks increased by 33.6%. Meanwhile, online sales increased, but much less so, and sales via physical book stores and grocery stores decreased. When excluding digital subscription services for audiobooks from total sales, the Swedish book industry grew by 0.9% between 2017 and 2018; when including them, as well as digital subscription services for e-books, the growth totalled 4.9% instead.

The growth of digital sales channels and decline of physical ones is a multi-year trend within the Swedish book industry (Figure 1). With these statistics in mind, one may ask: Why do people enjoy listening to audiobooks, and specifically using digital subscription services for audiobooks?



**Figure 1:** Run chart of sales numbers for different book channels in Sweden between 2015-2018 (Wikberg, 2019)

In marketing, there is much more to be studied regarding audiobooks and digital subscription services, particularly the intersection of the two. This thesis aims to investigate this intersection further.

## 1.2. Defining the audiobook

An audiobook can be defined as a spoken word recording of a book or other printed material (Have & Stougaard Pedersen, 2016; Rubery, 2011). In Sweden, there is also a judicial definition separating audiobooks from speech books. Speech books are for people with reading impairments, following special regulations and sponsored by the government, whereas audiobooks are commercial products with regular copyright rules accessible to anyone (Swedish Agency for Accessible Media, n.d.). Digital audiobooks refer to downloadable or streamable formats, whereas physical audiobooks refer to tangible formats, like CDs and cassette tapes.

There is an ongoing debate on the exact definition of audiobooks in relation to other book mediums. If one defines a book as pieces of paper fastened together, containing information, stories or other printed text, an audiobook is not a book (Rao, 2003 referred to in Bergström et al. 2017; Rubery, 2011). Others suggest that audiobooks are an example of remediation, which is the representation of one medium in another (Have & Stougaard Pedersen, 2016). From this perspective, audiobooks are simply another medium for consuming books rather than not books at all, but with different implications for sensorial experiences, interpretation, et cetera (Have & Stougaard Pedersen, 2016; Itzkovich, 2012). The latter perspective is used in this thesis, defining printed books, audiobooks, and e-books as different book mediums.

The subscription model is a business model in which “users are charged a periodic daily, monthly, or annual fee to subscribe to a service” (Rappa, 2004, p. 37). Digital subscription services are growing in popularity across multiple industries and countries. Deloitte (2017) predicts that 50% of adults in developed countries will have at least four online-only media subscriptions by the end of 2020. Common among digital subscription services for audiobooks is on-demand streaming, meaning that subscribers can access an extensive library, rather than purchasing individual books (Wlömert & Papies, 2016). As the norm on the Swedish market for audiobooks, digital subscription services will in this thesis refer to those with unlimited listening, unless otherwise specified.

## 1.3. Historical background

Colbjørnsen (2016, referred to in Imberg & Petersson, 2016) determines three aspects that have shaped the audiobook historically; technology, disability, and mobility. First, technology relates to general technological developments, such as recording and audio



devices. It was indeed the growth of audio cassettes in the 1970s that popularised the term “audiobook” (Rubery, 2011), and the term was established as standard for consistency by the Audio Publishers Association [APA] in 1994 (Whitten, 2002). The audio cassette was soon replaced by the CD in the 1980s, and the downloadable MP3 format in 2002 (Rubery, 2011). In Sweden, digital subscription services have become the leading channel for audiobooks (Wikberg, 2019).

Second, disability, in the form of reading inabilities, has created demand for audiobooks. The phonographic books in the late 1800s were for example mainly recorded for the visually impaired (Rubery, 2011). The disability aspect has contributed to audiobooks long having been regarded as a way of overcoming reading difficulties (Have & Stougaard Pedersen, 2012). Third, mobility represents technology that has enabled audiobook consumption on-the-go, for example MP3 players and mobile phones.

## 1.4. Industry analysis

Porter’s (1979) five forces are applied to present the authors’ evaluation of the Swedish book market. This framework provides insight into the competitive environment of the industry by analysing potential substitutes, industry rivalry, barriers to entry, buyer power, and supplier power.

### 1.4.1. Substitutes

Audiobook substitutes can primarily be determined from two perspectives (Have & Stougaard Pedersen, 2016). First, the action of reading implies other book mediums as substitutes, like printed books and e-books. Conversely, audiobooks can other times be viewed as complements to visual reading mediums (Have & Stougaard Pedersen, 2016). In 2017, 32% of Swedes reported using a combination of printed books, audiobooks and e-books (Höglund & Wahlström, 2018). Second, considering audiobooks as a medium for oral storytelling, substitutes include other oral media, like podcasts and music. Bergström et al. (2017) propose that book companies are no longer competing against each other, but rather compete as substitutes for other digital media entertainment. This is particularly relevant when discussing digital subscription services for audiobooks, which are similar to digital subscription services for other types of entertainment like Spotify or Netflix. In 2018, these were used by 69% and 54% of Swedes respectively (Davidsson, Palm & Melin Mandre, 2018). Overall, the number and strength of substitutes are determined as high.

### 1.4.2. Industry rivalry

In Sweden, the market for digital subscription services for audiobooks is dominated by three large commercial actors, which were the only domestic ones until 2018: Storytel,

BookBeat and Nextory (Wikberg, 2019). They have highly generic offerings, leading to differentiation difficulties, other than minor price-setting differences and small features (Allaljudbocker.se, n.d.). Each service is accessed via mobile applications. All offer subscriptions for unlimited listening for a monthly fee between 149-169 SEK, with many of the same book titles. The services differ primarily in aesthetic design and, to some extent, branding.

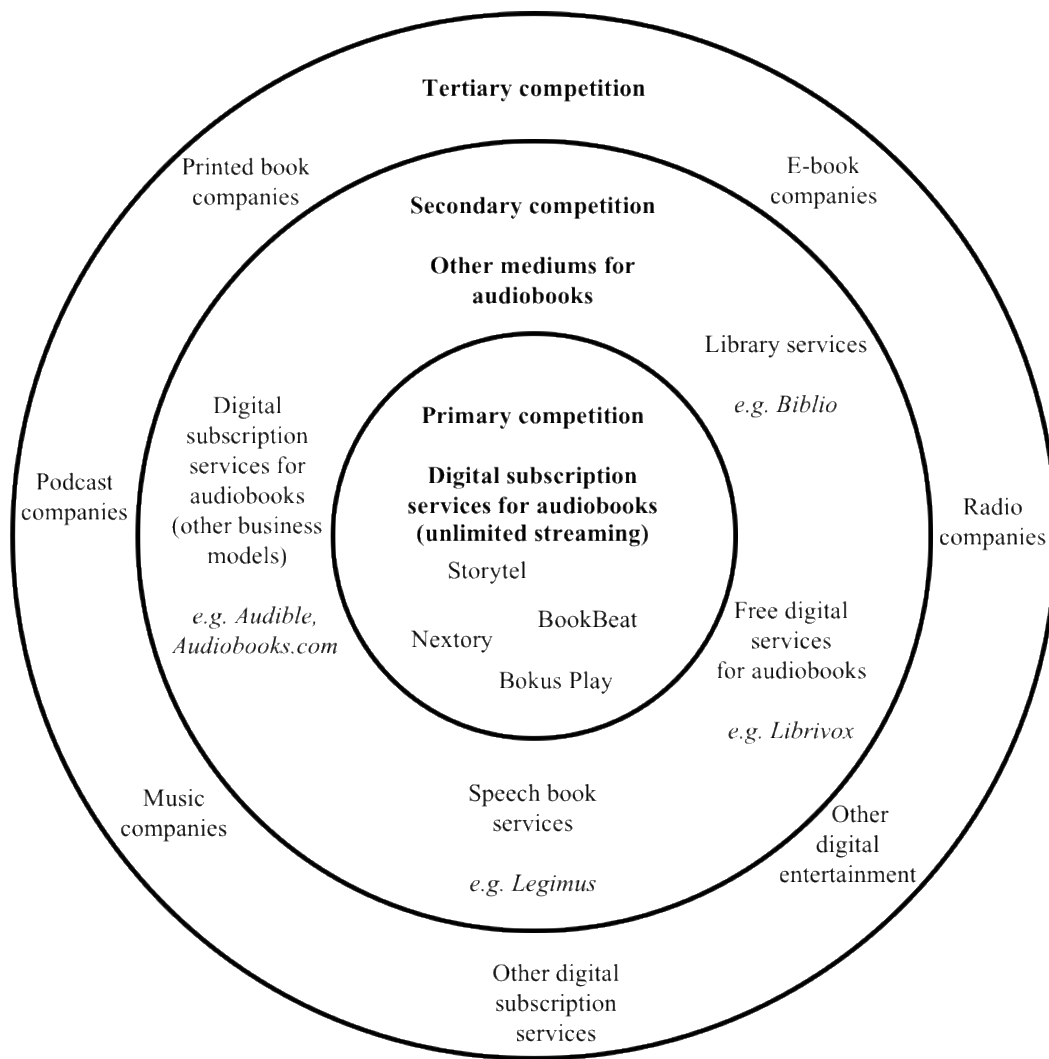
Storytel is the leading service in Sweden today, with 800 000+ subscribers and a presence in 16 geographical markets (Storytel, 2019). BookBeat has 150 000+ subscribers and exists in four geographical markets (*Om BookBeat*, n.d.). Nextory exists in three geographical markets (*Om Nextory AB*, 2018). Notably, Nextory was the first company in Sweden to offer a digital subscription service for unlimited listening and reading of audiobooks and e-books, then named E2GO (*Om Nextory AB*, 2018). Bokus Play is the industry's newest competitor, which launched in March 2018 by the online book retailer Bokus and only exists in Sweden (*Om Bokus*, 2019). Neither Nextory nor Bokus Play have announced their number of subscribers.

A significant difference between the services is that BookBeat is owned by Bonnier, the largest publishing house in Sweden (*Bonnierförlagen.se*, n.d.), entailing clear advantages. Besides substantial financial backing, Storytel, Nextory, and Bokus Play rely on Bonnier's titles. Bonnier has previously used their power to negotiate favourable contracts with Storytel (Schmidt & Strömberg, 2018), and to terminate their agreements with Storytel because they were unhappy with Storytel's financial terms and Storytel's marketing of Bonnier's books (Olsson, 2019).

Whilst limited differentiation, price competition, and hostile relationships between the services imply significant rivalry, there are also mitigating factors such as high growth rates and low fixed costs. Thus, the overall industry rivalry is considered moderate.

### **Overview of competition**

Secondary competitors include digital services for audiobooks with other offerings than unlimited listening subscriptions. Tertiary competitors include other book mediums, and forms of storytelling and digital entertainment. See Figure 2 for an overview and Appendix 1 for details on the secondary competition.



**Figure 2:** Overview of primary, secondary, and tertiary competitors for digital subscription services for audiobooks in Sweden

#### 1.4.3. Threat of entry

Technological developments have decreased entrance barriers to the industry, for example lessening geographical limitations, improving scalability, and improving digital and audio format production. Simultaneously, there is a growing consumer demand for portable formats (Bergström et al., 2017) and high growth rates within the industry (Wikberg, 2019), further heightening the threat of entry. Factors lessening this threat include the difficulties of differentiating one's service and becoming profitable quickly<sup>1</sup>, as well as the powerful positions of the three dominating services. However, the threat of entry is still concluded to be high.

<sup>1</sup> Neither Storytel, BookBeat nor Nextory are profitable today (Wikberg, 2019).

#### 1.4.4. Buyer power

Digital subscription services for audiobooks is primarily a business-to-consumer business. Factors decreasing buyer power include purchases not being concentrated in large volumes and the low risk of backward integration. A factor increasing buyer power is the services being largely undifferentiated. Overall, the buyer power is considered weak.

#### 1.4.5. Supplier power

Suppliers primarily consist of audiobook publishers, and their power is deemed to be weak to moderate. An abundance of suppliers and the backwards integration of the digital subscription services has proven to be a credible threat, especially considering Storytel's acquisitions of book publishers like Norstedts (Storytel, 2019) and BookBeat belonging to Bonnier (*Bonnierförlagen.se*, n.d.). Factors increasing their power include their industry being an important supplier group to the service companies, their possibilities of forwards integration, and their products being somewhat differentiated for each individual book.

### 1.5. Problem formulation

With the innovation and growth of new products and services come opportunities and challenges, including changing consumer behaviour. Understanding one's consumers is essential for basic marketing concepts such as segmentation, targeting, and positioning (Dibb & Simkin, 1991). With the current research gap and increasing momentum of digital subscription services, there is a need for all actors on the Swedish book market to better understand consumers of audiobooks and their digital subscription services.

### 1.6. Purpose and research question

This thesis aims to provide insight as to who the consumers of audiobooks and digital subscription services for audiobooks are, as well as what factors influence their attitudes and behavioural intentions. Based on this purpose, the research question of this thesis is:

*Which factors correlate with Swedish book readers' attitudes and behavioural intentions for audiobooks and digital subscription services for audiobooks?*

### 1.7. Delimitations

This study is geographically limited to Sweden, as it is one of two leading countries for digital subscription services for audiobooks<sup>2</sup> (Storytel, 2019) and geographically

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<sup>2</sup> The other is the United States of America (Storytel, 2019).

convenient for the authors. Reading is limited to leisure time reading, excluding non-readers and reading for study or work. This is because leisure time reading is assumed to be the main purpose of digital subscription services for audiobooks, and it is assumed that behaviour differs for different reading purposes. Digital subscription services for audiobooks are restricted to those who offer subscriptions for unlimited listening at a cost, thus including services like Storytel, BookBeat, and Nextory, and excluding services like Biblio and Audible. This is because the idea of a free versus fee-based service, and unlimited versus limited listening, are expected to have differing effects on behaviour.

## 1.8. Expected contribution

Whilst there exists literature about audiobooks, recent technological advancements have made much of it outdated, and relatively little is marketing focused. Literature about digital subscription services exists, but only a limited amount in an audiobook context. Furthermore, Sweden is a relatively unexplored market within the literature of these subjects. The authors aim to help fill the research gap of what factors correlate with consumer behaviour relating to audiobooks and digital subscription services for audiobooks in today's society.

## 1.9. Thesis disposition

To answer the research question, the thesis will have the following disposition. First, existing literature related to the problem formulation is presented. Second, the method for the empirical study on which the thesis is based on is explained. Third, the study's results and corresponding analysis are presented. Fourth, a discussion on the study's implications for the Swedish book market and suggestions for future research is presented.

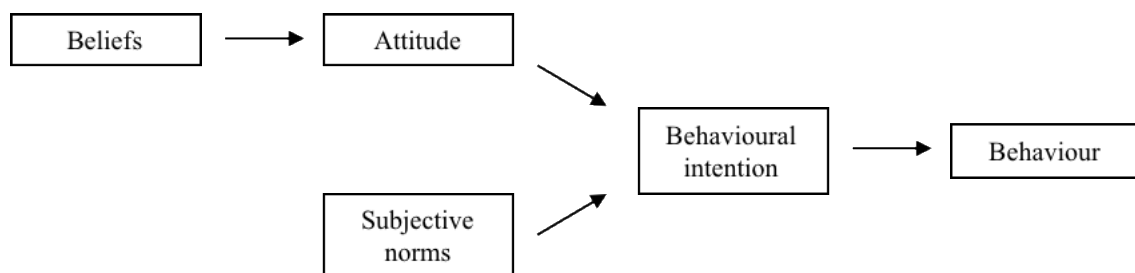
## 2. Previous research and literature

### 2.1. Consumer behaviour

The following theories build the theoretical framework used to answer the outlined research question. As per the purpose of this thesis, the theoretical framework focuses on consumer behaviour.

#### 2.1.1. The Theory of Reasoned Action

Fishbein and Ajzen's (1975) Theory of Reasoned Action is one of the most recognised theories within behavioural psychology. According to this theory, beliefs affect attitude, which together with subjective norms affect behavioural intention, which in turn affects actual behaviour (Figure 3).



**Figure 3:** Visualisation of the Theory of Reasoned Action

These concepts are defined as follows:

**Belief:** “the information [a person] has about [an] object” (Fishbein & Ajzen, 1975, p. 12)

**Attitude:** “a person’s general feeling of favourableness or unfavourableness toward some stimulus object” (Fishbein & Ajzen, 1975, p. 216)

**Subjective norms:** “a person’s perception that most people who are important to [them] think [they] should or should not perform the behaviour in question” (Fishbein & Ajzen, 1975, p. 302)

**Behavioural intention:** “a person’s intentions to perform various behaviours” (Fishbein & Ajzen, 1975, p. 12)

**Behaviour:** “observable acts that are studied in their own right” (Fishbein & Ajzen, 1975, p. 13)

H1a: Attitude towards audiobooks has a positive effect on the intention to use audiobooks

H1b: Subjective norms have a positive effect on the intention to use audiobooks

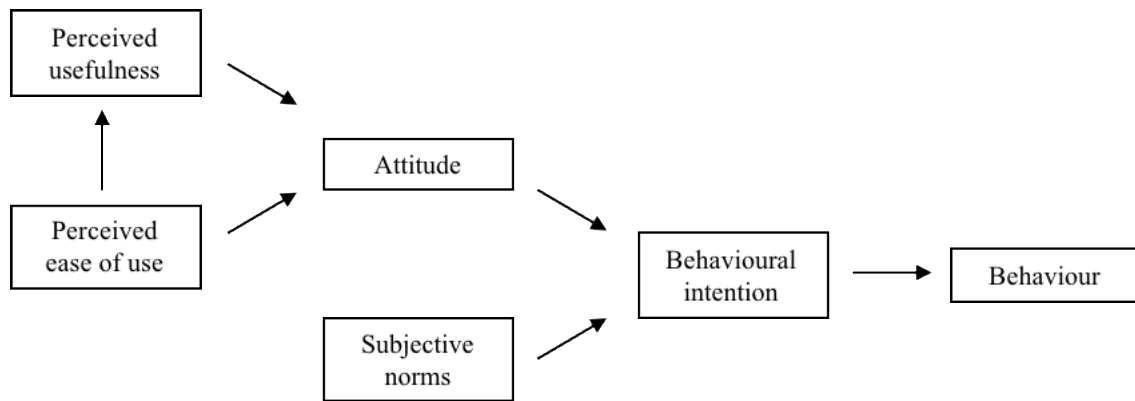
### 2.1.2. The Technology Acceptance Model

The Technology Acceptance Model introduced by Davis (1985) is a widespread adaptation of the Theory of Reasoned Action used to explain why people accept or reject information technology. The original model and subsequent adaptations have been used to explain consumer behaviour relating to digital audiobooks in the past (e.g. Aristizábal & Bergqvist, 2018; Munzel, Lück & Tegelkamp, 2014), as well as other types of digital reading (e.g. Antón, Camarero & Rodríguez, 2013; Torres, Johnson & Imhonde, 2014), although on a limited scale. In its simplest form (Davis, 1985; Davis, 1989; Davis, Bagozzi & Warshaw, 1989), attitude is a function of two beliefs, perceived usefulness and perceived ease of use, which influence behavioural intention, and in turn actual behaviour. These beliefs are defined as follows:

**Perceived usefulness:** “the degree to which an individual believes that using a particular system would enhance his or her job performance” (Davis, 1985, p. 26)

**Perceived ease of use:** “the degree to which an individual believes that using a particular system would be free of physical and mental effort” (Davis, 1985, p. 26)

Davis (1985) does not include subjective norms in his original model. However, it has been included in several adaptations since, with evidence of its significance (e.g. Rogers, 2003; Venkatesh & Davis 2000; Venkatesh 2000). Regarding reading mediums specifically, Williams, Slade and Dwivedi (2014) found that subjective norms are highly influential for the intention to use e-books rather than printed books. With this in mind, the authors use a simple form of the Technology Acceptance Model including subjective norms in Figure 4.



**Figure 4:** Visualisation of the Technology Acceptance Model including subjective norms

H2a: Attitude towards digital subscription services for audiobooks has a positive correlation with the intention to use digital subscription services for audiobooks.

H2b: Subjective norms have a positive correlation with the intention to use digital subscription services for audiobooks.

H3a: Perceived usefulness has a positive correlation with the attitude towards digital subscription services for audiobooks.

H3b: Perceived ease of use has a positive correlation with the attitude towards digital subscription services for audiobooks.

Since being introduced, the Theory of Reasoned Action and Technology Acceptance Model have been both expanded upon and criticised. Critique towards the former includes it disregarding the influence of past behaviour on examined behaviour, which other studies have found evidence of (e.g. Reinecke, Schmidt & Ajzen, 1991; Rhodes & Courneya, 2003; Yzer et al. 2004). The latter can be criticised for not being consistent in its results, as shown in Legris, Ingham and Colletette's (2003) review of 22 empirical studies based on the model. An interesting critique towards the model in an audiobook context is Hsu and Lu's (2004) findings that perceived usefulness may not have a large effect on attitude towards entertainment technology. Despite certain limitations and shortcomings, the two theories are widely considered to be useful when studying attitude and behaviour.

## 2.2. Reading behaviour

The following theories have been selected based on their frequent presence and perceived importance in the literature review and prestudies (see section 3.2.). They are



all expected to contribute to the understanding of consumers' attitudes towards and behavioural intentions for audiobooks and digital subscription services for audiobooks.

#### 2.2.1. Need for cognition

Cognitive motivation is defined as the enjoyment from mentally effortful tasks (Cohen, Stotland & Wolfe, 1955, referred to in Cacioppo et al., 1996). Have and Stougaard Pedersen (2012), Have and Stougaard Pedersen (2016) and Rubery (2011) present studies showing that reading printed books requires more concentration than listening to audiobooks. Reading visually requires active interpretation and judgement, whilst listening puts the recipient in an uncritical state of relaxation (Rubery, 2011). Relatedly, mind wandering, which is the unintentional decoupling between external stimuli and internal thought, is also more common when listening to audiobooks than reading, resulting in decreased comprehension (Luhrman, 2014, referred to in Have & Stougaard Pedersen, 2016). Mind wandering has been found to occur more frequently during easy tasks than difficult tasks (Giambra, 1995; Smallwood, Obonsawin, & Heim, 2003a; Smallwood, Obonsawin, & Reid, 2003b).

H4a: Need for cognition has a negative effect on the attitude towards audiobooks.

#### 2.2.2. Preference for auditory experiences

Printed books and e-books engage consumers' visual sense, and to some extent their sense of touch from holding the book or mobile device (Have & Stougaard Pedersen, 2016). Audiobooks, however, engage the auditory sense, and potentially the sense of touch from interacting with headphones, touch screens, et cetera (Have & Stougaard Pedersen, 2016). All participants in the prestudy (see section 3.2.) believe that these sensorial differences are important differentiation points for book readers. Others claim that society is moving in a direction in which consumers are becoming increasingly indifferent to differences in visual and textual experiences (Katz, 2013, referred to in Have & Stougaard Pedersen, 2016).

H4b: Preference for auditory experiences has a positive effect on the attitude towards audiobooks.

#### 2.2.3. Polychronicity

According to the APA (2018), the top reason why people listen to audiobooks is because they can perform other tasks simultaneously, which was reiterated by all prestudy participants (see section 3.2.). Commonly performed tasks while listening include driving and cleaning (APA, 2019). This sentiment is reminiscent of

multitasking, defined as engagement in multiple tasks essentially at the same time (Sanderson, 2012). Have and Stougaard Pedersen (2012) suggest that multitasking remedies everyday monotony. Relatedly, polychronicity is the preference for multitasking as opposed to performing a single task at a time (Poposki & Oswald, 2010). Multitasking while listening to audiobooks is a specific example of multitasking providing “a means to exploit more of an individual’s potential in what would otherwise be a situation of excess capacity” (Kalenkoski & Foster, 2016, p. 3). Have and Stougaard Pedersen (2016) suggest long commuting distances, a typical situation in which individuals have excess capacity, as a driver for audiobook growth. Varao-Sousa, Smilek and Kingstone (2018) conclude that the unique nature of audiobooks welcomes multitasking, because it requires no motor or ocular focus.

H4c: Polychronicity has a positive effect on the attitude towards audiobooks.

#### 2.2.4. Need for companionship

Audiobook studies show that reading aloud is a form of intimate interaction that can generate feelings of safety, comfort and companionship, and even substitute human face-to-face activity (Horton and Wohl, 1997, referred to in Rubery, 2011; Schultz, 2004, referred to in Rubery, 2011). In a study by the APA (2012, referred to in Independent Publisher, 2013), 17% of the respondents reported a preference for audiobooks over other mediums because they like being read to. This sentiment was echoed in the prestudy focus group (see section 3.2.).

H4d: Need for companionship has a positive effect on the attitude towards audiobooks.

#### 2.2.5. Perceived portability

Another popular reason why people enjoy listening to audiobooks is because they are portable (APA, 2018; Have & Stougaard Pedersen, 2016). In research by Bergström et al. (2017), portability was important to interviewees because it meant not having to carry heavy physical books. Different audiobook formats have different levels of portability; the portability of digital subscription services allow for listening to audiobooks for example when travelling by public transport, working out, and shopping, all examples mentioned in the prestudy focus group (see section 3.2.). These would arguably be less convenient if using audiobook formats like CDs, cassette tapes, et cetera.

H3c: Perceived portability has a positive correlation with the attitude towards digital subscription services for audiobooks.

#### 2.2.6. Taxi meter effect

The taxi meter effect refers to consumers enjoying consumption more when based on flat rates than pay-per-use tariffs (Lambrecht & Skiera, 2006), because flat rates are more convenient and minimise the disutility of payment (DellaVigna & Malmedier, 2006; Prelec & Loewenstein, 1998; Soman, 2001). The term is derived from people's discomfort from watching taxi meters' continuous ticking; however, the phenomenon can be applied to a variety of services, including digital subscription services. Risk-averse consumers especially prefer the flat-rate payment option (Train, 1991).

H3d: The taxi meter effect has a positive correlation with the attitude towards digital subscription services for audiobooks.

#### 2.2.7. Need for time use efficiency

Related to multitasking and portability is time use efficiency, defined as “[making] the best use of one's time” (Kelly, 2002, p. 2). Digital subscription services for audiobooks is possibly the most time efficient format for consuming audiobooks, as it can be transported and used in most environments. Moreover, recent studies show that audiobook listeners believe that audiobooks help them finish books quicker than other mediums (APA, 2019; Kozlowski, 2018), and the authors' contact at Storytel (anonymous Storytel employee, 8 March 2019) highlighted the common function of increasing the reading pace of narrators as an appreciated one amongst users of digital subscription services for audiobooks.

H3e: Need for time use efficiency has a positive correlation with the attitude towards digital subscription services for audiobooks.

#### 2.2.8. Preference for trialability

Trialability in digital subscription services for audiobooks is highlighted as a positive by participants in the prestudy (see section 3.2.). The definition of trialability in this context is adapted by the authors from Rogers' (2003) definition as the degree to which a product can be experimented with. Digital subscription services allow consumers access to a large assortment of books to choose from. This seemingly eliminates the common worry of paying for an individual book one ends up not enjoying, as one can easily switch to another audiobook at no extra cost. The authors hypothesise that this

type of trialability is an important benefit for consumers of digital subscription services for audiobooks.

H3f: Preference for trialability has a positive correlation with the attitude towards digital subscription services for audiobooks.

## 2.2.9. Socio-demographic factors

Swedes are known to be avid readers and technology users. According to the national SOM questionnaires between 1995 and 2017 (referred to in Höglund & Wahlström, 2018), approximately 50% of Swedes read weekly and 80% yearly. In 2017, 27% of Swedes listened to an audiobook at least once (Höglund & Wahlström, 2018). Regarding technology, notable statistics include 98% of Swedes having internet access and 90% owning smartphones (Davidsson et al., 2018).

There are five particularly interesting socio-demographic variables when studying reading behaviour: gender, age, education level, main occupation, and income (Gaasenbeek, 1987 referred to in Stokmans, 1999). Regarding gender, women generally read more than men across a multitude of genres and mediums (Bergström et al., 2017; Höglund, 2012; Stokmans, 1999; Tepper, 2000). According to Arvin (2010, referred to in Have & Stougaard Pedersen, 2016), only 25% of printed books are bought by men. However, men are approximately half of audiobook listeners (Edison Research, 2016). In the case of digital audiobooks, it may be because men generally adopt new technology more readily (Bergström et al., 2017; Rogers, 2003).

Regarding age, research shows that it has no significant effect on leisure time reading (Stokmans, 1999), and that there are no particular age groups consuming audiobooks significantly more than another (Edison Research, 2016). The latter contradicts Höglund and Wahlström's (2018) findings of a preference for digital audiobooks amongst young and middle-aged readers. Relatedly, Bergström et al. (2017) found that the younger one is, the more likely one is to be an early adopter of technological innovations.

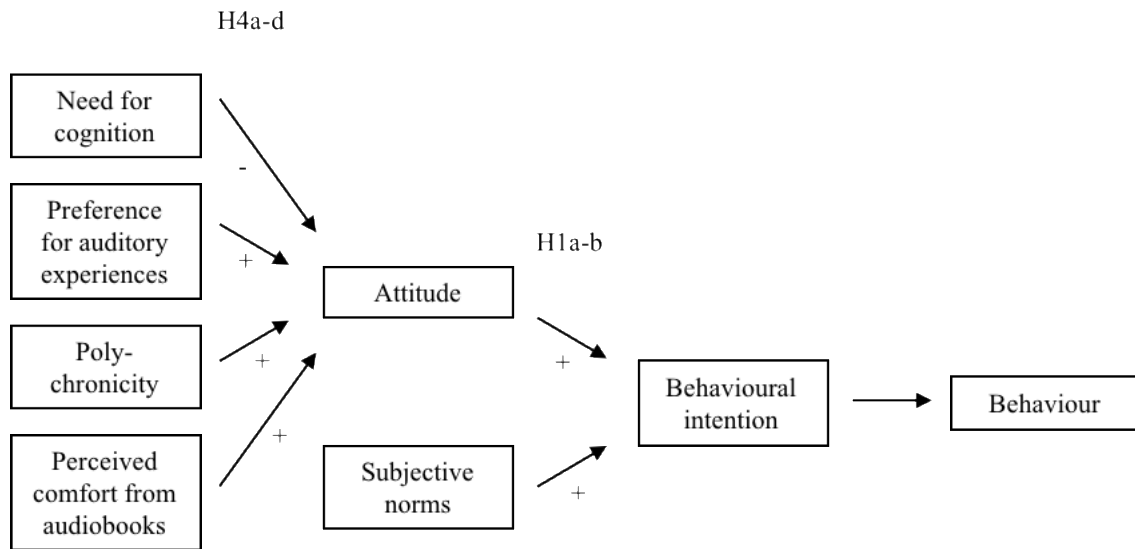
Regarding income, people with higher incomes are more likely to be early adopters of technological innovations (Rogers, 2003), and have better access to reading-enabling technologies (Bergström et al., 2017). In terms of reading behaviour, Stokmans (1999) suggests that income has no significant effect on leisure time reading. Regarding education, those with higher education generally read more across all mediums (Höglund & Wahlström, 2018), and are more likely to be early adopters of technological innovations (Rogers, 2003). The authors found limited research about the relationships between main occupation and reading behaviour and technological innovations, other than that main occupation is strongly correlated with age, income, and gender (Stokmans, 1999).

## 2.3. Overview of literature and hypotheses

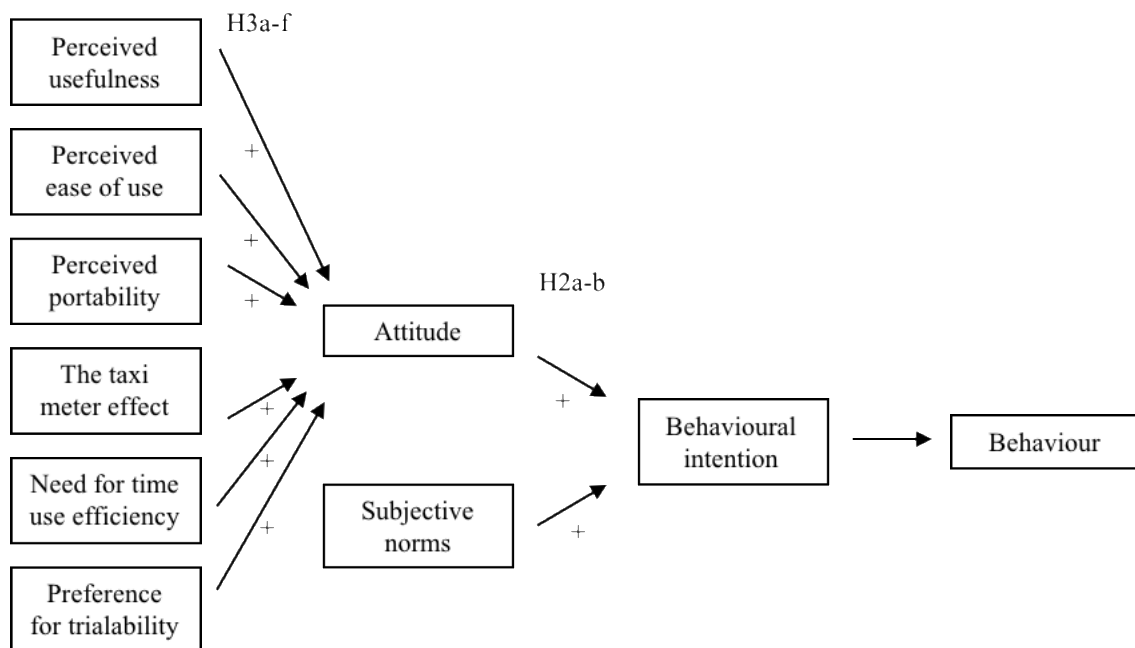
Factors potentially correlating with the attitude towards and intention to use audiobooks and digital subscription services for audiobooks are evidently plentiful. Literature used to form hypotheses is presented in Table 1 and hypotheses are presented in Figures 5-6.

**Table 1:** Overview of literature per factor

Factor	Literature
Need for cognition	Cohen, Stotland and Wolfe, 1955, referred to in Cacioppo et al., 1996; Giambra, 1995; Have & Stougaard Pedersen, 2012; Have & Stougaard Pedersen, 2016; Luhrman, 2014, referred to in Have & Stougaard Pedersen, 2016; Rubery, 2011; Smallwood et al., 2003a; Smallwood et al., 2003b
Preference for auditory experiences	Have & Stougaard Pedersen, 2016; Katz, 2013, referred to in Have & Stougaard Pedersen, 2016
Polychronicity	APA, 2018; APA, 2019; Have & Stougaard Pedersen, 2012; Have and Stougaard Pedersen, 2016; Kalenkoski & Foster, 2016; Poposki & Oswald, 2010; Sanderson, 2012; Varao-Sousa et al., 2018
Need for companionship	Horton and Wohl, 1997, referred to in Rubery, 2011; Independent Publisher, 2013; Schultz, 2004, referred to in Rubery, 2011
Perceived usefulness	Davis, 1985; Davis, 1989; Davis et al., 1989; Hsu and Lu, 2004
Perceived ease of use	Davis, 1985; Davis, 1989; Davis et al., 1989
Perceived portability	APA, 2018; Bergström et al., 2017; Have & Stougaard Pedersen, 2016
Taxi meter effect	DellaVigna & Malmedier, 2006; Lambrecht & Skiera, 2006; Prelec & Loewenstein, 1998; Soman, 2001; Train, 1991
Need for time use efficiency	APA, 2019; Kelly, 2002; Kozlowski, 2018
Preference for trialability	Rogers, 2003
Attitude	Davis, 1985; Davis, 1989; Davis et al., 1989
Subjective norms	Davis, 1985; Davis, 1989; Davis et al. 1989; Rogers, 2003; Venkatesh & Davis 2000; Venkatesh 2000



**Figure 5:** Summary of hypotheses related to audiobooks



**Figure 6:** Summary of hypotheses related to digital subscription services for audiobooks

### 3. Method

#### 3.1. Scientific approach to the research design

A deductive approach is used in this thesis. A quantitative, empirical research design using a self-completion questionnaire is deemed appropriate to answer the research question, as it enables analysis of many respondents' attitudes, as opposed to some other quantitative and many qualitative methods (Bryman & Bell, 2011).

#### 3.2. Prestudies

Prestudies were conducted to improve industry knowledge and understanding of consumer behaviour relating to audiobooks and digital subscription services. The prestudies supplemented the literature review and choice of variables for the study. Two semi-structured qualitative interviews with industry experts were conducted, continuous informal contact was held with a Storytel employee, and a focus group with frequent users of digital subscription services for audiobooks was performed. For more information, see Appendix 2. The prestudy also included a pilot test of the main study's questionnaire, using a convenience group of 22 participants.

#### 3.3. Design of questionnaire and variables

##### 3.3.1. Questionnaire study

An anonymous, self-completion, web questionnaire was designed using the online tool Qualtrics. The questions aiming to capture the theoretical variables of interest were based on already established instruments (see section 3.3.2.). All instruments were formatted as Likert scales for simpler computer analysis (Bryman & Bell, 2011). The instruments were translated into Swedish and the number of items per instrument were at times reduced to improve response rates<sup>3</sup> (Bryman & Bell, 2011).

The questionnaire contained 29 questions, viewable in Appendix 3. Depending on the respondent's answer to the first question of whether they listen to audiobooks or not, the questionnaire was conditioned and displayed differently. If the respondent had listened to an audiobook in the past year, the entire questionnaire was displayed. If the respondent had not, but read using another medium, the respondent was shown all

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<sup>3</sup> Shortening of instruments was done in the following fashion. First, an already established shortened version of the original instrument was used. Second, if no such shortened version was found, the statements with the highest Cronbach's alphas in combination with the highest relevancy for testing the variable and a good mix of reverse scored statements were compiled into a new, shortened version. Third, if Cronbach's alphas could not be found for each individual statement, the authors used their own reasoning and previous theory in choosing statements to be compiled into a new, shortened version, including aspects such as the situation, language, and length of the statement.

questions except those concerning digital subscription services for audiobooks, as they were assumed to not provide relevant responses for these questions in relation to the research question. If the respondent did not engage in leisure time reading, they were not asked any further questions.

Respondents were informed that each completed questionnaire would result in a donation to a book-related charity by the authors. Respondents were asked to answer the questionnaire only once.

### 3.3.2. Variables

The following instruments are used to investigate the factors outlined as relevant to the research question in section 2. Unless otherwise specified, the instruments have been used in their original format, for example the number of items, phrasing, and scale points.

#### **Need for cognition**

Need for cognition is measured using an index of five items (Appendix 3, Q12), revised from Cacioppo and Petty's (1982, referred to in Bearden & Netemeyer, 1999) Need for Cognition Scale. It was shortened by the authors from 34 items to five, to shorten the time required to complete the questionnaire. The items are scored using a Likert scale from 1 (strongly disagree) to 5 (strongly agree), as opposed to the original scale scored from -4 (very strong disagreement) to 4 (very strong agreement), for consistency with remaining questionnaire instruments.

#### **Preference for auditory experiences**

Preference for auditory experience is measured using an index of six statements (Appendix 3, Q13) revised from the Childers, Houston and Heckler's (1985, referred to in Bearden & Netemeyer, 1999) Style of Processing Scale. It was shortened by the authors from 22 items to six to shorten the time required to complete the questionnaire. In both the original and shortened scale, half of the items reflect a visual processing style, whilst the other half reflect a verbal processing style. The items are scored using a Likert scale from 1 (always false) to 4 (always true). The labels were flipped in comparison to the original scale in order to have low values to the left and high values to the right (Söderlund, 2005).

#### **Polychronicity**

Polychronicity is measured using an index of three statements (Appendix 3, Q14) revised from the original Polychronic-Monochronic Tendency Scale (Lindquist & Kaufman-Scarborough, 2007). The original scale was shortened by the authors from five to three items after feedback from the pilot study for improved relevancy. The items are scored using a Likert scale from 1 (strongly disagree) to 5 (strongly agree).



### **Need for companionship**

Need for companionship is measured using a version of the Comfort from Companion Animals Scale (Zasloff, 1996) adapted by the authors to an audiobook context, thus referred to as the Comfort from Audiobooks Scale (Appendix 3, Q15). Four of the original 13 items were adapted according to relevance for the study, and two completely new items were added that were deemed important and not possible to adapt from existing items. The items are scored using a Likert scale from 1 (strongly disagree) to 4 (strongly agree).

### **Perceived usefulness**

Perceived usefulness is measured using an index of four items (Appendix 3, Q16), adapted by the authors to an audiobook context from Torres, Johnson and Imhonde's (2014) Perceived Usefulness Scale. The items are scored using a Likert scale from 1 (strongly disagree) to 7 (strongly agree). The labels were flipped in comparison to the original scale in order to have low values to the left and high values to the right (Söderlund, 2005).

### **Perceived ease of use**

Perceived ease of use is measured using an index of four items (Appendix 3, Q17), adapted by the authors to an audiobook context from Torres, Johnson & Imhonde's (2014) Perceived Ease of Use Scale. The items are scored using a Likert scale from 1 (strongly disagree) to 7 (strongly agree). The labels were flipped in comparison to the original scale in order to have low values to the left and high values to the right (Söderlund, 2005).

### **Perceived portability**

Perceived portability is measured using an index of four items (Appendix 3, Q18), revised from the original System Portability Scale (Scornavacca, 2014). It was shortened by the authors from nine to four items, as the remaining five were deemed irrelevant for the study, because they refer to physical objects. The items are scored using a Likert scale from 1 (strongly disagree) to 7 (strongly agree).

### **The taxi meter effect**

The taxi meter effect is measured using an index of four items (Appendix 3, Q19), adapted by the authors to an audiobook context from Lambrecht and Skiera's (2006) Taxi Meter Effect Scale. The scoring of the original scale was not presented, and thus the authors use a Likert scale from 1 (strongly disagree) to 7 (strongly agree), as 7-point Likert scales are commonly used and useful in measuring spread (Söderlund, 2005).

### **Preference for trialability**

Preference for trialability is measured using an index of five statements (Appendix 3, Q20), adapted by the authors to an audiobook context from Parker, Lehmann and Xie's (2016) Decision Comfortability Scale. The adapted scale aims to capture the comfort of the respondent in choosing between purchasing individual audiobooks and subscribing to a digital subscription service which offers a vast assortment of audiobooks. The original scoring using a 10-point Likert scale was shortened to a Likert scale from 1 (strongly disagree) to 7 (strongly agree). This is because 5 or 7-point Likert scales are considered more user friendly than 11-point ones, the latter being closer to the original 10-point scale (De Bruijne & Wijnant, 2014).

### **Need for time use efficiency**

Need for time use efficiency is measured using an index of seven statements (Appendix 3, Q21) from Kelly's (2003) Time Use Efficiency Scale. The items are scored using a Likert scale from 1 (strongly disagree) to 7 (strongly agree).

### **Attitude towards audiobooks and digital subscription services for audiobooks**

The two attitude variables are measured using an index of six items (Appendix 3, Q6 & Q9), adapted to an audiobook and digital subscription service for audiobooks context from Bruner and Hensel's (1992, referred to in Nambisan & Watt, 2011) Attitude Towards Product Scale. The original scale was shortened by the authors from eleven items to six to shorten the time required to complete the questionnaire, and adapted by the authors by adding the word "very" to each end label, using feedback from the pilot study. The items are scored using a Likert scale from 1 (strongly disagree) to 5 (strongly agree).

### **Subjective norms for audiobooks and digital subscription services for audiobooks**

The two subjective norm variables are measured using one item each (Appendix 3, Q8 & Q11), adapted by the authors to an audiobook and digital subscription service for audiobook context from Chuchinprakarn's (2011) Subjective Norm Scale. The items are scored using a Likert scale from 1 (should not use) to 5 (should use).

### **Intention to use audiobooks and digital subscription services for audiobooks**

The two behavioural intention variables are measured using an index made of three items (Appendix 3, Q7 & Q10), adapted by the authors to an audiobook and digital subscription service for audiobooks context from Chuchinprakarn's (2011) Intention to Shop On-line Scale. The items are scored using a Likert scale from 1 (strongly disagree) to 5 (strongly agree).

### 3.4. Data collection

The questionnaire was distributed between the 1st and 7th of April 2019. It was distributed in book and audiobook forums on Facebook, in an email to participants of the SSE Literary Agenda<sup>4</sup>, and using the authors' personal social media accounts<sup>5</sup>. See Appendix 4 for distribution details. This method was chosen to target active readers of all book mediums and audiobooks specifically, as per the research question. For critique against this method, see section 5.3.2.

The collected data was exported for analysis to the statistics programme SPSS Version 25. The study had a total of 1 535 respondents. After excluding responses that were incomplete, had inadequate response times<sup>6</sup> and from respondents who did not read, the complete number of responses were 958<sup>7</sup>.

### 3.5. Reliability, validity and generalisability

Reliability is the consistency of a measure (Söderlund, 2005). To ensure high internal consistency, well-tested instruments from published academic research with high consistency and reliability, were used in the questionnaire, which was also pilot-tested (Söderlund, 2005). The questionnaire included questions asking respondents to judge the quality of the questionnaire as a measure for reliability (Sjöberg & Björklund, 1995). For the total number of valid responses ( $N = 958$ ), the indexed mean was 3.88 of 5, considered by the authors to reflect sufficient reliability. After the data collection, reliability was improved by excluding extreme responses (see section 3.4.), and by measuring Cronbach's alphas for indexes (Söderlund, 2005). A Cronbach's alpha equal to, or higher than 0.7<sup>8</sup>, was considered to be sufficient (Söderlund, 2005). See Appendix 5 for Cronbach's alphas of indexed variables.

Validity is the extent a measure of a concept is free from random and systematic errors (Söderlund, 2005). To improve the accuracy of the prestudies, interview transcripts were sent to and approved by the participants. In the study, content validity (Söderlund,

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<sup>4</sup> A book circle project at the Stockholm School of Economics.

<sup>5</sup> 106 responses (11%) of the total amount valid responses ( $N = 958$ ) found the questionnaire via the authors' personal social media accounts, and 852 responses (89%) via the remaining distribution channels, all considered to be book or audiobook related.

<sup>6</sup> Inadequate response times were determined with reference to the recommended response time from Qualtrics and the distribution of the recorded response times. For those reporting that they did not use digital subscription services, i.e. those who answered a shorter questionnaire, response times under 180 seconds and over 1500 seconds were considered inadequate. For those reporting that they did use digital subscription services, i.e. those who answered a longer questionnaire, response times under 300 seconds and over 2000 seconds were considered inadequate.

<sup>7</sup> Referred to as the total sample size ( $N$ ).

<sup>8</sup> Preference for auditory experiences was excluded from further analysis, as its indexed variable had a Cronbach's alpha of 0.22. One reversed question statement in the index for Perceived portability was removed with the benefit of an increased Cronbach's alpha (Söderlund, 2005); the tool was still considered to be useful.

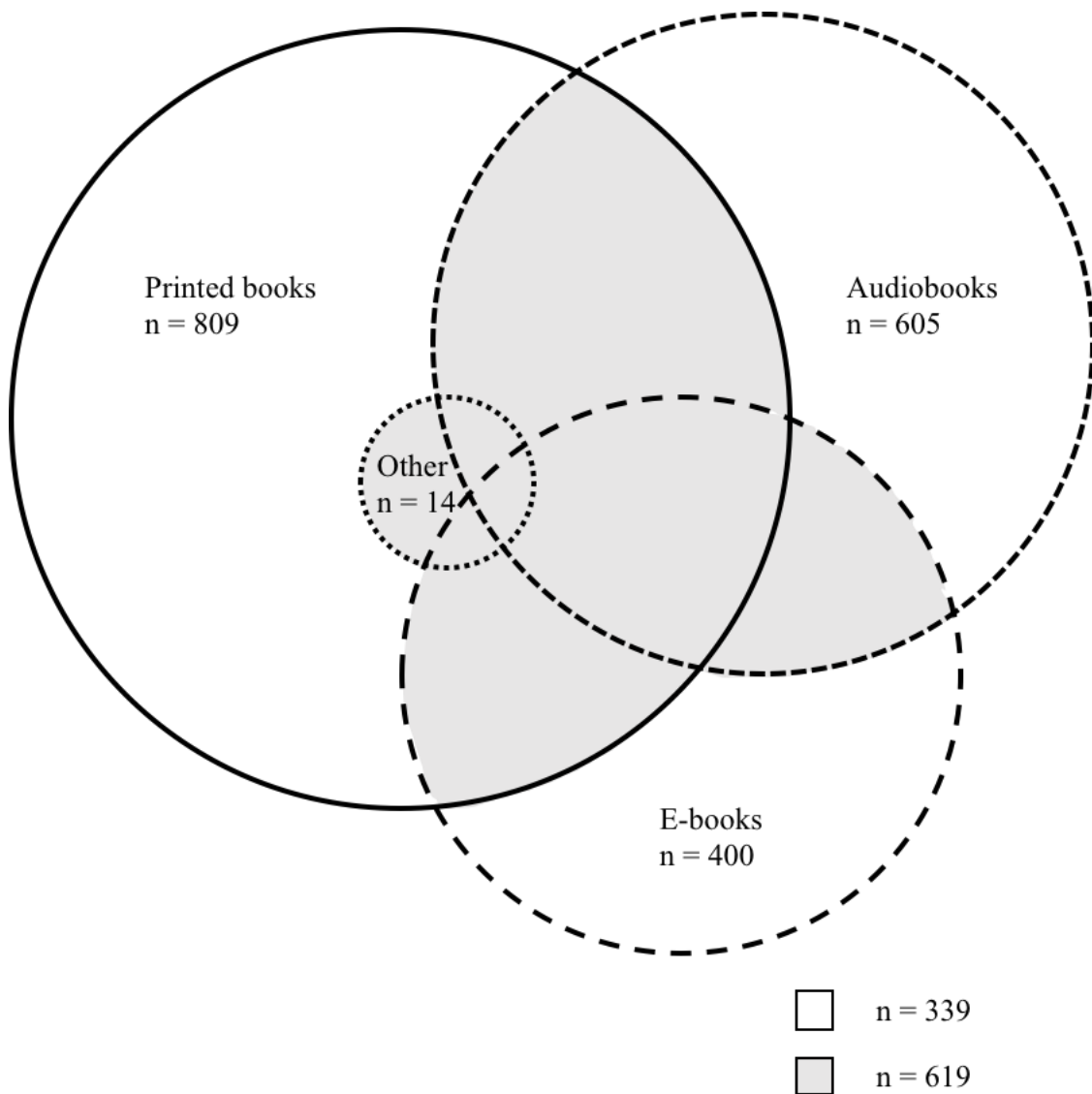
2005) was strengthened by revising the questionnaire's instruments to mirror the thesis' research question based on feedback from the prestudies. Concurrent and predictive validity (Bryman & Bell, 2011) was incorporated in the research design by excluding non-readers, and measuring attitude, behavioural intention, and self-reported behaviour, respectively.

Generalisation is whether a sample is representative or not (Bryman & Bell, 2011). In the study, generalisation was enhanced by comparing the socio-demographic results with the Swedish population (see Appendix 6).

## 4. Results

### 4.1. Results for consumer behaviour related to audiobooks

Figure 7 presents the book mediums used by the total number of respondents (N = 958). Examples of “Other” include speech books and radio serials.



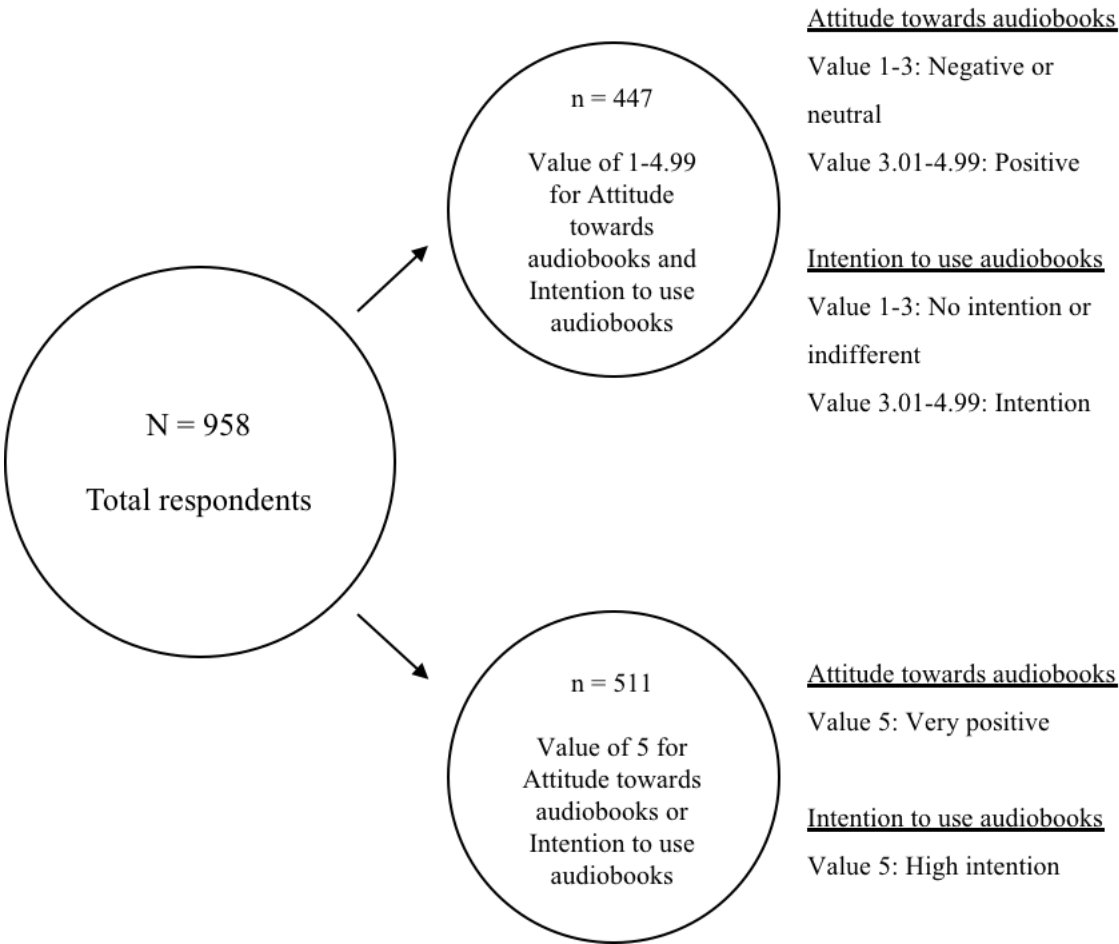
**Figure 7:** Book mediums used by the total sample size (N = 958) in the past 12 months<sup>9</sup>

A linear regression analysis could not be performed with the collected data to examine attitude towards and intention to use audiobooks, as the related normality assumption was not fulfilled (Poole & O’Farrell, 1970). Due to the nature of the data and the

<sup>9</sup> Respondents could report all alternatives that applied to them.

research question, a binary logistic regression analysis is used to examine attitude towards and intention to use audiobooks, and analysis of descriptive statistics and correlations is used to study the attitude towards and intention to use digital subscription services for audiobooks. The results of the linear regression analyses differed from the binary logistic, primarily by additional independent variables being statistically significant. See Appendix 7 for results of linear regression analyses.

Furthermore, respondents with a reported value of 5 (i.e. the highest possible value) for attitude towards audiobooks or intention to use audiobooks are excluded from the regression analyses, in order to satisfy related assumptions. These respondents are analysed using only descriptive statistics. See Appendix 8 for details on the analysis method. The respondent groups used are presented in Figure 8.



**Figure 8:** Division of responses after reported attitude towards and intention to use audiobooks

Tables 2-3 present descriptive statistics for the six respondent groups presented in Figure 8. The descriptive statistics concern socio-demographic variables of interest for the research question.

**Table 2:** Descriptive statistics (valid responses, means, and standard deviations) for the three respondent groups used for study of audiobooks

	Respondent group	Total responses	Valid responses	Mean	Standard deviation
Age [years]	Total respondents	N = 958	953	47	15.17
	Very positive. High intention.	n = 511	509	49	12.61
	Negative or neutral; positive. No intention or indifferent; intention	n = 447	444	45	17.43
Monthly income pre-tax	Total respondents	N = 958	802	40 604	64 111
	Very positive. High intention.	n = 511	434	41 855	66 587
	Negative or neutral; positive. No intention or indifferent; intention	n = 447	368	39 128	61 119
Monotony of main occupation*	Total respondents	N = 958	958	1.61	0.90
	Very positive. High intention.	n = 511	511	1.62	0.94
	Negative or neutral; positive. No intention or indifferent; intention.	n = 447	447	1.60	0.85
Average commute time	Total respondents	N = 951	958	15-29	._**
	Very positive. High intention.	n = 509	511	15-29	._**
	Negative or neutral; positive. No intention or indifferent; Intention.	n = 442	447	15-29	._**

\* Scale points: 5.

\*\* Not applicable.

**Table 3:** Descriptive statistics (percentages) for the three respondent groups used for study of audiobooks

		Total respondents (N= 958)	Very positive. High intention. (n = 511)	Negative or neutral; positive. No intention or indifferent; intention. (n = 447)
Gender	Women	90.8%	94.9%	86.1%
	Men	8.8%	5.1%	13.0%
	Other	0.4%	0%	0.9%
Education	High school degree	25.2%	26.8%	23.3%
	Bachelor's degree	42.7%	39.3%	46.5%
	Master's degree	20.6%	19.4%	21.9%
	Other	11.5%	14.5%	8.3%
Main occupation	Working	62.2%	69.9%	53.5%
	Studying	14.2%	7.6%	21.7%
	Other	23.6%	22.5%	24.8%
Reading difficulty	Yes	2.7%	3.3%	2.0%
	No	96.8%	95.9%	97.8%
	Do not know/ want to say	0.5%	0.8%	0.2%

#### 4.1.1. Regression analysis for consumer behaviour related to audiobooks

Tables 4-6 present descriptive statistics for each independent variable used in the regression analyses (n = 447). For the dichotomous variables, frequencies are used. For the ordinal variables, means are used.



**Table 4:** Frequencies (and percentages) for each dichotomous dependent variable used for the binary logistic regression analyses for audiobooks

	Negative or neutral / No intention/indifferent	Positive / Intention	n
Attitude towards audiobooks (dichotomous)	258 (57.7%)	189 (42.3%)	447 (100%)
Intention to use audiobooks (dichotomous)	266 (59.5%)	181 (40.5%)	447 (100%)

**Table 5:** Descriptive statistics for each independent variable in the binary logistic regression analysis for attitude towards audiobooks

	Mean	Standard deviation	n
Need for cognition*	3.96	0.63	447
Polychronicity*	3.11	0.91	447
Need for companionship**	2.14	0.71	447

\* Scale points: 5.

\*\* Scale points: 4

**Table 6:** Descriptive statistics for each independent variable in the binary logistic regression analysis for intention to use audiobooks

	Mean	Standard deviation	n
Attitude towards audiobooks*	2.96	0.86	447
Subjective norms for audiobooks*	3.11	0.84	447

\* Scale points: 5.

Spearman's rank-order correlation test was performed to determine the correlation between the dependent variables and their respective independent variables, shown in table 7-8. The test was performed using the respondent group used for the regression analyses (n = 447).

**Table 7:** Spearman's rank-order correlation test for independent variables correlation with attitude towards audiobooks

	Attitude towards audiobooks (dichotomous) (n = 447)	
	$\rho$	Correlation strength***
Need for cognition	-0.11*	Small
Polychronicity	0.17**	Small
Need for companionship	0.54**	Large

\* Correlation is significant at the 0.05 level (two-tailed).

\*\* Correlation is significant at the 0.01 level (two-tailed).

\*\*\* Small ( $\rho = 0.10$  to  $0.29$ ), Medium ( $\rho = 0.30$  to  $0.49$ ), and Large ( $\rho = 0.50$  to  $1.0$ ) classifications according to Pallant (2013).

**Table 8:** Spearman's rank-order correlation test for independent variables correlation with intention to use audiobooks

	Intention to use audiobooks (dichotomous) (n = 447)	
	$\rho$	Correlation strength***
Attitude towards audiobooks	0.58**	Large
Subjective norms for audiobooks	0.30**	Medium

\* Correlation is significant at the 0.05 level (two-tailed).

\*\* Correlation is significant at the 0.01 level (two-tailed).

\*\*\* Small ( $\rho = 0.10$  to  $0.29$ ), Medium ( $\rho = 0.30$  to  $0.49$ ), and Large ( $\rho = 0.50$  to  $1.0$ ) classifications according to Pallant (2013).

To assess the impact of a number of factors on the likelihood that respondents would report a positive attitude towards audiobooks, the following binary logistic regression was performed:

$$\text{Attitude towards audiobooks} = \beta_0 + \beta_1 \text{Need for cognition} + \beta_2 \text{Polychronicity} + \beta_3 \text{Need for comfort}$$

The model, Model A, excluding standard residual outliers<sup>10</sup>, was statistically significant,  $\chi^2(3, n = 433) = 206.12$ . It had a Nagelkerke  $R^2$  of 0.51 and correctly classified 78.5% of cases. It passed the Hosmer and Lemeshow test, indicating a good fit (Pallant, 2013). In Table 9, the B values, Wald statistics and odds ratios for each independent variable in Model A are presented.

**Table 9:** Binary logistic regression analysis between independent variables and attitude towards audiobooks (dichotomous dependent variable)

	Model A (n = 447)		
	B	Wald	Odds ratio
Need for cognition	0.13	0.35	1.14
Polychronicity	0.24	2.64	1.28
Need for companionship	2.91*	100.22	18.28
Constant	-8.13*	43.25	0.00

\*  $p < 0.05$

To assess the impact of a number of factors on the likelihood that respondents would report an intention to use audiobooks, the following binary logistic regression was performed:

$$\begin{aligned} \text{Intention to use audiobooks} = & \beta_0 + \beta_1 \text{Attitude towards audiobooks} \\ & + \beta_2 \text{Subjective norms for audiobooks} \end{aligned}$$

The model, Model B, excluding standard residual outliers<sup>11</sup>, was statistically significant,  $\chi^2(2, n = 437) = 235.53$ . It had a Nagelkerke  $R^2$  of 0.56 and correctly classified 80.1% of cases. It passed the Hosmer and Lemeshow test, indicating a good fit (Pallant, 2013). In Table 10, the B values, Wald statistics and odds ratios for each independent variable in Model B are presented.

<sup>10</sup> A total of 14 cases with standard residual values above 2.5 or below -2.5 in accordance with a 99% confidence interval (Pallant, 2013).

<sup>11</sup> A total of 10 cases with standard residual values above 2.5 or below -2.5 in accordance with a 99% confidence interval (Pallant, 2013).

**Table 10:** Binary logistic regression analysis between independent variables and intention to use audiobooks (dichotomous dependent variable)

	Model B (n = 437)		
	B	Wald	Odds ratio
Attitude towards audiobooks	2.66*	91.42	14.31
Subjective norms for audiobooks	1.01*	21.80	2.76
Constant	-11.91*	95.09	0.00

\*  $p < 0.05$

## 4.2. Segmented analysis for consumer behaviour related to audiobooks

Segmentation analyses were performed to study the attitudes and intentions of particularly interesting groups<sup>12</sup>. Segmentation was based on usage, a common segmentation base in marketing (Weinstein, 2001), and gender, another common segmentation base and a socio-demographic factor of interest for reading behaviour (Gaasenbeek, 1987 referred to in Stokmans, 1999).

### 4.2.1. Segmentation based on reading frequency of printed books

Model A was adjusted for respondents' reading frequency of printed books<sup>13</sup>. The model for infrequent readers of printed books<sup>14</sup> (Model A<sub>1</sub>) was statistically significant,  $\chi^2(3, n = 102) = 46.60$ . It had a Nagelkerke  $R^2$  of 0.49 and correctly classified 76.5% of cases. The model for frequent readers of printed books (Model A<sub>2</sub>) was statistically significant,  $\chi^2(3, n = 322) = 157.90$ . It had a Nagelkerke  $R^2$  of 0.53 and correctly classified 79.8% of cases. In Table 11, the B values, Wald statistics and odds ratios for each independent variable in Model A<sub>1</sub> and A<sub>2</sub> are presented.<sup>15</sup>

<sup>12</sup> NB! Additional segmentation analyses as well as analyses of potential control variables were performed, but only those considered most crucial to the thesis were included based on word restraints and scope.

<sup>13</sup> NB! The model was not tested for non-readers of printed books, as this group's respondents were too few ( $n = 6$ ) (Hair Jr., Black, Babin, & Anderson, 2014).

<sup>14</sup> Defined as those who read printed books less than on a weekly basis, meaning frequent readers are those who read on a weekly basis.

<sup>15</sup> Both models passed the Hosmer and Lemeshow test, indicating a good fit (Pallant, 2013).

**Table 11:** Binary logistic regression analysis between independent variables and attitude towards audiobooks (dichotomous dependent variable) for infrequent (A<sub>1</sub>) and frequent readers (A<sub>2</sub>) of printed books

	Model A <sub>1</sub> Infrequent readers (n = 102)			Model A <sub>2</sub> Frequent readers (n = 322)		
	B	Wald	Odds ratio	B	Wald	Odds ratio
Need for cognition	0.67	2.30	1.95	-0.03	0.01	0.97
Polychronicity	0.03	0.01	1.03	0.33	3.16	1.39
Need for companionship	2.85*	22.82	17.24	3.09*	74.99	22.03
Constant	-9.51*	13.08	0.00	-8.11*	28.53	0.00

\* p < 0.05

Model B was adjusted for respondents' reading frequency of printed books<sup>16</sup>. The model for infrequent readers of printed books (Model B<sub>1</sub>) was statistically significant,  $\chi^2(2, n = 102) = 70.65$ . It had a Nagelkerke  $R^2$  of 0.67 and correctly classified 82.4% of cases. The model for frequent readers of printed books (Model B<sub>2</sub>) was statistically significant,  $\chi^2(2, n = 327) = 160.67$ . It had a Nagelkerke  $R^2$  of 0.53 and correctly classified 78.6% of cases. In Table 12, the B values, Wald statistics and odds ratios for each independent variable in Model B<sub>1</sub> and B<sub>2</sub> are presented.<sup>17</sup>

**Table 12:** Binary logistic regression analysis between independent variables and intention to use (dichotomous dependent variable) for infrequent (B<sub>1</sub>) and frequent readers (B<sub>2</sub>) of printed books

	Model B <sub>1</sub> Infrequent readers (n = 102)			Model B <sub>2</sub> Frequent readers (n = 327)		
	B	Wald	Odds ratio	B	Wald	Odds ratio
Attitude toward audiobooks	3.28*	25.24	26.51	2.52*	62.64	12.47
Subjective norms for audiobooks	1.49*	5.65	4.44	0.93*	15.41	2.53
Constant	-15.59*	22.22	0.00	-11.18*	68.90	0.00

\* p < 0.05

<sup>16</sup> NB! The model was not tested for non-readers of printed books, as this group's respondents were too few (n = 6) (Hair Jr. et al., 2014).

<sup>17</sup> Both models passed the Hosmer and Lemeshow test, indicating a good fit (Pallant, 2013).

#### 4.2.2. Segmentation based on reading frequency of audiobooks

Model A was adjusted for respondents' reading frequency of audiobooks. The model for infrequent readers of audiobooks<sup>18</sup> (Model A<sub>3</sub>) was statistically significant,  $\chi^2(3, n = 66) = 24.26$ . It had a Nagelkerke  $R^2$  of 0.41 and correctly classified 75.8% of cases. The model for frequent readers of audiobooks (Model A<sub>4</sub>) was statistically significant,  $\chi^2(3, n = 42) = 7.87$ . It had a Nagelkerke  $R^2$  of 0.33 and correctly classified 92.9% of cases. The model for non-readers of audiobooks (Model A<sub>5</sub>) was statistically significant,  $\chi^2(3, n = 325) = 139.76$ . It had a Nagelkerke  $R^2$  of 0.49 and correctly classified 79.4% of cases. In Table 13, the B values and odds ratios for each independent variable in Model A<sub>3</sub>, A<sub>4</sub> and A<sub>5</sub> are presented.<sup>19</sup>

**Table 13:** Binary logistic regression analysis between independent variables and attitude towards audiobooks (dichotomous dependent variable) for infrequent (A<sub>3</sub>), frequent readers (A<sub>4</sub>), and non-readers (A<sub>5</sub>) of audiobooks

	Model A <sub>3</sub> Infrequent readers (n = 66)			Model A <sub>4</sub> Frequent readers (n = 42)			Model A <sub>5</sub> Non-readers (n = 325)		
	B	Wald	Odds ratio	B	Wald	Odds ratio	B	Wald	Odds ratio
Need for cognition	0.74	2.50	2.10	-1.73	2.16	0.18	0.18	0.40	1.19
Polychronicity	0.75*	4.50	2.12	-0.36	0.23	0.70	0.24	1.73	1.27
Need for companionship	2.97*	13.00	19.44	2.58	2.82	13.17	2.82*	70.54	16.77
Constant	-12.23*	11.60	0.00	3.51	0.37	33.46	-8.25*	28.66	0.00

\* p < 0.05

Model B was adjusted for respondents' reading frequency of audiobooks. The model for infrequent readers of audiobooks (Model B<sub>3</sub>) was statistically significant,  $\chi^2(2, n = 65) = 34.78$ . It had a Nagelkerke  $R^2$  of 0.57 and correctly classified 81.5% of cases. The model for frequent readers of audiobooks (Model B<sub>4</sub>) was statistically significant,  $\chi^2(2, n = 45) = 7.40$ . It had a Nagelkerke  $R^2$  of 0.39 and correctly classified 93.3% of cases. The model for non-readers of audiobooks (Model B<sub>5</sub>) was statistically significant,  $\chi^2(2, n = 327) = 132.64$ . It had a Nagelkerke  $R^2$  of 0.48 and correctly classified 81.0% of cases. In Table 14, the B values and odds ratios for each independent variable in Model B<sub>3</sub>, B<sub>4</sub> and B<sub>5</sub> are presented.<sup>20</sup>

<sup>18</sup> Defined as those who listen to audiobooks less than on a weekly basis, meaning frequent readers are those who listen on a weekly basis.

<sup>19</sup> All models passed the Hosmer and Lemeshow test, indicating a good fit (Pallant, 2013).

<sup>20</sup> All models passed the Hosmer and Lemeshow test, indicating a good fit (Pallant, 2013).

**Table 14:** Binary logistic regression analysis between independent variables and intention to use audiobooks (dichotomous dependent variable) for infrequent (B<sub>3</sub>), frequent readers (B<sub>4</sub>), and non-readers (B<sub>5</sub>) of audiobooks

	Model B <sub>3</sub> Infrequent readers (n = 65)			Model B <sub>4</sub> Frequent readers (n = 45)			Model B <sub>5</sub> Non-readers (n = 327)		
	B	Wald	Odds ratio	B	Wald	Odds ratio	B	Wald	Odds ratio
Attitude towards audiobooks	2.84*	12.46	17.14	3.74*	3.88	41.97	2.47*	58.10	11.87
Subjective norms for audiobooks	2.04*	6.04	7.66	0.61	0.52	1.85	0.79*	9.23	2.21
Constant	-14.71*	12.87	0.00	-11.59*	2.33	0.00	-11.05*	62.46	0.00

\* p < 0.05

#### 4.2.3. Segmentation based on gender

Model A was adjusted for respondents' gender<sup>21</sup>. The model for women (Model A<sub>6</sub>) was statistically significant,  $\chi^2(3, n = 372) = 182.16$ . It had a Nagelkerke  $R^2$  of 0.52 and correctly classified 79.0% of cases. The model for men (Model A<sub>7</sub>) was statistically significant,  $\chi^2(3, n = 57) = 23.06$ . It had a Nagelkerke  $R^2$  of 0.46 and correctly classified 80.7% of cases. In Table 15, the B values and odds ratios of each independent variable in Model A<sub>6</sub> and A<sub>7</sub> are presented.<sup>22</sup>

**Table 15:** Binary logistic regression analysis between independent variables and attitude towards audiobooks (dichotomous dependent variable) for women (A<sub>6</sub>) and men (A<sub>7</sub>)

	Model A <sub>6</sub> Women (n = 372)			Model A <sub>7</sub> Men (n = 57)		
	B	Wald	Odds ratio	B	Wald	Odds ratio
Need for cognition	0.06	0.07	1.06	0.85	1.72	2.34
Polychronicity	0.24	2.14	1.27	0.21	0.23	1.23
Need for companionship	2.91*	86.26	18.35	2.99*	12.11	19.87
Constant	-7.79*	35.87	0.00	-11.46*	7.57	0.00

\* p < 0.05

<sup>21</sup> Only differences between men and women were tested, as the number of non-binary respondents were too few for analysis (n = 4) (Hair Jr. et al., 2014).

<sup>22</sup> Both models passed the Hosmer and Lemeshow test, indicating a good fit (Pallant, 2013).



Model B was adjusted for respondents' gender. The model for women (Model B<sub>6</sub>) was statistically significant,  $\chi^2(2, n = 376) = 211.73$ . It had a Nagelkerke  $R^2$  of 0.58 and correctly classified 80.6% of cases. The model for men (Model B<sub>7</sub>) was statistically significant,  $\chi^2(2, n = 57) = 21.16$ . It had a Nagelkerke  $R^2$  of 0.42 and correctly classified 75.4% of cases. In Table 16, the B values and odds ratios for each independent variable in Model B<sub>6</sub> and B<sub>7</sub> are presented.<sup>23</sup>

**Table 16:** Binary logistic regression analysis between independent variables and intention to use (dichotomous dependent variable) for women (B<sub>6</sub>) and men (B<sub>7</sub>)

	Model B <sub>6</sub> Women (n = 372)			Model B <sub>7</sub> Men (n = 57)		
	B	Wald	Odds ratio	B	Wald	Odds ratio
Attitude toward audiobooks	2.79*	78.53	16.25	2.13*	10.99	8.37
Subjective norms for audiobooks	0.98*	17.86	2.67	1.01	2.91	2.75
Constant	-12.22*	83.24	0.00	-10.29*	10.85	0.00

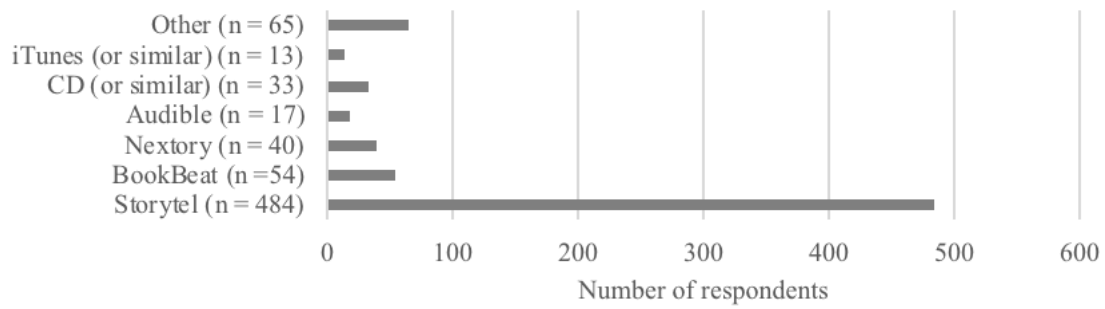
\*  $p < 0.05$

#### 4.3. Results for consumer behaviour related to digital subscription services for audiobooks

Figure 9 presents the channels used for audiobook consumption by audiobook-listening respondents (n = 605). In the study, 92% reported using the leading Swedish digital subscription services for audiobooks, Storytel, BookBeat and/or Nextory. Examples of "Other" include Biblio, Legimus, radio, and Spotify.

<sup>23</sup> Both models passed the Hosmer and Lemeshow test, indicating a good fit (Pallant, 2013).



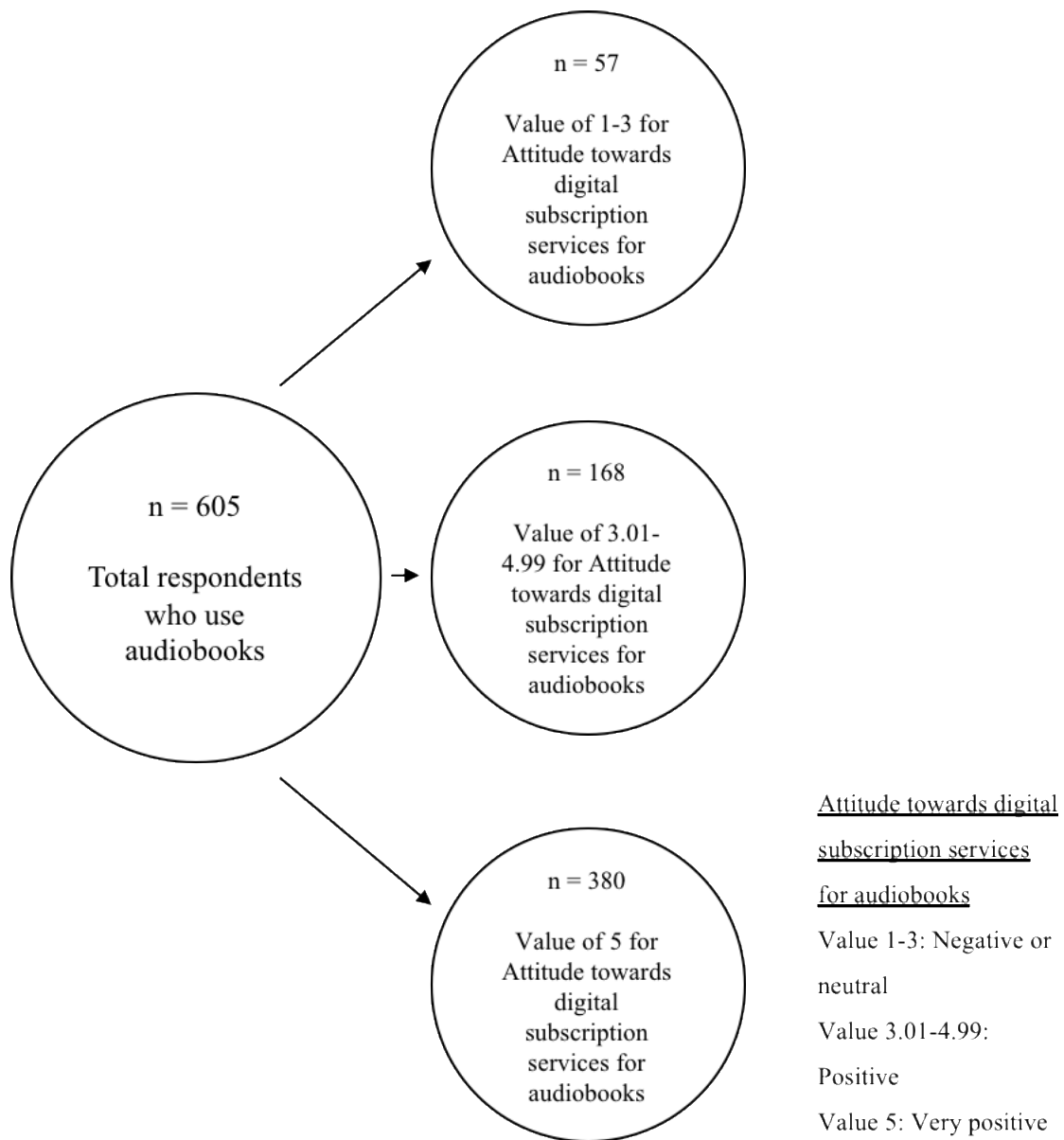


**Figure 9:** Bar chart presenting frequencies for respondents' audiobook channel consumption<sup>24</sup>

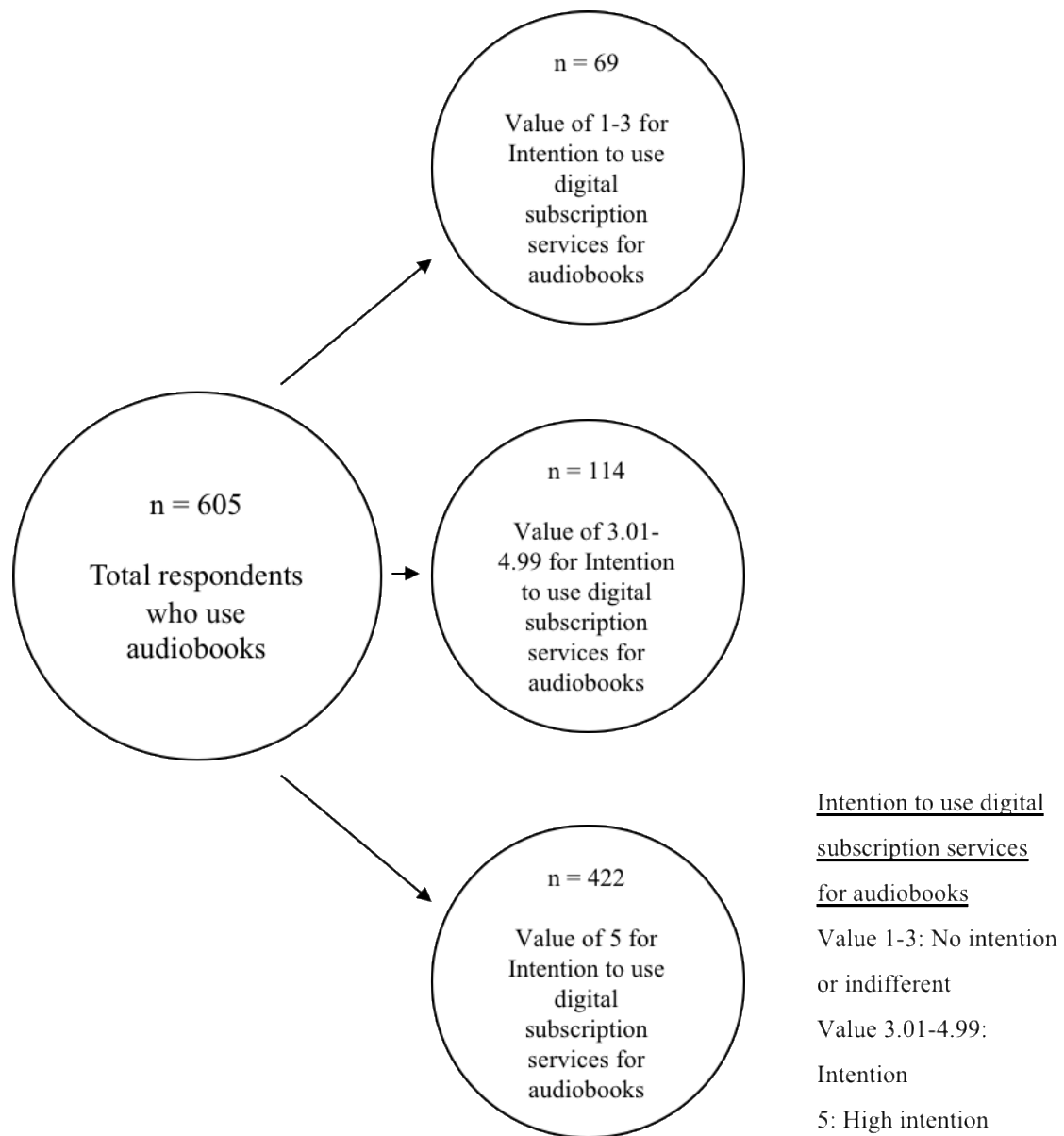
Descriptive statistics are used to study the attitude towards and intention to use digital subscription services for audiobooks. The information will initially be presented divided in six population sizes, presented in figures 10-11.

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<sup>24</sup> Respondents could report all alternatives that applied to them.



**Figure 10:** Division of responses after reported attitude towards digital subscription services for audiobooks



**Figure 11:** Division of responses after reported intention to use digital subscription services for audiobooks

Tables 17-18 present descriptive statistics for the six respondent groups presented in Figures 9-10. The descriptive statistics concern socio-demographic variables of interest for the research question.

**Table 17:** Descriptive statistics (percentages) for the six respondent groups used for study of digital subscription services for audiobooks

		Attitude towards digital subscription services for audiobooks (%)			Intention to use digital subscription services for audiobooks (%)		
		Negative or neutral (n = 57)	Positive (n = 168)	Very positive (n = 380)	No intention/ indifferent (n = 69)	Intention (n = 114)	High intention (n = 422)
Gender	Women	84.2%	88.1%	97.1%	85.5%	90.4%	95.5%
	Men	14%	11.9%	2.9%	14.5%	8.8%	4.5%
	Other	1.8%	0%	0%	0%	0.9%	0%
Education	High school degree	15.8%	18.5%	29.7%	17.4%	21.9%	27.5%
	Bachelor's degree	47.4%	41.1%	39.2%	44.9%	40.4%	39.8%
	Master's degree	26.3%	29.8%	15.5%	26.1%	28.1%	17.5%
	Other	10.6%	10.8%	15.6%	11.5%	9.7%	15.2%
Main occupation	Working	63.2%	63.1%	72.4%	59.4%	66.7%	71.1%
	Studying	19.3%	16.7%	5.5%	23.2%	14.0%	6.6%
	Other	17.6%	20.2%	22.1%	17.3%	19.3%	22.3%
Reading difficulty	Yes	5.3%	3.6%	2.9%	2.9%	1.8%	3.8%
	No	93.0%	95.8%	96.3%	95.7%	97.4%	95.5%
	Do not know/ want to say	1.8%	0.6%	0.8%	1.4%	0.9%	0.7%

**Table 18:** Descriptive statistics (means and standard deviations) for each variable of interest for study of digital subscription services for audiobooks (n = 605)

	Attitude towards digital subscription services for audiobooks (%)			Intention to use digital subscription services for audiobooks (%)		
	Negative or neutral (n = 57)	Positive (n = 168)	Very positive (n = 380)	No intention/ indifferent (n = 69)	Intention (n = 114)	High intention (n = 422)
Age [years]	46	43	49	44	44	49
Monotony of occupation*	1.72	1.73	1.58	1.71	1.75	1.59
Yearly income [SEK]	605 152	545 962	472 776	684 885	460 086	488 041
Average commute time [minutes]	15-29	15-29	15-29	15-29	15-29	15-29

\* Scale points: 5.

Table 19 presents descriptive statistics for variables of interest for study of digital subscription services for audiobooks. As the variables are all ordinal, means are used.

**Table 19:** Descriptive statistics (means and standard deviations) for each variable of interest for study of digital subscription services for audiobooks (n = 605)

	Mean	Standard deviation
Perceived usefulness**	5.64	1.49
Perceived ease of use**	6.25	0.90
Taxi meter effect**	5.53	1.23
Preference for trialability**	6.00	1.18
Perceived portability**	6.33	0.74
Need for time use efficiency**	5.24	0.96
Attitude towards digital subscription services for audiobooks*	4.53	0.81
Subjective norms of digital subscription services for audiobooks*	3.99	0.99
Intention to use digital subscription services for audiobooks*	4.51	0.90

\* Scale points: 5.

\*\* Scale points: 7.

Spearman's rank-order correlation test was performed to determine the correlation between attitude towards digital subscription services for audiobooks and related variables of interest, as well as for intention to use digital subscription services for audiobooks and related variables of interest, shown in table 20-21. The respondents used were all audiobook listeners with negative/neutral and positive attitudes towards (n = 225), and no intention/indifferent and intention to use (n = 183) digital subscription services for audiobooks respectively.

**Table 20:** Spearman's rank-order correlation test for variables of interests' correlations with attitude towards digital subscription services for audiobooks

	Attitude towards digital subscription services for audiobooks (n = 225)	
	$\rho$	Correlation strength***
Perceived usefulness	0.65**	Large
Perceived ease of use	0.28**	Small
Taxi meter effect	0.31**	Medium
Preference for trialability	0.51**	Large
Perceived portability	0.32**	Medium
Need for time use efficiency	-0.491	Medium

\* Correlation is significant at the 0.05 level (two-tailed).

\*\* Correlation is significant at the 0.01 level (two-tailed).

\*\*\* Small ( $\rho = 0.10$  to  $0.29$ ), Medium ( $\rho = 0.30$  to  $0.49$ ), and Large ( $\rho = 0.50$  to  $1.0$ ) classifications according to Pallant (2013).

**Table 21:** Spearman's rank-order correlation test for variables of interests' correlations with intention to use audiobooks

Intention to use digital subscription services for audiobooks (n = 183)		
	$\rho$	Correlation strength***
Attitude towards digital subscription services for audiobooks	0.61**	Large
Subjective norms of digital subscription services for audiobooks	0.34**	Medium

\* Correlation is significant at the 0.05 level (two-tailed).

\*\* Correlation is significant at the 0.01 level (two-tailed).

\*\*\* Small ( $\rho = 0.10$  to  $0.29$ ), Medium ( $\rho = 0.30$  to  $0.49$ ), and Large ( $\rho = 0.50$  to  $1.0$ ) classifications according to Pallant (2013).

#### 4.4. Segmentation analysis of consumer behaviour related to digital subscription services for audiobooks

Segmentation analyses were performed to study the attitudes and intentions of particularly interesting groups<sup>25</sup>. Segmentation was based on usage, a common segmentation base in marketing (Weinstein, 2001), and gender and age, two common segmentation bases and socio-demographic factors of interest for technology and digital audiobooks (Bergström et al., 2017; Höglund & Wahlström, 2018; Rogers, 2003).

##### 4.4.1. Segmentation based on gender

Table 22-23 present cross tabulation tables used as a basis for the conducted Cramer's V tests, which were used to investigate the relationship between gender and attitude towards and intention to use digital subscription services for audiobooks for respondents who were all audiobook listeners with negative/neutral and positive attitudes towards (n = 223), and no intention/indifferent and intention to use digital subscription services for audiobooks (n = 181) respectively. The tests did not fulfil the assumption that at least 80% of the cells need to have an expected frequency of five or more (Gravetter and Wallnau, 2013). However, the respective tests had five or more in 66.7% of the cells,

<sup>25</sup> Additional segmentation analyses as well as analyses of potential control variables were performed, but only those considered most crucial to the thesis were included based on word restraints and scope.

which is considered adequate by the authors for the tests to be included in this thesis. The test showed results of a medium effect,  $V(n = 225) = 0.12$ ,  $p < 0.20$ , and small effect,  $V(n = 183) = 0.11$ ,  $p < 0.37$ , respectively (Gravetter and Wallnau, 2013).

**Table 22:** Cross tabulation table of gender and attitude towards digital subscription services

		Gender			
		Woman	Man	Other	Total
Negative or neutral	Count	48	8	1	57
	% within attitude towards digital subscription services	84.2%	14.0%	1.8%	100%
	% within gender	24.5%	28.6%	100%	25.3%
	% of total	21.3%	3.6%	0.4%	25.3%
Positive	Count	148	20	0	168
	% within attitude towards digital subscription services	88.1%	11.9%	0%	100%
	% within gender	75.5%	71.4%	0%	74.7%
	% of total	65.8%	8.9%	0%	74.4%
Total	Count	196	28	1	225
	% within attitude towards digital subscription services	87.1%	12.4%	0.4%	100%
	% within gender	100%	100%	100%	100%
	% of total	87.1%	12.4%	0.4%	100%



**Table 23:** Cross tabulation table of gender and intention to use digital subscription services

		Gender			
		Woman	Man	Other	Total
No intention/ indifferent	Count	59	10	0	69
	% within intention to use digital subscription services	85.5%	14.5%	0%	100%
	% within gender	36.4%	50.0%	0%	37.7%
	% of total	32.2%	5.5%	0%	37.7%
Intention	Count	103	10	1	114
	% within intention to use digital subscription services	90.4%	8.8%	0.9%	100%
	% within gender	63.6%	50.0%	100%	62.3%
	% of total	56.3%	5.5%	0.5%	62.3%
Total	Count	162	20	1	183
	% within intention to use digital subscription services	88.5%	10.9%	0.5%	100%
	% within gender	100%	100%	100%	100%
	% of total	88.5%	10.9%	0.5%	100%

#### 4.4.2. Segmentation based on age

Table 24-25 present cross tabulation tables used as a basis for the conducted Cramer's V tests, which were used to investigate the relationship between age and attitude towards and intention to use digital subscription services for audiobooks for respondents who were all audiobook listeners with negative/neutral and positive attitude ( $n = 223$ ) and no intention/indifferent and intention to use digital subscription services for audiobooks ( $n = 181$ ) respectively<sup>26</sup>. The tests did not fulfil the assumption that at least 80% of the cells need to have an expected frequency of five or more (Gravetter and Wallnau, 2013). However, the tests had five or more in 68.7% and 78.6% of the cells respectively, which is considered adequate by the authors for the tests to be included in this thesis. The test showed results of a medium effect,  $V(n = 223) = 0.20$ ,  $p < 0.27$ , and a medium effect,  $V(n = 181) = 0.14$ ,  $p < 0.72$ , respectively (Gravetter and Wallnau, 2013).

<sup>26</sup> Two missing values.

**Table 24:** Cross tabulation table of age and attitude towards digital subscription services

		Age groups								Total
		10-17	18-25	26-35	36-45	46-55	56-65	66-75	76-85	
Negative or neutral	Count	0	7	10	9	15	10	3	3	57
	% within attitude towards digital subscription services	0.0%	12.3%	17.5%	15.8%	26.3%	17.5%	5.3%	5.3%	100%
	% within age group	0.0%	25.0%	25.6%	17.0%	26.3%	34.5%	25.0%	75.0%	25.6%
	% of total	0.0%	3.1%	4.5%	4.0%	6.7%	4.5%	1.3%	1.3%	25.6%
Positive	Count	1	21	29	44	42	19	9	1	166
	% within attitude towards digital subscription services	0.6%	12.7%	17.5%	26.5%	25.3%	11.4%	5.4%	0.6%	100%
	% within age group	100%	75.0%	74.4%	83.0%	73.7%	65.5%	75.0%	25.0%	74.4%
	% of total	0.4%	9.4%	13.0%	19.7%	18.8%	8.5%	4.0%	0.4%	74.4%
Total	Count	1	28	39	53	57	29	12	4	223
	% within attitude towards digital subscription services	0.4%	12.6%	17.5%	23.8%	25.6%	13.0%	5.4%	1.8%	100%
	% within age group	100%	100%	100%	100%	100%	100%	100%	100%	100%
	% of total	0.4%	12.6%	17.5%	23.8%	25.6%	13.0%	5.4%	1.8%	100%

**Table 25:** Cross tabulation table of age and intention to use digital subscription services

		Age groups								
		10-17	18-25	26-35	36-45	46-55	56-65	66-75	76-85	Total
No intention/ indifferent	Count	-	11	13	11	17	11	3	3	69
	% within attitude towards digital subscription services	-	15.9%	18.8%	15.9%	24.6%	15.9%	4.3%	4.3%	100%
	% within age group	-	44.0%	39.4%	30.6%	37.8%	37.9%	33.3%	75.0%	38.1%
	% of total	-	6.1%	7.2%	6.1%	9.4%	6.1%	1.7%	1.7%	38.1%
Intention	Count	-	14	20	25	28	18	6	1	112
	% within attitude towards digital subscription services	-	12.5%	17.9%	22.3%	25.0%	16.1%	5.4%	0.9%	100%
	% within age group	-	56.0%	60.6%	69.4%	62.2%	62.1%	66.7%	25.0%	61.9%
	% of total	-	7.7%	11.0%	13.8%	15.5%	9.9%	3.3%	0.6%	61.9%
Total	Count	-	25	33	36	45	29	9	4	181
	% within attitude towards digital subscription services	-	13.8%	18.2%	19.9%	24.9%	16.0%	5.0%	2.2%	100%
	% within age group	-	100%	100%	100%	100%	100%	100%	100%	100%
	% of total	-	13.8%	18.2%	19.9%	24.9%	16.0%	5.0%	2.2%	100%

#### 4.4.3. Segmentation based on frequency of use of digital subscription services for audiobooks

Table 26 presents an augmented cross tabulation table used to examine the frequency relationship between attitude towards and intention to use digital subscription services for audiobooks, and reported user behaviour. Studied respondents were those using one or more of the three leading Swedish digital subscription services for audiobooks, Storytel, BookBeat and Nextory (n = 540). Additionally, a Spearman's rank-order correlation test was run for the same variables, displayed in the same table.

**Table 26:** Frequencies and correlations of attitude towards and intention to use digital subscription services in relation to reported frequency of use of digital subscription services

		Every day	A few times a week	Once a week	A couple times a month	Less than once a month	Total	$\rho$	Correlation strength ****
Attitude towards digital subscription services for audiobooks	Negative or neutral	4	3	0	1	17	25	0.05	< Small
	Positive	65	43	6	9	23	146	0.31**	Medium
	Very positive	296	51	3	10	9	369	-.***	-.***
	Total	365	97	9	20	49	540		
Intention to use digital subscription services for audiobooks	No intention/ indifferent	3	4	0	0	20	27	0.133	Small
	Intention	41	28	2	11	17	99	0.240*	Small
	High intention	321	65	7	9	12	414	-.***	
	Total	365	97	9	20	49	540		

\* Correlation is significant at the 0.05 level (two-tailed).

\*\* Correlation is significant at the 0.01 level (two-tailed).

\*\*\* Statistically not possible to measure for this respondent group.

\*\*\*\* Small ( $\rho = 0.10$  to  $0.29$ ), Medium ( $\rho = 0.30$  to  $0.49$ ), and Large ( $\rho = 0.50$  to  $1.0$ ) classifications according to Pallant (2013).

## 4.5. Summary of hypotheses

In Tables 27-28, a summary of the hypotheses outlined in section 2 are presented, along with the study's empirical findings. Both those for audiobooks and digital subscription services for audiobooks and presented.

**Table 27:** Summary of hypotheses and results for audiobooks

H1a	Attitude towards audiobooks has a positive effect on the intention to use audiobooks	Supported
H1b	Subjective norms have a positive effect on the intention to use audiobooks	Supported
H4a	Need for cognition has a negative effect on attitude towards audiobooks	Partially supported*
H4b	Preference for auditory experiences has a positive effect on the attitude towards audiobooks	Not tested
H4c	Polychronicity has a positive effect on the attitude towards audiobooks	Partially supported*
H4d	Need for companionship has a positive effect on the attitude towards audiobooks	Supported

\* Partially supported refers to a variable having the hypothesised positive or negative effect, its correlation being significant but small in a correlation analysis with attitude towards audiobooks, and not significant in the regression analysis.

**Table 28:** Summary of hypotheses and results for digital subscription services for audiobooks

H2a	Attitude towards digital subscription services for audiobooks has a positive correlation with the intention to use digital subscription services for audiobooks	Supported
H2b	Subjective norms for digital subscription services for audiobooks have a positive correlation with the intention to use digital subscription services for audiobooks	Supported
H3a	Perceived usefulness has a positive correlation with the attitude towards digital subscription services for audiobooks.	Supported
H3b	Perceived ease of use has a positive correlation with the attitude towards digital subscription services for audiobooks.	Partially supported*
H3c	Perceived portability has a positive correlation with the attitude towards digital subscription services for audiobooks.	Supported
H3d	The taxi meter effect has a positive correlation with the attitude towards digital subscription services for audiobooks.	Supported
H3e	Need for time use efficiency has a positive correlation with the attitude towards digital subscription services for audiobooks.	Not supported
H3f	Preference for trialability has a positive correlation with the attitude towards digital subscription services for audiobooks.	Supported

\* Partially supported refers to a variable having the hypothesised positive or negative effect, and its correlation being significant small in a correlation analysis with attitude towards audiobooks digital subscription services for audiobooks.

## 5. Discussion and conclusions

The purpose of this thesis is to examine consumer behaviour relating to audiobooks and digital subscription services for audiobooks. In this section, the study's results are discussed in comparison to previous research and literature. First, the analysis of consumer behaviour related to audiobooks is presented, then that of digital subscription services for audiobooks.

### 5.1. Discussion

#### 4.1 Results for consumer behaviour related to audiobooks

The respondent groups for results related to audiobooks were socio-demographically similar. The majority were women, had an average age between 45 and 49 years, an average monthly salary between approximately 39 000 and 42 000 SEK, and a completed university education. Their average commuting distances were all 15 to 29 minutes long, they perceived their main occupations to not be monotonous, and less than 1% of respondents in each group reported having reading difficulties. Moreover, most respondents used a combination of printed books, audiobooks, and e-books, supporting the idea that audiobooks complement rather than substitute other book mediums (Have & Stougaard Pedersen, 2016). The largest difference between respondent groups can be found in their main occupations, as those reporting very positive attitudes or high intentions ( $n = 511$ ) had 69.9% working respondents, while remaining respondents ( $n = 447$ ) had 53.5%. The regression analysis is thus unlikely to be affected by large differences in socio-demographic factors from excluding respondents with very positive attitudes and high intentions. See section 5.3.2. for critique on how sample bias affects analysis of the respondent groups.

When examining the regression analysis for attitude towards audiobooks ( $n = 447$ ), only need for companionship shows empirical support for being a significant variable. The odds of a respondent having a positive attitude was 18.275 times higher for someone who reported that they felt comforted by audiobooks than someone who did not, all other factors being equal. This is consistent with past research suggesting that being read to can generate a feeling of safety, comfort and companionship (Horton & Wohl, 1997 referred to in Rubery 2011; Schultz, 2004 referred to in Rubery 2011), logically resulting in positive attitudes.

The variables need for cognition and polychronicity have no empirical support for statistical significance in the regression analysis, but are significant in the Spearman rank-order correlation test. Need for cognition's small, negative correlation with attitude towards audiobooks aligns with past literature suggesting that listening to audiobooks requires less concentration than reading printed books (Have & Stougaard Pedersen,

2012; Have & Stougaard Pedersen, 2016; Rubery, 2011). Polychronicity has a small, positive correlation with attitude towards audiobooks, which is also aligned with past literature (e.g. APA, 2018; Kalenkoski & Foster, 2016). Varao-Sousa et al.'s (2018) hypothesis that the nature of audiobooks welcomes multitasking may explain why audiobooks seemingly attract polychronic consumers.

For the regression analysis of intention to use audiobooks, attitude towards audiobooks and subjective norms both have statistically significant positive contributions, which is congruent with Fishbein and Ajzen's (1975) Theory of Reasoned Action. Notably, attitude towards audiobooks has a larger contribution than subjective norms. This is consistent with Williams et al.'s (2014) study using the Technology Acceptance Model, in which subjective norms had a lesser impact on intention to use e-readers than the attitudinal variables perceived usefulness and perceived ease of use. This potentially suggests that consumer behaviour across several digital reading mediums could be comparable.

Notably, the Nagelkerke  $R^2$  of models A and B are 0.51 and 0.56. These are considered to indicate relatively high explanatory power by the authors, but certainly leaves room for improvement, for example by adding additional explanatory factors.

#### **4.2 Segmented analysis for consumer behaviour related to audiobooks**

When segmenting based on reading frequency of printed books, the odds of a respondent having a positive attitude towards audiobooks based on their reported need for companionship is higher for frequent users than infrequent users. Moreover, when studying intention, both attitude towards audiobooks and subjective norms have larger coefficients for frequent readers than infrequent readers of printed books. These results could be due to the fact that many audiobook listeners in this study also read printed books, in line with the view of the two as complements rather than substitutes (Have & Stougaard Pedersen, 2016). It does not completely contradict, but it does question the idea that reading more printed books results in less support for audiobooks and e-books (Bergström et al., 2017).

When segmenting based on reading frequency of audiobooks, no attitudinal variables are statistically significant for frequent readers. This raises the question whether the results are due to shortfalls of the study, or whether there are other attitudinal factors that explain these respondents' heavy use of audiobooks. Moreover, polychronicity is a significant positive variable contributing to attitude towards audiobooks for infrequent readers of audiobooks. This attitudinal factor could be emphasised by companies who wish to increase the consumption of infrequent readers specifically. Need for companionship contributes positively to attitude towards audiobooks for infrequent readers and non-readers of audiobooks. The variable being positively correlated for non-readers of audiobooks may suggest that deriving comfort from listening to someone is not exclusive to audiobook listeners. The authors hypothesise that these respondents



may use verbal entertainment substitutes like music or podcasts to generate the same feelings of companionship. When studying intention, attitude towards audiobooks is a significant positive contributor to behavioural intention for all groups, in line with the Theory of Reasoned Action (Fishbein & Ajzen, 1975). However, subjective norms are only significant for infrequent and non-users. Thus, if companies wish to upsell infrequent users or convert non-users into users, marketing aiming to shape subjective norms could be used to target these groups specifically.

When segmenting based on gender, need for companionship was the only significant variable contributing to attitude, with similar coefficient sizes. Thus, if companies include this factor in their messaging, it would be expected to influence the attitudes of these two genders equally amongst the study's respondents. When examining their intention to use audiobooks, attitude significantly correlates positively for both genders, but subjective norms are only significant for women. Thus, if companies wish to target both genders, attitudinal marketing is preferable, whereas marketing shaping subjective norms could be used to target women specifically.

#### **4.3 Results for consumer behaviour related to digital subscription services for audiobooks**

Approximately 63% of audiobook-consuming respondents use digital subscription services for audiobooks. This is aligned with today's market, in which these services are the dominant channel (Wikberg, 2019). See section 5.3.2. for critique on how sample bias affects analysis of the respondent groups.

The respondent groups for results related to digital subscription services for audiobooks were somewhat socio-demographically similar. The majority were women and had an average age between 43 and 49 years. Their average commuting distances were all 15 to 29 minutes and they perceived their main occupations to not be monotonous. According to the study, gender and age distribution are similar between readers of other book mediums and audiobook listeners. This diverges from past research stating that the gender distribution is more equal between men and women in audiobook consumption than printed book consumption (Edison Research, 2016), and that younger people adopt new technologies easier than older people (e.g. Rogers, 2003). See section 5.3.2. for critique on how the sample bias affects analysis of respondent groups.

The largest differences in socio-demographic factors between respondent groups for results related to digital subscription services for audiobooks are their incomes, education, main occupations, and number of respondents reading difficulties. Generally, the more positive one's attitude and intention to use digital subscription services for audiobooks, the lower income and education levels one has reported. This contradicts previous research that those with higher incomes and education levels are more likely to be early adopters of new technology (Bergström et al., 2017; Höglund & Wahlström, 2018; Rogers, 2003). In the case of digital subscription services, this may be due to the

services themselves having a relatively low fee of 139-169 SEK/month, 90% of Swedes owning smartphones (Davidsson et al., 2018), and the technology being similar to other digital subscription services, easing adoption for all. These results may thus be more accurate for this particular type of technology and specific geographical market, as Swedes are generally active readers and technology users. Regarding reading difficulty, those who have reported having one are part of the groups with the lowest attitudes and highest intentions to use digital subscription services for audiobooks. Although the respondents are too few to draw generalisable conclusions from, one hypothesis is that this group feels more impelled to use digital subscription services for audiobooks due to their reading difficulties, even if they do not like them.

Perceived usefulness, perceived ease of use, the taxi meter effect, preference for trialability, and perceived portability all had significant positive correlations with attitude towards digital subscription services for audiobooks, as hypothesised based on past research and literature (e.g. Bergström et al., 2017; Davis, 1985; Have & Stougaard Pedersen, 2016; Lambrecht & Skiera, 2006; Rogers, 2003). Need for time use efficiency had a negative correlation, contradicting past literature (APA, 2019; Kozlowski, 2018), but insignificantly so. Perceived usefulness and preference for trialability had the strongest correlations in the study, presumably making them effective benefits for digital subscription services for audiobooks to communicate in their marketing. The former challenges Hsu and Lu's (2004) findings that perceived usefulness may not have a large effect on attitude concerning entertainment technology. Furthermore, attitude and subjective norms had significant positive correlations with intention to use digital subscription services for audiobooks, aligned with the Theory of Reasoned Action (Fishbein & Ajzen, 1975). Attitude had the strongest correlation, suggesting that companies should prioritise investment in attitudinal marketing to increase potential consumers' intention to use their services.

#### **4.4 Segmentation analysis of consumer behaviour related to digital subscription services for audiobooks**

When studying gender differences in attitude towards and intention to use digital subscription services for audiobooks, these do not differ much amongst respondents, implying that they may be equally attracted to these services before other audiobook formats. When studying age differences, respondents between 36 and 45 years old represent the relatively highest number of respondents who are positive towards and have an intention to use these services. This is aligned with Höglund and Wahlström's (2018) findings that young and middle-aged readers prefer digital audiobooks, and seemingly contradicts Edison Research's (2016) findings that no particular age groups listen significantly more or less to audiobooks. This may highlight a geographical difference between consumers in Sweden and the USA, as Edison Research's study used American respondents.

When examining the attitudes, intentions and reported behaviours of digital subscription service customers in Table 26, respondents with more positive attitudes towards and intentions to use the services were also the ones using them the most. This is consistent with the Theory of Reasoned Action (Fishbein & Ajzen, 1975). Notably, over 65% of this study's respondents listen to audiobooks daily on average, indicating that members of online forums for books and audiobooks are heavy users of digital subscription services for audiobooks.

## 5.2. Conclusions and implications

The results of this thesis and its contribution to filling the existing research gap can be expressed as an initial analysis of Swedish readers, and their attitudes and intentions to use audiobooks and digital subscription services for audiobooks. The thesis suggests factors that are of differing importance to attitudes and intentions, as well as differences and similarities between various consumer segments.

The key results of this study can be summarised as follows:

*Swedish consumers particularly perceive need for companionship, and perceived usefulness and preference for trialability as important factors for attitudes towards audiobooks and digital subscription services for audiobooks respectively. Moreover, attitude generally matters more than subjective norms for behavioural intention. However, there are more factors to be found to further explain both attitude towards and intention to use audiobooks and digital subscription services for audiobooks.*

Additional conclusions and implications include:

- Many readers use a combination of printed books, audiobooks and e-books, highlighting the importance of each medium for today's consumers.
- Digital subscription services are seemingly substituting other audiobook formats, whilst audiobooks remain complementary to other book mediums.
- Online book forums are an excellent way to target readers who already have a positive attitude towards and intention to use audiobooks and digital subscription services for audiobooks.
- Need for companionship, perceived usefulness, and preference for trialability are attitudinal factors that companies can utilise in their messaging when targeting customers and to market their positioning.
- Attitude is more important for shaping behavioural intention than subjective norms for audiobooks and digital subscription services for audiobooks. Companies could benefit from using more marketing with attitudinal messaging than marketing aiming to shape related norms. However, when targeting infrequent users and non-users of

audiobooks, or women specifically, companies could benefit from using marketing influencing subjective norms as well.

Due to the study's characteristics, one could assume that the conclusions could be generalised to other forms of digital entertainment and digital subscription services, as well as other Western countries with similar reading behaviours, such as the USA. Hopefully, this study will be practically useful for the industry, and encourage further research of audiobooks and digital subscription services in Sweden and beyond. With the considerable growth in this particular industry in Sweden, as well as general digital subscription services globally, this thesis lays a foundation for improving the understanding of audiobook listeners and digital subscription service consumers.

### 5.3. Limitations and criticism of the study

In this section, notable limitations and critiques of the study are presented. They are divided into theoretical and methodical ones.

#### 5.3.1. Theoretical limitations and critiques

Due to the limited amount of studies about audiobooks and digital subscription services for audiobooks, certain theoretical limitations are incurred. Additionally, due to rapid technological developments, much research prior to the popularisation of digital subscription services for audiobooks is outdated for this particular study.

#### 5.3.2. Methodical limitations and critiques

A sample bias likely occurred in the data collection, resulting in little data variation (see Appendix 8). This could possibly have been avoided with a less biased target group (Pallant, 2013), and by using instruments with more scale points (Söderlund, 2005). Relatedly, the collected data resulted in authors not being able to perform a linear regression analysis as originally intended, and binary logistic regression analyses were performed instead. Disadvantages of the latter in this case includes having to dichotomise the dependent variables, and a majority of respondents being excluded from the analyses to satisfy related assumptions.

Whilst social media and email is an efficient way to gather a lot of data, there is a risk that the questionnaire respondents are more technology accepting than the average Swedish book reader, because they are confirmed users of the internet. The distribution method may therefore limit the ability to generalise the variables connected to the Technology Acceptance Model specifically. Additionally, the exact differences between segmented respondent groups should not be used as definitive for the Swedish market, as consumers using non-digital formats might be underrepresented. However, the socio-

demographic results are still deemed useful in understanding people who engage in book forums online.

Another point of critique is that the questionnaire was distributed via Facebook groups, where people were able to comment publicly about the questionnaire in comment sections. This may have led to respondents reading others' opinions before answering the questionnaire themselves, which may have contributed to hypothesis guessing<sup>27</sup> (Söderlund, 2018).

Furthermore, the respondents self-reported<sup>28</sup> their behaviour, affecting validity as respondents may not have reported their actual behaviour (Bryman & Bell, 2011). This is a risk related with any questionnaire study, and it was still assessed as the superior method for answering the research question.

#### 5.4. Suggestions for future research

Considering the method resulting in a likely sampling bias, replication studies using more representative samples would be interesting for even more generalisable results. Moreover, replication studies in geographical markets where these services are less established would be interesting for comparison. Finally, considering that no attitudinal factors were statistically significant in the segmented analysis for frequent audiobook users, the authors suggest further research be done to understand what beliefs explain their attitudes. Ideally, this would include sensorial preference, as it is deemed interesting in past literature and from the performed pre-study, but could not be reliably tested in this study.

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<sup>27</sup> To be expected when using social media for distribution.

<sup>28</sup> Requiring the respondent to interpret the questions in the intended way, encoding behaviour and attitude from memory, recalling previous judgement and forecasting future intentions (Garcia & Gustavson, 1997; Fielding, 2011).

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## 7. Appendix

### Appendix 1: Secondary competition

**Table 29:** Information on secondary competitors of digital subscription service companies for audiobooks in Sweden

Biblio	A free digital service for audiobooks and e-books for library borrowers of Biblio's affiliated libraries, owned by Axiell Media ( <i>Biblio – bibliotekets digitala böcker på ett ställe</i> , n.d.).
Legimus	The free digital service of the Swedish Agency for Accessible Media, who offer reading content for people with reading impairments in accessible formats (Swedish Agency for Accessible Media, n.d). It is offered exclusively to those with reading impairments in Sweden via their libraries.
Audiobooks.com	An American digital service for audiobooks and e-books, owned by RBmedia, one of the largest publishers of audiobooks in the world ( <i>Audiobooks.com</i> , 2019).
Audible	Global online retailer Amazon's digital subscription service for audiobooks and e-books, and the world's largest publishers of audiobooks ( <i>About Audible</i> , n.d.).
Librivox	A non-commercial, non-profit and ad-free digital service for audiobooks ( <i>About Librivox</i> , n.d.). Volunteers all over the world record audiobooks, which are accessed via their website or mobile application for free.

## Appendix 2: Prestudy participants

**Table 30:** Details on prestudy participants

No.	Type of prestudy	Participant
1.	Semi-structured interview	Pontus Sandberg. Owner of Allaljudbocker.se
2.	Semi-structured	Chamberlain, Anna. Digital licensing of academic content and audio licensing at Oxford University Press. Lipparini, Giulia. Audio administration in operations team at Oxford University Press. Eyre, Louise. Licensing operations coordinator at Oxford University Press.
3.	Focus group	Woman, 19 years old. Consumer of digital subscription services for audiobooks. Woman, 22 years old. Consumer of digital subscription Services for audiobooks. Woman, 23 years old. Consumer of digital subscription services for audiobooks.
4.	Informal contact	Anonymous Storytel employee.

### Appendix 3: Questionnaire for main study

**Table 31:** Overview of questions and statements included in the questionnaire of the main study

Number	Question and statements
Text	<p>Den svenska bokläsaren i dagens digitala värld</p> <p>- Var med och utveckla bokbranschen i rätt riktning!</p> <p>Svarar du på enkäten bidrar du till att rusta upp skolbibliotek för barn i utsatta länder - för varje respondent skänker vi 1 SEK till Barnfondens välgörande ändamål där dem renoverar, målar om, köper in fler böcker och utbildar bibliotekspersonal på skolbibliotek.</p> <p>Hur kommer det sig att vissa personer föredrar ljudböcker framför tryckta böcker eller vice versa? Hur förändras branschen i förhållande till samhällets ständiga teknologiska utveckling - och hur uppfattar bokläsaren detta? Det är frågor som undersöks i en kandidatuppsats vid Handelshögskolan i Stockholm. Syftet är att få kunskap om uppfattningar och vanor hos de som läser eller lyssnar på böcker på fritiden och om allmänna konsumentbeteenden. Formuläret tar ungefär 10 minuter att svara på. Alla svar är anonyma.</p> <p>Fundera inte allt för länge över frågorna. Om någon tycks svår att besvara, försök ändå. Vissa frågor kan vara mycket lika varandra, de finns med av undersökningstekniska skäl. Besvara frågorna utan att försöka minnas tidigare svar.</p> <p>Tack för du bidrar till bokbranschens framtid!</p> <p>Bästa hälsningar,  Alice O'Connor (23671@student.hhs.se) och Hedda Hanner (23600@student.hhs.se)</p>
Text	Vänligen observera att frågorna gäller läsning av böcker under din fritid. Du behöver därmed inte inkludera exempelvis kurslitteratur, sådant du läser på jobbet, tidningar, instruktionsböcker eller liknande.
Q1	<p>Har du använt något av följande format för läsning på fritiden de senaste 12 månaderna?</p> <p>Du kan välja alla alternativ som passar in på dig.</p> <ul style="list-style-type: none"> <li>- Tryckt bok</li> <li>- Ljudbok</li> <li>- E-bok</li> <li>- Annat</li> <li>- Jag läser eller lyssnar inte på böcker alls på fritiden</li> </ul>
Q2	<p>Ungefär hur ofta läser du tryckta böcker?</p> <ul style="list-style-type: none"> <li>- Varje dag</li> <li>- Några gånger i veckan</li> <li>- En gång i veckan</li> <li>- Ett par gånger i månaden</li> <li>- Mindre än en gång i månaden</li> </ul>
Q3	<p>Ungefär hur ofta lyssnar du på ljudböcker?</p> <ul style="list-style-type: none"> <li>- Varje dag</li> <li>- Några gånger i veckan</li> <li>- En gång i veckan</li> </ul>

- Q4      - Ett par gånger i månaden  
          - Mindre än en gång i månaden  
 Ungefär hur ofta läser du e-böcker?  
          - Varje dag  
          - Några gånger i veckan  
          - En gång i veckan  
          - Ett par gånger i månaden  
          - Mindre än en gång i månaden
- Q5      Vilken produkt använder du för att lyssna på ljudböcker? Du kan välja alla alternativ som  
 passar in på dig.  
          - CD eller kassett  
          - iTunes eller liknande  
          - Nextory  
          - Storytel  
          - BookBeat  
          - Audible  
          - Annat
- Q6      Vad är din attityd gentemot att själv lyssna på ljudböcker? Om du inte redan lyssnar på  
 ljudböcker, föreställ dig att du skulle göra det.  
          - Mycket negativ – Mycket positiv  
          - Mycket otillfredsställande – Mycket tillfredsställande  
          - Ogillar mycket – Gillar mycket  
          - Mycket värdelöst – Mycket värdefullt  
          - Mycket oanvändbart – Mycket användbart
- Q7      Vänligen ange hur väl följande påståenden passar in på dig.  
          - Jag avser att använda ljudböcker i framtiden.  
          - Jag tror att jag kommer att använda ljudböcker i framtiden.  
          - Sannolikheten att jag kommer att använda ljudböcker i framtiden är hög.
- Q8      Majoriteten av mina vänner, familj och bekanta tycker att jag...  
          - ... inte borde använda ljudböcker. – ... borde använda ljudböcker.
- Q9      Vad är din attityd gentemot att själv lyssna på ljudböcker genom en digital  
 abonnemangstjänst, till exempel Storytel, BookBeat eller Nextory? Om du inte redan  
 lyssnar på ljudböcker genom en digital abonnemangstjänst, föreställ dig att du skulle göra  
 det.  
          - Mycket negativ – Mycket positiv  
          - Mycket otillfredsställande – Mycket tillfredsställande  
          - Ogillar mycket – Gillar mycket  
          - Mycket värdelöst – Mycket värdefullt  
          - Mycket oanvändbart – Mycket användbart
- Q10     Vänligen ange hur väl följande påståenden passar in på dig.  
          - Jag avser att använda digitala abonnemangstjänster för ljudböcker i framtiden.  
          - Jag tror att jag kommer att använda digitala abonnemangstjänster för ljudböcker i  
          framtiden.  
          - Sannolikheten att jag kommer att använda digitala abonnemangstjänster för  
          ljudböcker i framtiden är hög.
- Q11     Majoriteten av mina vänner, familj och bekanta tycker att jag...  
          - ... inte borde använda digitala abonnemangstjänster för ljudböcker. – ... borde  
          använda digitala abonnemangstjänster för ljudböcker.
- Text     Föreställ dig följande påstående i en normal vardagssituation och svara så gott du kan.
- Q12     Vänligen ange hur väl följande påståenden passar in på dig.  
          - Jag tycker inte om att behöva tänka mycket.

- Jag försöker undvika situationer som kräver djup tankeverksamhet.
  - Jag föredrar att göra något som utmanar min tankeförmåga snarare än något som kräver lite tankeverksamhet.
  - Jag föredrar komplicerade problem framför enkla.
  - Att tänka mycket och länge på något ger mig ingen tillfredsställelse.
- Q13 Vänligen ange hur väl följande påståenden passar in på dig.
- Jag tycker om att lära mig nya ord.
  - När jag ska lära mig något nytt så föredrar jag att få det presenterat för mig framför att läsa om det.
  - Mina tankar består ofta av mentala "bilder".
  - Jag föredrar aktiviteter som inte kräver att jag läser mycket.
  - Jag spenderar väldigt lite tid på att försöka utveckla mitt ordförråd.
  - Jag gillar att dagdrömma.
- Q14 Vänligen ange hur väl följande påståenden passar in på dig.
- Jag föredrar att utföra två eller fler aktiviteter samtidigt.
  - Vanligtvis utför jag två eller fler aktiviteter samtidigt.
  - Att utföra två eller fler aktiviteter samtidigt är den mest effektiva användningen av min tid.
- Q15 Vänligen ange hur väl följande påståenden passar in på dig.
- Att lyssna på ljudböcker ger mig en känsla av sällskap.
  - Att lyssna på ljudböcker är för mig en lustfylld aktivitet.
  - Jag känner mig trygg av att lyssna på ljudböcker.
  - Jag tycker om att lyssna på ljudböcker.
  - Jag känner mig mindre ensam när jag lyssnar på ljudböcker.
  - Jag föredrar att ha ljud i bakgrunden hellre än att det är helt tyst.
- Text Nedan följer ett antal påståenden om digitala abonnemangstjänster. Med digitala abonnemangstjänster för ljudböcker avses tjänster så som Storytel, BookBeat, Nextory etc. Om du inte redan lyssnar på ljudböcker genom en digital abonnemangstjänst, föreställ dig att du skulle göra det.”
- Q16 Vänligen ange hur väl följande påståenden passar in på dig.
- Att använda en digital abonnemangstjänst för ljudböcker ökar effektiviteten av min fritidsläsning.
  - Att använda en digital abonnemangstjänst för ljudböcker ökar produktiviteten av min fritidsläsning.
  - Digitala abonnemangstjänster för ljudböcker är användbara för min fritidsläsning.
  - Att använda en digital abonnemangstjänst för ljudböcker förbättrar min prestation i min fritidsläsning.
- Q17 Vänligen ange hur väl följande påståenden passar in på dig.
- Det är lätt för mig att lära mig hur jag ska hantera en digital abonnemangstjänst för ljudböcker.
  - Det är lätt för mig att få en digital abonnemangstjänst för ljudböcker att göra det jag vill att den ska göra.
  - Det är lätt för mig att bli duktig på att använda en digital abonnemangstjänst för ljudböcker.
  - Digitala abonnemangstjänster för ljudböcker är enkla att använda.
- Q18 Vänligen ange hur väl följande påståenden passar in på dig.
- Jag anser att digitala abonnemangstjänster för ljudböcker är enkla att ta med mig när jag är på språng.
  - Digitala abonnemangstjänster för ljudböcker är väldigt portabla.
  - De mobilappar jag ibland använder istället för att använda min dator har väldigt begränsad funktion.



- De mobilappar jag ibland använder istället för att använda min dator är välanpassade för min mobil.
  - Jag anser att digitala abonnemangstjänster för ljudböcker är portabla utan att vara begränsade.
- Q19 Vänligen ange hur väl följande påståenden passar in på dig.
- En fast månadskostnad är utmärkt eftersom jag inte behöver oroa mig för kostnaderna.
  - Det är inte lika kul att göra något när jag vet att kostnaderna ökar för varje enhet jag förbrukar.
  - Det är bara när jag har en fast månadskostnad som jag riktigt kan njuta av en tjänst.
  - När jag har en fast månadskostnad känner jag mig mycket friare och lugnare med att använda tjänsten än om den skulle baseras på rörlig kostnad.
- Q20 Vänligen ange hur väl följande påståenden passar in på dig. Med "en enskild ljudbok" avses val av en ljudboksenhet, exempelvis i form av en MP3-fil, CD eller kassett. Med "en digital abonnemangstjänst" avses val av en tjänst med ett stort sortiment av ljudböcker att välja från, exempelvis Storytel, BookBeat eller Nextory.
- Jag är bekväm med att välja en digital abonnemangstjänst framför en enskild ljudbok.
  - Jag känner mig nöjd med att välja en digital abonnemangstjänst framför en enskild ljudbok.
  - Jag upplever negativa känslor över att välja en digital abonnemangstjänst framför en enskild ljudbok.
  - Oavsett om det är "det bästa valet" eller inte är jag okej med att välja en digital abonnemangstjänst framför en enskild ljudbok.
  - Även om jag inte vet ifall valet av en digital abonnemangstjänst är det bästa, känner jag mig helt bekväm med valet jag gjort.
- Q21 Vänligen ange hur väl följande påståenden passar in på dig.
- Jag tycker om att ge mig själv extra tid för att få saker gjorda.
  - Jag är vanligtvis väldigt bra på att räkna ut hur lång tid det kommer ta att slutföra en uppgift.
  - Jag är duktig på att hålla takten så att jag får saker gjorda i tid.
  - Jag är väldigt noggrann i mitt arbete.
  - Det är viktigt för mig att utnyttja min tid på bästa sätt.
  - Jag använder min tid effektivt.
  - Jag är aktsam med att inte slösa min tid.
- Q22 Kön
- Kvinna
  - Man
  - Annat
- Q23 Vilket år är du född?
- Q24 Vad är din högsta slutförda utbildning?
- Grundskoleutbildning, realskola, folkskola eller motsvarande
  - Gymnasieutbildning, folkhögskola eller motsvarande
  - Universitets- eller högskoleutbildning på kandidatnivå eller motsvarande
  - Universitets- eller högskoleutbildning på masternivå eller motsvarande
  - Yrkesutbildning eller motsvarande
  - Forskarutbildning eller motsvarande
  - Annat
- Q25 Vad är din huvudsakliga sysselsättning?
- Studerar
  - Arbetar

- Tjänstledig
  - Föräldraledig
  - Arbetslös
  - Pensionär
  - Sjukskriven
  - Annat
- Q26 Hur enformig/monoton tycker du att din huvudsakliga sysselsättning är? Till exempel arbetsuppgifter och arbetsmiljö.
- Q27 Hur lång är din transporttid per väg mellan ditt hem och din huvudsakliga sysselsättning?
- Jag pendlar ej
  - 1-14 minuter
  - 15-29 minuter
  - 30-44 minuter
  - 45-59 minuter
  - 60 minuter eller mer
- Q28 Har du någon dokumenterad lässvårighet?
- Ja
  - Nej
  - Vet ej
  - Vill inte svara
- Q29 Slutligen ber vi dig att ge ditt omdöme om detta formulär.
- Frågorna var klart formulerade.
  - Svarsalternativen var klart formulerade.
  - Undersökningen är meningsfull.
  - Enkätfrågorna försökte påverka dina svar i någon viss riktning.
-

## Appendix 4: Distribution of questionnaire using social media forums

**Table 32:** Distribution channels of questionnaire using social media forums

Facebook groups	First publication	Number of members at first publication	Second publication	Number of members at second publication
Storytel-vi som gillar ljudböcker	April 1, 2019	1 999	April 4, 2019	2 000
Snacka om ljudböcker!	April 1, 2019	13 840	April 4, 2019	13 852
Kollektivet - en bokcirkel	April 1, 2019	1 110	April 4, 2019	1 113
Älskade böcker hos Bokhyllarna	April 1, 2019	1 033	April 4, 2019	1 034
925	April 1, 2019	12 131	.	.
Vi som älskar ljudböcker	April 1, 2019	966	.	.
Ljudboksgruppen	April 1, 2019	314	.	.
Vi lyssnar på böcker, vår bokcirkel	April 1, 2019	1 803	.	.
Ljudboken	April 1, 2019	420	.	.
Vi som älskar att läsa böcker!	April 1, 2019	15 439	.	.
Ljudbokstips	April 1, 2019	151	.	.
Snacka om böcker!	April 2, 2019	7 999	.	.
Heja Bokcirkel Stockholm	April 2, 2019	80	.	.

## Appendix 5: Cronbach's alphas

**Table 32:** Compilation of Cronbach's alphas for indexed variables in main study

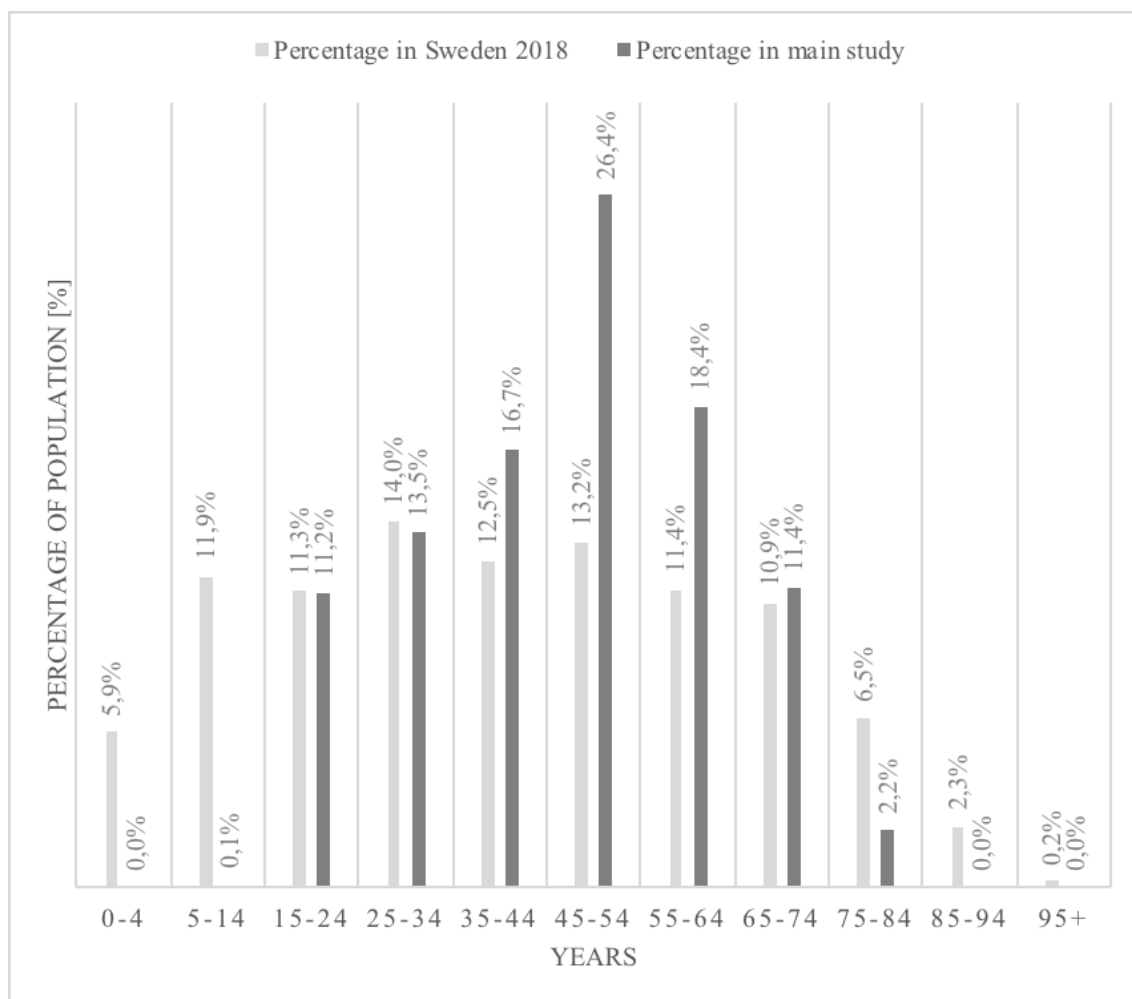
Variable	Cronbach's alpha	n
Need for cognition**	0.73	958
Preference for auditory experiences***	0.22	958
Polychronicity**	0.89	958
Need for companionship***	0.89	958
Attitude towards audiobooks**	0.97	958
Intention to use audiobooks**	0.97	958
Perceived usefulness*	0.92	605
Perceived ease of use*	0.92	605
Taxi meter effect*	0.77	605
Preference for trialability*	0.89	605
Perceived portability*	0.73	605
Need for time use efficiency*	0.82	605
Attitude towards digital subscription services for audiobooks**	0.98	605
Intention to use digital subscription services for audiobooks**	0.98	605

\* Number of scale points 7

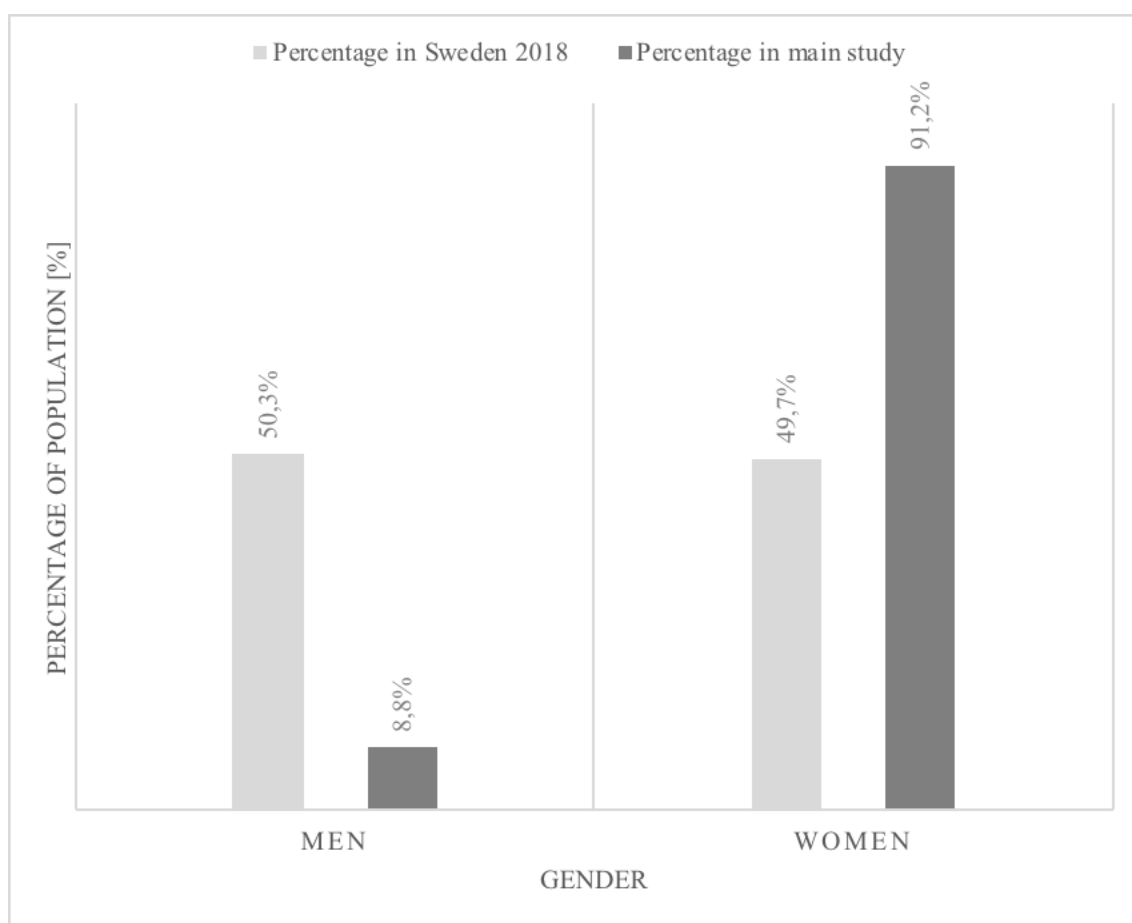
\*\* Number of scale points 5

\*\*\* Number of scale points 4

## Appendix 6: Graphs comparing the respondents to the Swedish population

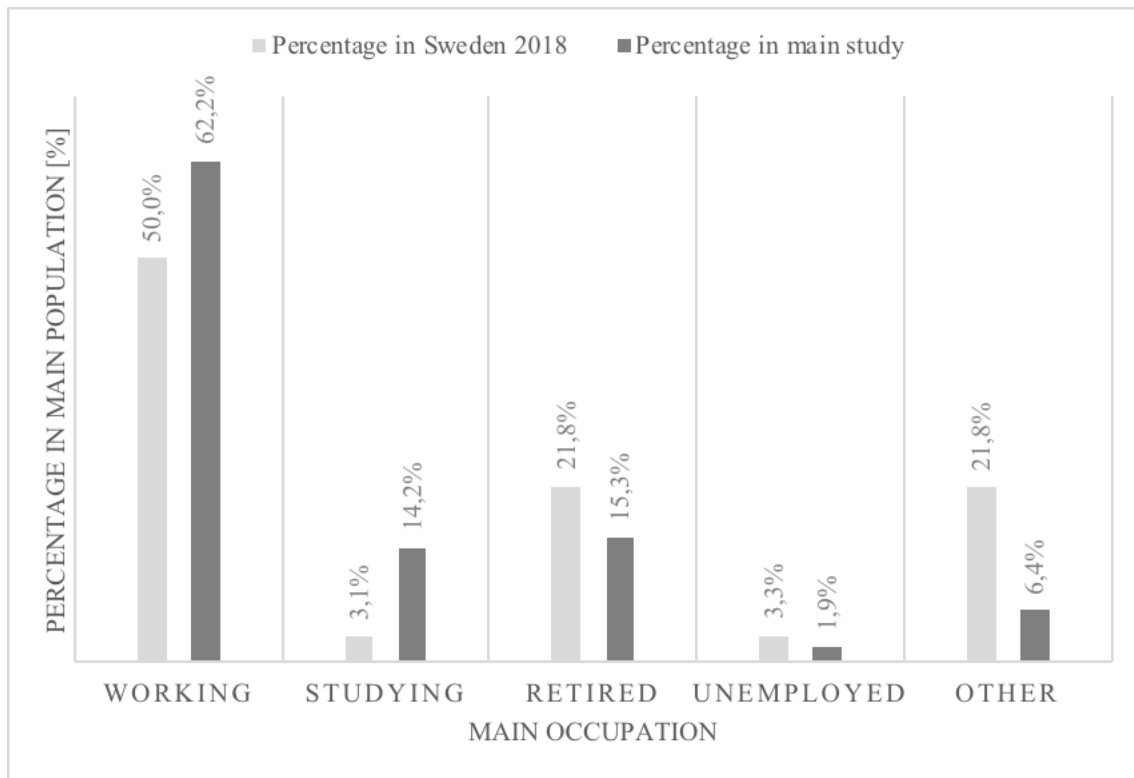


**Figure 12:** Age distribution for the valid responses of the main study (N = 958) compared to age distribution in Sweden 2018 (*Folkmängden efter region, civilstånd, ålder och kön. År 1968 - 2018, n.d.*)

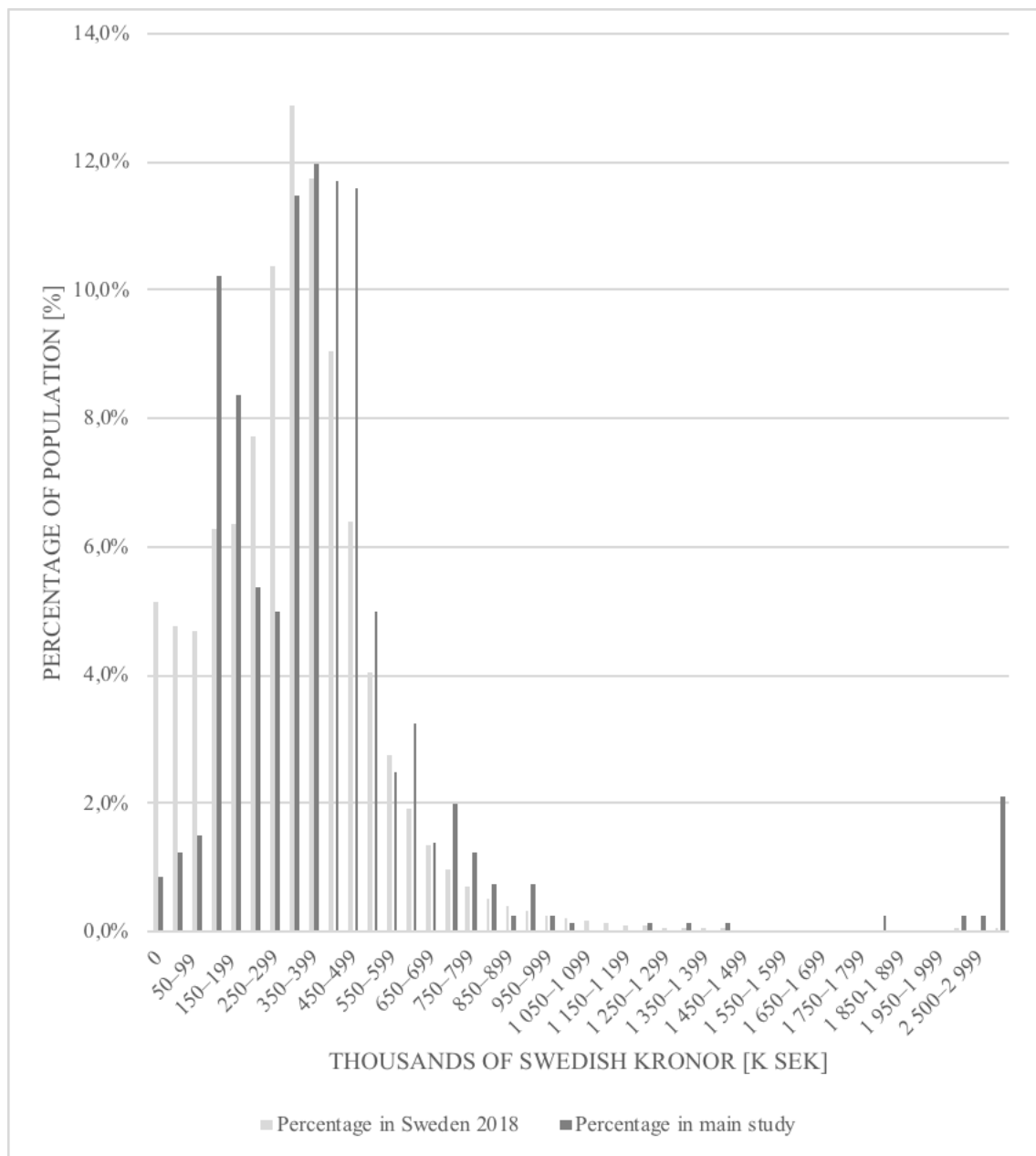


**Figure 13:** Gender distribution for the valid responses of the main study (N = 954) compared to gender distribution in Sweden 2018 (*Sveriges befolkning*, 2019)<sup>29</sup>

<sup>29</sup> Excluding non-binary respondents (n = 4) as this category is not included in Statistiska centralbyrån's data (*Sveriges befolkning*, 2019).

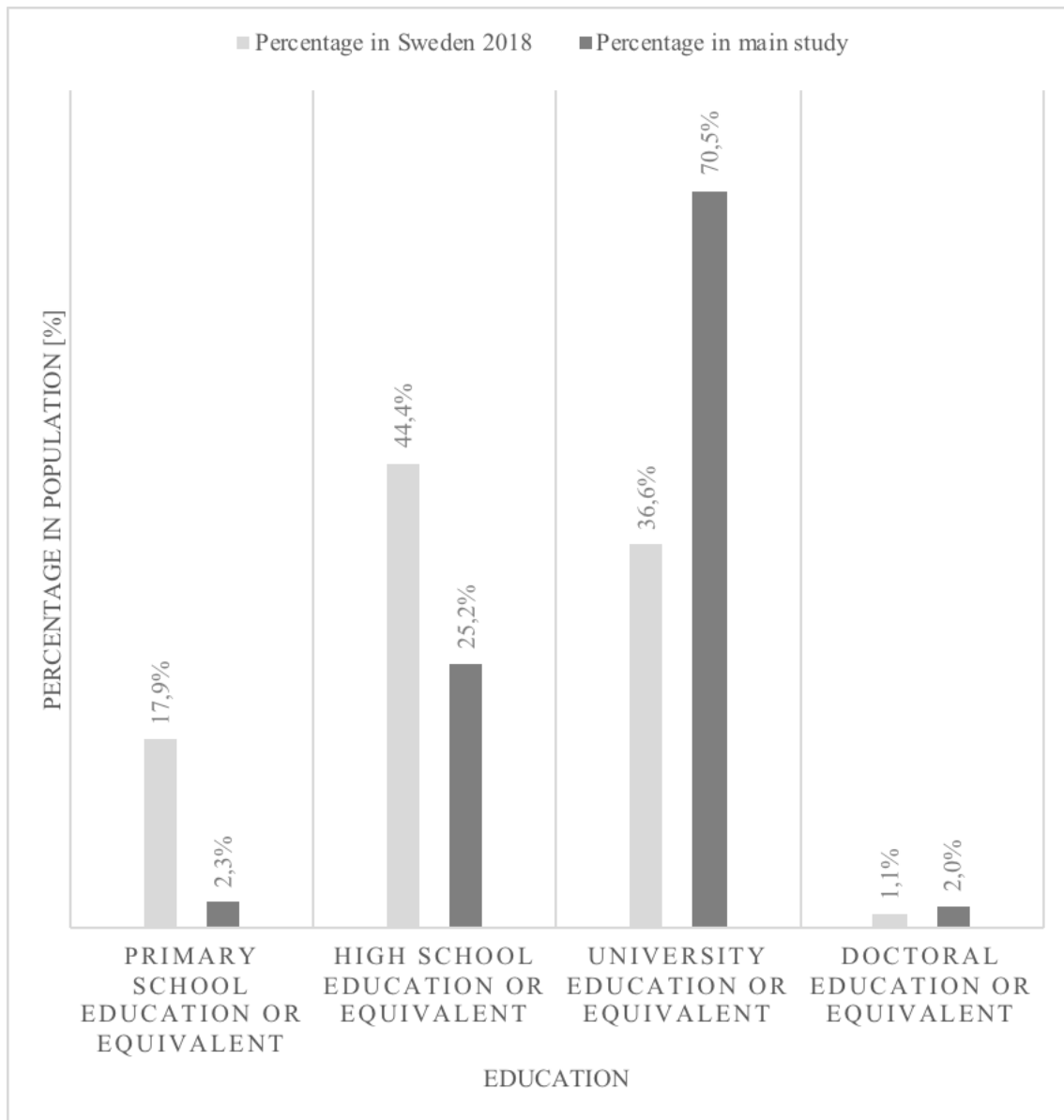


**Figure 14:** Main occupation distribution for the valid responses of the main study (N = 958) compared to main occupation distribution in Sweden 2018 (*Sysselsättning i Sverige*, 2018; *Antal registrerade studenter VT2018*, n.d.; *Statistik om allmän pension*, n.d.; *Sjukskrivna*, 2019)



**Figure 15:** Yearly income distribution for the valid responses of the main study (N = 958) compared to yearly income distribution in Sweden 2017 (*Sammanräknad förvärvsinkomst för boende i Sverige den 31/12 resp år (antal personer, medel- och medianinkomst samt totalsumma) efter region, kön, ålder och inkomstklass. År 1991 - 2017, n.d.*)





**Figure 16:** Education distribution for the valid responses of the main study (N = 958) compared to education in Sweden 2018 (*Befolkning 16-74 år efter region, utbildningsnivå, ålder och kön. År 1985 - 2018, n.d.*)

## Appendix 7: Results of linear regression analyses

To predict the impact of a number of factors on respondents' attitude towards audiobooks, the following linear regression was performed:

$$\text{Attitude towards audiobooks} = \beta_0 + \beta_1 \text{Need for cognition} + \beta_2 \text{Polychronicity} + \beta_3 \text{Need for comfort}$$

The model, Model A<sub>8</sub>, was statistically significant, ( $F(3,954) = 414.46, p < 0.00$ ), and had an Adjusted R Square value of 0.56. In Table 33, the unstandardized  $\beta$  values for each independent variable in Model A<sub>8</sub> are presented.

**Table 33:** Linear regression analysis between independent variables and attitude towards audiobooks (dependent variable)

	Model A <sub>8</sub> (n = 958)
	$\beta$
Need for cognition	0.00
Polychronicity	0.16*
Need for companionship	0.99*
Constant	0.74*

\*  $p < 0.05$

To predict the impact of a number of factors on respondents' intention to use audiobooks, the following linear regression was performed:

$$\begin{aligned} \text{Intention to use audiobooks} = & \beta_0 + \beta_1 \text{Attitude towards audiobooks} \\ & + \beta_2 \text{Subjective norms for audiobooks} \end{aligned}$$

The model, Model B<sub>8</sub>, was statistically significant, ( $F(2,955) = 1185.10, p < 0.00$ ), and had an Adjusted R Square value of 0.71. In Table 34, the unstandardized  $\beta$  values for each independent variable in Model B<sub>8</sub> are presented.

**Table 34:** Linear regression analysis between independent variables and intention to use audiobooks (dependent variable)

	Model B <sub>8</sub> (n = 958)
	$\beta$
Attitude towards audiobooks	0.86*
Subjective norms for audiobooks	0.17*
Constant	-0.75

\*  $p < 0.05$

To predict the impact of a number of factors on respondents' attitude towards digital subscription services for audiobooks, the following linear regression was performed:

$$\begin{aligned}
& \text{Attitude towards digital subscription services for audiobooks} \\
& = \beta_0 + \beta_1 \text{Perceived usefulness} + \beta_2 \text{Perceived ease of use} \\
& + \beta_3 \text{Taxi meter effect} + \beta_4 \text{Preference for trialability} \\
& + \beta_5 \text{Perceived portability} + \beta_6 \text{Need for time use efficiency}
\end{aligned}$$

The model, Model C, was statistically significant, ( $F(6,598) = 113.94, p < 0.00$ ), and had an Adjusted R Square value of 0.53. In Table 33, the unstandardized  $\beta$  values for each independent variable in Model C are presented.

**Table 35:** Linear regression analysis between independent variables and attitude towards digital subscription services for audiobooks (dependent variable)

	Model C (n = 605)
	$\beta$
Perceived usefulness	0.29*
Perceived ease of use	0.01
Taxi meter effect	0.04
Preference for trialability	0.14*
Perceived portability	0.06
Need for time use efficiency	-0.02
Constant	1.53*

\*  $p < 0.05$

To predict the impact of a number of factors on respondents' intention to use digital subscription services for audiobooks, the following linear regression was performed:

$$\begin{aligned}
& \text{Intention to use digital subscription services for audiobooks} \\
& = \beta_0 + \beta_1 \text{Attitude towards digital subscription services for audiobooks} \\
& + \beta_2 \text{Subjective norms for digital subscription services for audiobooks}
\end{aligned}$$

The model, Model D, was statistically significant, ( $F(2,602) = 383.46, p < 0.00$ ), and had an Adjusted R Square value of 0.56. In Table 36, the unstandardized  $\beta$  values for each independent variable in Model D are presented.

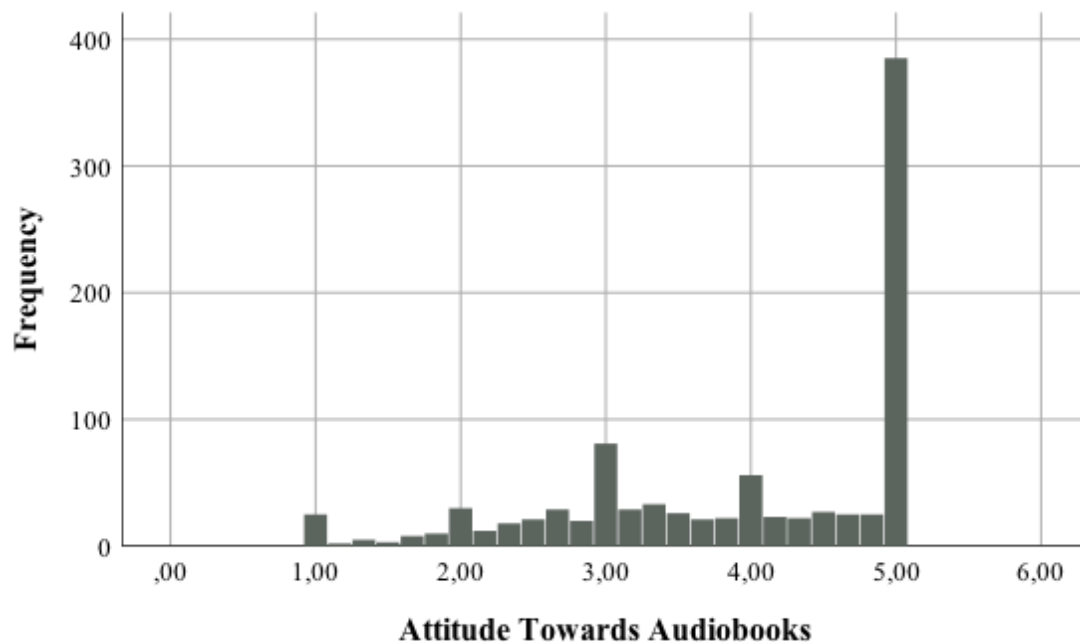
**Table 36:** Linear regression analysis between independent variables and intention to use digital subscription services for audiobooks (dependent variable)

	Model D (n = 605)
	$\beta$
Attitude towards digital subscription services for audiobooks	0.79*
Subjective norms for digital subscription services for audiobooks	0.08*
Constant	0.62*

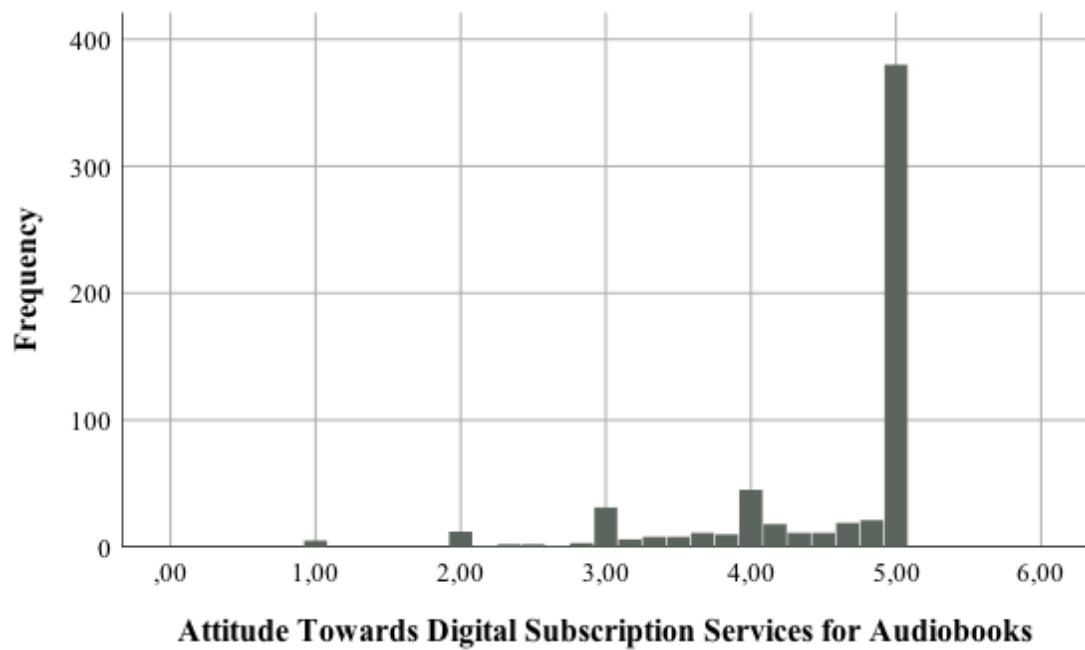
\*  $p < 0.05$

### Appendix 8: Change in method for analysis

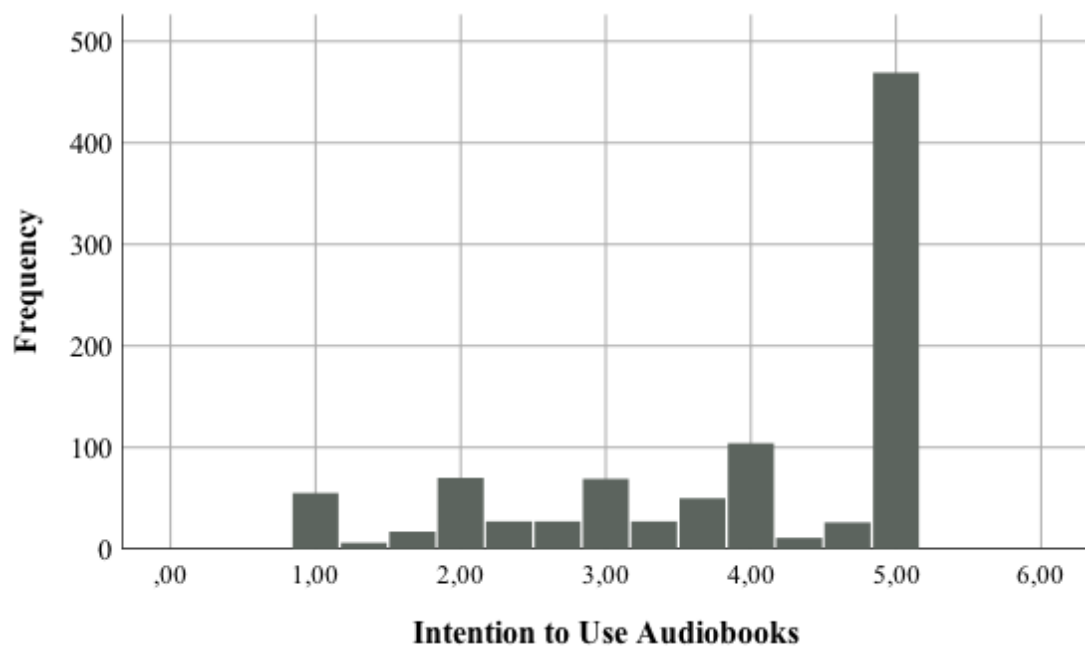
The authors had initially planned to use a linear regression analysis to study the attitude towards and intention to use audiobooks and digital subscription services for audiobooks. However, after collecting the data, highly skewed distributions of the total population's responses to the intended dependent variables were detected, as presented in Figures 17-20.



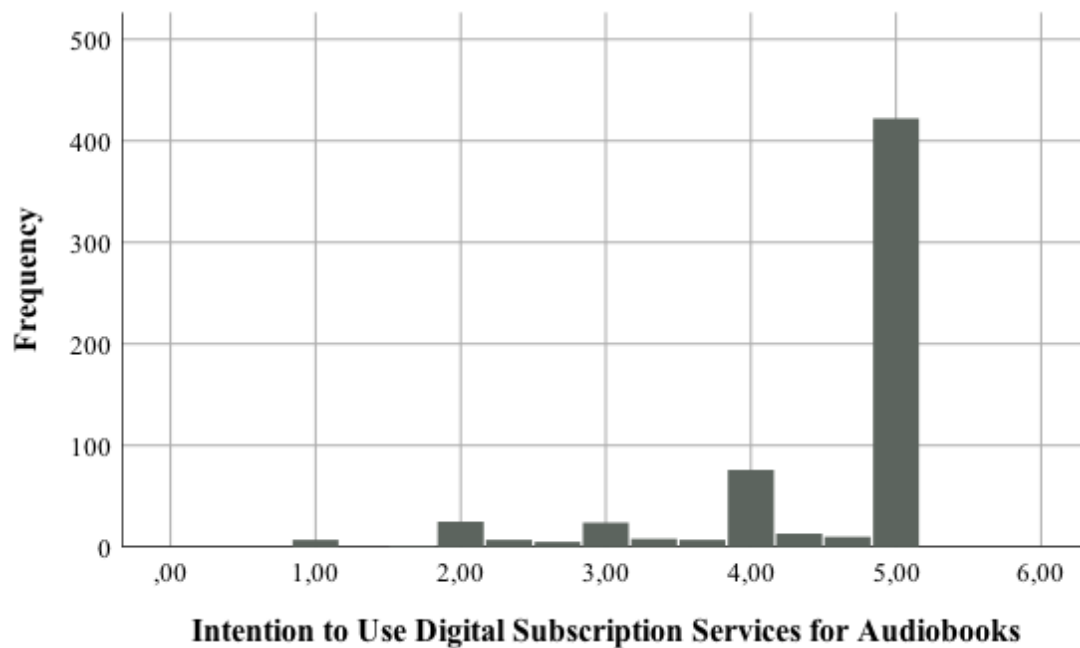
**Figure 17:** Histogram of the attitude towards audiobooks for the valid responses of the main study (N = 958)



**Figure 18:** Histogram of the attitude towards digital subscription services for audiobooks for the valid responses of audiobooks listeners of the main study (n = 605)



**Figure 19:** Histogram of the intention to use audiobooks for the valid responses of the main study (N = 958)



**Figure 20:** Histogram of the intention to use digital subscription services for audiobooks for the valid responses of audiobooks listeners of the main study (n = 605)

The distributions violate the assumptions of a linear regression analysis, and thus this type of analysis could not be performed. With regards to the obtained data, the following was decided upon instead:

- A binary logistic regression analysis was used to study the attitude towards and intention to use audiobooks. This was done by transforming the dependent variables to dichotomous variables. For attitude towards audiobooks, the value 0 represents those with a negative or neutral attitude, and the value 1 represents those with a positive attitude. For intention to use audiobooks, the value 0 represents those who do not intend to use audiobooks or are indifferent, and the value 1 represents those who do intend to use audiobooks<sup>30</sup>. The transformation of the dependent variables led to a total of 447 valid respondents for this analysis, which well exceeds the recommended sample size for logistic regression analyses of 10 times the number of estimated model coefficients (Hair Jr. et al., 2014).
- The distributions of the attitude towards and intention to use digital subscription services for audiobooks were considered too skewed to perform a linear regression analysis. A logistic regression analysis was also ruled out, as the two variables could

<sup>30</sup> More specifically, the value 0 includes those who reported a value between 1 and 3 for the original independent variable. The value 1 includes those who reported a value between 3.01 and 4.99 for the original independent variable. Respondents who reported a value of 5 for each respective variable were excluded in the transformed variable. This is because the variables did not pass the Box-Tidwell test when including the value of 5, indicating non-linearity, which is a basic assumption for logistic regressions (Menard, 2011).

not be reliably transformed into dichotomous variables excluding respondents reporting the value of 5 for either dependent variable, as this would result in too few respondents. Thus, an analysis of descriptive statistics and correlations is used to study the attitude towards and intention to use digital subscription services for audiobooks.