The Effect of Perception and Usability on E-reader User Satisfaction: A Case Study on Autobase Twitter @literarybase

Renate Selma Hilaby [a], Ahmad Maulidizen [a], Muhammad Azwar [b, *]

[a] Sekolah Tinggi Ilmu Manajemen dan Ilmu Komputer ESQ Jakarta, Indonesia
[b] Universitas Islam Negeri Syarif Hidayatullah Jakarta, Indonesia

Abstract

Although it sparked a lot of attention from the media and the public at the beginning of its release in 1998, even today's e-reader devices do not automatically beat the popularity of printed books. It is due to the inability of e-readers to provide responsive features, and there are still many book fans who are happy with their own experience of reading printed books. This study aims to analyze how perception and usability affect e-reader user satisfaction. The population in this study are followers of Autobase Twitter @literarybase. This study uses non-probability sampling with a purposive sampling technique. The sample chosen is people who have had the experience of reading a book using an e-reader device. Conducted The research with quantitative methods using data from 132 respondents through the distribution of questionnaires with a Likert scale as primary data. The test uses a data instrument, correlation coefficient, classical assumption test, and multiple linear regression test. The real test is done with SPSS software. The results showed that each variable, Perception (X_1) and Usability (X_2), had the same effect, either partially or jointly, on the Consumer Satisfaction variable (Y). The conclusion shows readers do not have problems with old stereotypes and perceptions about reading activities that e-reader devices cannot present. The absence of a distinctive fragrance, attractive cover, page-turning activity, and many other things closely related to printed books did not eliminate the pleasure of respondents when using the e-reader device. Readers also view usability on e-reader devices as good performance, both in terms of features, navigation, and device responsiveness.

Keywords: consumer satisfaction, perception, usability, e-reader, digital literacy.

1. Introduction

Although it has been around since 1998, e-readers only began to gain attention from the public when Amazon released the Kindle e-reader in November 2007. N. Stone (Stone, 2008) wrote that at that time, critics thought that the appearance of e-readers was still below printed books but was considered a significant innovation, with predictions that this technology would soon replace printed books. After its release and marketing, e-reader sales are increasing year by year. From 2009 to 2011, the percentage of ownership of e-readers in the United States continued to grow (Purcell, 2011). According to the Association of American Publishers, the rate of e-book sales in 2010 also increased by 200 % compared to the previous year (Jung et al., 2012). However, this golden age of e-readers did not last long. After experiencing an increase for several years, the percentage of e-reader ownership also experienced a sharp decline in 2015 (Pew Research Center, 2015).

---

* Corresponding author
E-mail addresses: muh.azwar@uinjkt.ac.id (M. Azwar)

Table 1. Percentage of E-readers in the USA (Source: Pew Research Centre, 2015)

2010	2011	2012	2013	2014	2015
5 %	8 %	27 %	24 %	28 %	18 %

It is generally a form of reader dissatisfaction with e-reader devices. Many factors are considered to affect the satisfaction of e-reader users. E-Readers often pay less attention to function and beauty in device design. In his research, J. Rodzvilla (Rodzvilla, 2009) suggests that e-reader users do not have problems with digital screens, and their visual experience is comparable to reading printed books. However, they feel that the interface of the e-reader device is confusing and unintuitive. Many users of e-readers think reading is easier on printed books than on e-readers (Hancock et al., 2016). E-reader users dislike poor navigation (Richardson, Mahmood, 2012).

E-reader users also have problems with reasonably short battery life, a relatively slow duration when opening pages and a display judged to be blinding to the eye (Behler, Lush, 2010). However, e-readers have highlighting, notetaking, and bookmarking functions. A. Behler dan B. Lush (Behler, Lush, 2010) state that e-reader technology is far from being needed to replace traditional books. S.M Bruss and N. Allmang (Bruss, Allmang, 2010) agree that "the perfect e-reader has not yet been found," and e-reader users feel that there are still many features to be developed. Although many users report some dissatisfaction with certain features, they still like the value of portability offered by e-readers (Pattuelli, Rabina, 2010). Mobility has also been identified as an essential characteristic of printed books that e-readers seem to have surpassed (Sehn, Fragoso, 2015).

E-reader users love how they can read more than one book anytime and anywhere without carrying a lot of stuff. One e-reader device can accommodate more than thousands of books so that users are free to choose whichever book they want to read at the same time. Even when reading in public places, holding an e-reader is much lighter and more practical than a printed book. However, not few also have concerns when using e-reader devices in public places for fear of being robbed (Sehn, Fragoso, 2015)

One thing that is also considered an essential factor in e-reader user satisfaction is the relationship between readers and the devices used. Some people think reading, even if just for fun, to be an emotional experience that must enjoy. The emotional connection with printed books makes readers less likely to use digital devices for reading activities. Various elements and stimuli influence the reading experience in the reader's reading device. One is the reader's experience when holding an e-reader or tablet and holding a printed book.

People's desire to read a book on paper is, in fact, powerful (Sehn, Fragoso, 2015). In his research, L.M. Moore (Moore, 2009) revealed that the feeling of holding a physical object when e-readers cannot offer reading, and this is one of the factors that influence the attractiveness of printed books. People feel that they have no real relationship when reading digital books due to the assumption that turning page by page when reading a book is more natural than having to press buttons or touch the screen (Hancock et al., 2016). The reader already has an initial perception of a book, and this idea includes the configuration of material in a printed book that is very different from that of an e-reader.

Not only that, L.M Moore (Moore, 2009) also mentions that one of the interactions that e-readers cannot replace readers often comment on that is the olfactory attraction that e-readers cannot provide. Many readers like the distinctive fragrance that emerges from the papers in printed books. It certainly cannot be provided by an e-reader because this technology does not have a sheet of paper. The emotional bond presented by printed books in terms of olfactory appeal is one factor that makes people unable to turn away from printed books (Sehn, Fragoso, 2015). Readers already strongly perceive that reading activities are closely related to printed books. The inability of e-readers to fulfil this perception of reading activity is one of the reasons why people still tend to choose printed books.

Indonesia itself occupies the 25th position out of 41 countries in terms of interest in books (Picodi, 2019). In his research results, Picodi (Picodi, 2019) stated that 67 % of Indonesians bought at least one book in the last year. The book format that is most in demand by the Indonesian people is the 'regular book' or printed book. Although there are many choices of titles offered by digital texts, only 27 % of respondents buy books in e-book format. It shows that Indonesian people still buy printed books compared to e-books. Even so, e-readers are not standard objects in the ears of Indonesian readers. On Autobase Twitter @literarybase, for example, readers often upload photos

or writings about their reading activities using an e-reader device. Readers also often share their experiences in the form of pros and cons while using e-readers with other readers curious about e-readers. Not infrequently, the experiences shared online make other readers interested in purchasing e-readers. Autobase Twitter was created as a place for followers to send information or questions following the topic carried by each auto-based. In this case, @literarybase brings up the subject of literature and literacy. Information and questions will be sent via Direct Message and sent anonymously. Other auto-based followers will then respond to the information and questions submitted. By using the population of followers of Autobase Twitter @literarybase, this study will further examine the effect of perceptions of e-reader users in Indonesia on printed books and the usability of e-reader devices on user satisfaction.

2. Materials and methods

a. Consumer satisfaction

Can interpret Consumer satisfaction as fulfilling a consumer's need or desire through the purchased product (Gaspersz, 2018). Tjiptono (Tjiptono, 2020) states that the customer satisfaction model can be divided into two indicators, namely cognitive and affective:

1) Cognitive

Cognitive consumer satisfaction results from the thoughts or expectations of consumers towards the product purchased. Consumer satisfaction is cognitively divided into three models:

a) Conformity of expectations

The outcome of a product purchased is in sync with expectations or what is in the minds of consumers before making a product purchase.

b) Balance theory

If the outcome obtained, in this case, the product purchased follows what the prospective buyer gives to get the product, it will create satisfaction. In this case, the input can be money, distance to the shop, etc.

c) Product Attributes

Conformity of the product with what is in the description or written by the marketer.

2) Affective

In contrast to cognitive, affective includes more in the emotional or feeling realm. Good feelings can be reviewed through the emotions and moods of consumers when getting and using the product.

In this research, the consumer satisfaction variable is used to measure user satisfaction with e-readers which are influenced by user perception and usability of the device. The consumer satisfaction indicator uses the theory initiated by F. Tjiptono (Tjiptono, 2020), in which the satisfaction of e-reader users includes cognitive and affective satisfaction. Cognitive happiness consists of three aspects: the suitability of expectations, balance theory, and product attributes. Conformity of expectations is defined as the expected performance of the e-reader at the time of pre-purchase and whether or not these expectations are met. The balance theory in question is that the benefits received by e-reader users follow the input (price) paid when purchasing an e-reader. Product attributes assess the suitability of the product description with the product, both from the seller and the description contained in the product features. At the same time, adequate satisfaction aims to determine the emotions and moods felt by e-reader users when making purchases and using e-readers.

b. Perception

Perception is the brain's ability to translate incoming stimuli into the human senses (Rahmat, 2018). For the perception process to work, humans need receptors in the five senses to capture incoming stimuli from the surrounding environment (May, 2009). In this study, the indicators used to describe adapted the perception process from S. Rofi'ah (Rofi'ah, 2017), who, in his research, initiated the following theory:

1) Absorption or acceptance

The stimulus or object is absorbed or received by the five senses, sight, hearing, touch, and smell, individually or together.

2) Understanding

After the images occur in the brain, the images will be organized and interpreted to form understanding.

3) Assessment or evaluation

After forming an understanding or understanding, there is an assessment of the individual. Individuals compare the newly acquired knowledge with the criteria or norms that the individual has subjectively.

This study will adapt the theory used to the research object. The absorption or reception process consists of the sensations received by the e-reader user regarding the lighting on the device, the device's configuration, and the device material. The process of understanding or understanding in question is how e-reader users recognize and observe the differences in stimuli in e-readers and printed books that catch their attention. It includes the sensation of using technology screens in reading activities, the loss of turning the paper while reading a book, the absence of a cover visible during reading activities, the lack of fragrance provided by the e-reader device, and several other things. This study's assessment or evaluation process is the conclusion of e-reader users to e-reader devices. Based on the previous knowledge that e-reader users have about reading books traditionally, e-reader users can conclude whether the use of e-reader devices can satisfy their reading activities or not.

c. Usability

Usability is the extent to which a product can be used by specific users to achieve the set targets effectively and efficiently and achieve user satisfaction in particular contexts (ISO, 1998). Usability has five indicators that can be assessed:

1) *Learnability* is how fast users are proficient in using the system to perform a function.
2) *Efficiency*, namely as a resource or effort expended to achieve the goal.
3) *Memorability* is the ability of users to retain their knowledge after a certain period.
4) E*rrors* are errors made by the user, including the discrepancy between what the user thinks and what is presented by the system.
5) S*atisfaction*, freedom from discomfort, and a positive attitude towards using the product (Rahadi, 2014).

The usability concept used in this study fully develops the theory initiated by D.R. Rahadi (Rahadi, 2014) *as how easy the features and navigation an e-reader provides for users to understand. The more users consider the features and navigation provided by e-readers to be easy to understand, the faster they will become proficient at using them* (Wu et al., 2021). *Efficiency* is the time users take to achieve specific goals, such as searching for particular pages, annotating, buying e-books, and transferring e-book data (Jamaludin et al., 2020). *Memorability* is the ability of users to remember the features provided by e-readers (Weichbroth, 2020). Errors lead to the placement of buttons/features that are not appropriate, causing users to click wrongly often, as well as naming features that do not match their function (Canziba, 2018). And lastly, satisfaction is defined as the user's conclusion on their satisfaction with using the e-reader in terms of features, navigation, responsiveness, and price (Tovstiadi et al., 2018).

d. E-Reader

According to the Cambridge Learner's Dictionary (Cambridge…, 2021), an e-reader is a small electronic device with a screen that allows users to read books in electronic form. The history of e-books began in 1971 with the advent of Project Gutenberg, and the history of portable e-book readers started in 1998 with the advent of two mobile devices – the Soft Book reader and the Rocket eBook (Pattuelli, Rabina, 2010). Although e-readers have been around since 1998, these devices have not yet significantly impacted consumers' spending and reading habits (Stone, 2008).

This study uses a descriptive quantitative method with three variables, namely Perception (X_1) and Usability (X_2) as the independent variable and Consumer Satisfaction (Y) as the dependent variable. The population used is the followers of Autobase Twitter @literarybase. The @literarybase account has tweeted 209 thousand times and has 539 thousand followers since it was created in July 2018. Followers of the @literarybase account use this auto-base as a platform to request reading recommendations, provide reading reviews, sell books, and even submit personal literary works.

To determine the research sample, the sampling used in this study is non-probability sampling with a purposive sampling technique. The number of pieces was determined using the Slovin formula for as many as 100 respondents. The data collection method used is the form of a questionnaire. The Likert Scale is the Likert Scale (Creswell, Creswell, 2018) .

To measure the correlation and the effect of Perception and Usability variables on the Consumer Satisfaction variable, this study used correlation coefficient testing and multiple linear regression tests. The correlation coefficient aims to measure the magnitude of the value of the relationship between the independent variable and the dependent variable. In contrast, the multiple linear regression test, which consists of the t-test, F-test, and coefficient of

determination, determines the direction and magnitude of the influence of the independent variable on the dependent variable, either partially or jointly (Creswell, Creswell, 2018).

2. Discussion
a. Perception

In discussing the Perception variable (X1), the statement items will be divided into five specific concentrations. The five concentrations are screen lighting, grip configuration and comfort, visual aesthetics, olfactory sensation, and reading feeling.

1) Backlight

One of the advantages of e-readers compared to printed books is their ability to adjust the light on the reading screen to the light in the surrounding environment (Nasrullah, 2022; Schwabe et al., 2021).

Table 2. Respondent's responses to e-reader screen lighting

Statement	A	N	DA
"I like using the e-reader because the screen's brightness is adjustable"	95 %	4 %	1 %
"I wouldn't say I like utilizing an e-reader device because the screen lighting makes my eyes tired quickly"	3 %	11 %	87 %

Source: Excel Data Processing, 2022

The majority of respondents liked the feature of being able to adjust the screen lighting on the e-reader. Therefore, the process of absorption or acceptance of this feature received a positive response from respondents. It then results in a good assessment or evaluation indicator because, in the conclusion statement regarding eye comfort with the e-reader screen lighting, the majority of respondents stated that the e-reader screen lighting did not tire their eyes and still enjoyed using it. It shows that most respondents with no problem lighting the e-reader screen can conclude this privilege is one of the advantages of e-readers (Fernandez, 2020).

2) Configuration and grip comfort

Often, reading activities require readers to hold the e-reader for hours. The gripping comfort felt by the reader when carrying out reading activities is one of the crucial things that must be considered by reading media providers (Kang et al., 2021; Price, 2019).

Table 3. Respondent's responses regarding the configuration and comfort of holding the e-Reader

Statement	A	N	DA
"I like to use e-readers because they are small and thin"	93 %	6 %	1 %
"I don't like using an e-reader because the surface is slippery when I hold it"	9 %	17 %	73 %
"I don't like using the e-reader because it's not comfortable to hold"	5 %	14 %	81 %
"I like using an e-reader because it is easy to carry anywhere"	100 %	-	-

Source: Excel Data Processing, 2022

The majority of respondents like the e-reader configuration that is small and thin. It is undoubtedly considered an advantage of e-readers compared to printed books. Printed books have layers of paper, making them thick and slightly uncomfortable when held in hand for long periods. E-Readers help eliminate this inconvenience by removing the paper coating on printed books and replacing them with metal and other technological components like other gadgets (Bailey, 2019). Some people often consider devices to have a slippery texture. A quarter of the respondents agreed or were neutral with the statement about the smooth surface of the e-reader. Most respondents still enjoy using the e-reader and do not consider it to have a slippery surface. It is concluded that the process of absorption or acceptance of e-reader users towards the convenience of this device can be said to be positive.

In the assessment or evaluation statement, the majority of respondents have no problem with the convenience of holding an e-reader. All respondents agree that they like to use e-readers. After all, it has portability because it is easy to carry anywhere. It results from a trim and thin e-reader configuration that makes it easier for users to move it anywhere and anytime. The agreement of all

respondents on this statement indicates that the nature of portability is the main advantage of the e-reader, which is the most preferred by e-reader users.

3) Visual aesthetic

An attractive cover display is often the main attraction of printed books in attracting readers to make purchases. With a gorgeous cover, a printed book can not only be enjoyed by its contents but can also be used as an indoor display. However, because it has a gadget display, the e-reader does not present visual aesthetic value like a printed book.

Table 4. Respondent's responses regarding the visual aesthetics of the e-Reader

Statement	A	N	DA
"I don't like using an e-reader because it doesn't have an attractive cover like a printed book"	13 %	17 %	69 %
"I don't like using e-reader devices because the visuals are unattractive"	2 %	14 %	84 %

Source: Excel Data Processing, 2022

Although most respondents did not have a problem with the absence of an attractive cover on the e-reader, many still thought that this was a shortcoming that caused their displeasure in using the e-reader. The number of respondents who responded negatively to this concentration was more than the previous. In the indicators of understanding or understanding, where e-reader users compare their experiences between reading in e-readers and printed books, some respondents still cannot accept the absence of an attractive cover on a reading medium. The idea created by printed books where each reading title will be interesting if it has a gorgeous body is still not entirely broken by e-readers. Even so, the number of respondents who do not have a problem with this is still more. In addition, most respondents still stated that they did not find the visual e-reader unattractive in statements representing assessment or evaluation indicators and still enjoyed using it.

From the two words above, most respondents still think there is no problem with the visuals presented by the e-reader, which means that the display on the e-reader is not bad and is already good according to gadgets in general. However, e-readers have a substantial drawback compared to printed books, namely the loss of unique and attractive covers that make printed books look more beautiful.

4) Olfactory sensation

Few readers say that the smell of paper on a book, especially a new one, often satisfies them while reading a book. With an e-reader, the user will not be able to enjoy the fragrant sensation given by the sheet of paper, considering that the sheet of writing itself is not in the e-reader.

Table 5. Respondent's responses to the sense of smell on the e-Reader

Statement	A	N	DA
"I don't like using an e-reader device because it doesn't have a distinctive smell like a printed book"	14 %	19 %	67 %
"I don't like using e-reader devices because they don't satisfy my sense of smell"	9 %	14 %	76 %

Source: Excel Data Processing, 2022

No different from visual aesthetics, although most respondents do not have a problem with the loss of the distinctive smell of paper sheets on e-readers. But several respondents agree that they are not happy to use e-readers because they do not have a distinct smell like printed books. In the indicators of understanding or understanding, where e-reader users compare their experiences between reading in e-readers and printed books, some of the respondents still cannot accept the absence of the distinctive smell of books in a reading medium. Even so, the number of respondents who do not have a problem with this is still more. Most respondents stated that they did not consider e-readers unsatisfactory regarding olfactory sensation in statements representing assessment or evaluation indicators. Compared to printed books, e-readers have a disadvantage in losing the distinctive scent of sheets of paper that readers usually enjoy when reading printed books, affecting some e-reader users (Ozuem et al., 2019; Varnes, 2020). However, this does not

prevent users from using the e-reader because most respondents stated that they had no problem with the olfactory sensation of the e-reader and did not feel the smell dissatisfaction.

5) The Feelings when reading

In previous studies, many readers stated that they did not feel like they were reading when using reading media other than printed books (Baron, 2021). Many readers are still fixated on the idea and perception that reading activities are identical to printed books, so they cannot enjoy reading media other than books containing sheets of paper (Kucirkova, Flewitt, 2022).

Table 6. Respondent's responses to the feeling when reading on an E-Reader

Statement	A	N	DA
"I don't like using an e-reader because the metallic texture of the e-reader makes me feel like I'm not reading"	4 %	5 %	92 %
"I don't like using e-readers because there is no turning paper activity that makes me feel like I'm not reading"	8 %	11 %	81 %
"I don't like using an e-reader because it doesn't feel like reading a book"	4 %	9 %	87 %

Source: Excel Data Processing, 2022

Most respondents did not have problems with metal textures and the absence of the activity of turning the paper on the e-reader, which is usually found in printed books. The indicator of understanding or understanding, where e-reader users compare their experiences between reading in e-readers and printed books, most respondents are not stuck with perceptions and stereotypes that should be carried out reading activities on printed books. Even in the conclusion statement, the respondent gave an assessment or evaluation that the respondent had no problems using an e-reader and considered that reading on an e-reader still felt like a regular reading activity. Because although it has several shortcomings that cannot compete with printed books, such as the visual aesthetics on the cover, the distinctive olfactory sensation, and the sensation of turning pages of paper, respondents still enjoy reading activities on the e-reader.

b. Usability

The statement items will be divided into four specific concentrations discussing the Usability variable. The four concentrations are; features, navigation, responsiveness, performance, and benefits (Nurshuhada et al., 2019).

1) Feature

The diversity of elements is one of the essential things that technology or gadget manufacturers must pay attention to improve. E-readers must be able to provide the features needed by digital book readers. The excellent quality of a gadget must be easily understood by its users so that there is no confusion when using it (Tovstiadi et al., 2018).

Table 7. Respondent's responses to the e-Reader feature

Statement	A	N	DA
"The features of the e-reader are easy to understand"	89 %	11 %	-
"The features of the e-reader are easy to use"	92 %	6 %	2 %
"Features in the e-reader are easy to remember"	92 %	8 %	-
"A lot of writing features on e-readers that are not in accordance with their functions"	6 %	13 %	82 %
"The placement of the buttons on the e-reader is inappropriate, so there are often wrong clicks"	13 %	8 %	79 %
"The price for the e-reader is in accordance with the features obtained"	93 %	7 %	1 %

Source: Excel Data Processing, 2022

The majority of respondents agree that the features of the e-reader are not only easy to use and understand but also suitable for the price. At this concentration, the part that needs further attention is the placement of buttons on the e-reader, which are placed in inappropriate places, causing some e-reader users to click wrongly often.

2) Navigation

Navigation on a website or gadget is used as a guide for users to take full advantage of the features on the website or device. Poor navigation will confuse users, which gadget manufacturers should avoid (Margolin et al., 2018).

Table 8. Respondent's responses regarding e-Reader navigation

Statement	A	N	DA
"Navigation on e-reader devices is easy to understand"	90 %	8 %	2 %
"The navigation in the product description does not match what is on the e-reader, so errors often occur"	3 %	12 %	86 %
"Navigation on the e-reader worked well as expected"	95 %	5 %	1 %

Source: Excel Data Processing, 2022

Most respondents agree that the navigation on the e-reader device is easy to understand and does not cause errors. Statements with the lowest points are statements about navigation in product descriptions that do not correspond to reality and often mislead e-reader users. However, we can see that only a small number of respondents stated this, and the rest still considered navigating the product description difficult according to the reality

3) Responsiveness

The responsiveness of a gadget can be seen in how quickly the device completes the task the user wants (Oakes, 2018).

Table 9. Respondent's responses regarding e-Reader responsiveness

Statement	A	N	DA
"Searching pages on the e-reader did not meet my expectations because it took a long time"	25 %	25 %	50 %
"Annotating the e-reader is what I expected because it doesn't take a long time"	72 %	20 %	8 %
"Buying an e-book on an e-reader didn't meet my expectations because it took a long time"	7 %	7 %	87 %
"Moving the e-book data to the e-reader is as expected because it doesn't take a long time"	75 %	8 %	17 %
"The responsiveness of the e-reader worked well as expected"	84 %	12 %	4 %

Source: Excel Data Processing, 2022

Many of the above statements have mixed answers. The statement with the most positive responses is a statement regarding the transfer of e-book data to an e-reader which takes a long time. The majority of respondents do not agree with the statement. The process of buying e-books and the annotation process also had a positive response from most respondents. However, not a few respondents also answered with an adverse reaction or were hesitant to choose the neutral option. Statements with the most negative responses were statements regarding page searches on e-readers which took a long time. A quarter of respondents answered agree, and 25 % were undecided or responded neutrally. This statement has the most negative responses on the concentration of e-reader responsiveness and all statements in the questionnaire, both on the Perception and Usability variables. It shows that the search for pages on the old e-reader is a weakness of the e-reader device that most users experience.

However, most respondents agree that the responsiveness of the e-reader works well, as expected. It shows that the weaknesses possessed by e-readers in terms of responsiveness do not interfere with users when doing reading activities.

4) Performance and benefits

Performance and benefits go into the overall rating of the gadget.

The majority of respondents agree that the performance of the e-reader device has worked well according to their expectations. Respondents also stated that the benefits provided followed

the product description and output or money spent. It shows that even though it has some shortcomings, the overall usability of the e-reader still satisfies its users.

Table 10. Respondent's responses regarding the version and usefulness of E-Reader

Statement	A	N	DA
"The engine performance of the e-reader device works well as expected"	96 %	3 %	1 %
"The benefits are in accordance with the product description of the e-reader device"	99 %	1 %	-
"The price for the e-reader device is in accordance with the benefits obtained"	94 %	5 %	-

Source: Excel Data Processing, 2022

c. E-Reader user satisfaction
The Consumer Satisfaction variable in this study has been represented by the statements in the Perception and Usability variables. So can determine consumer satisfaction based on respondents' responses regarding the perception and usability of the e-reader.

In addition to assessing the stereotypes and perceptions felt by e-reader users when carrying out reading activities, the statements on the Perception variable also consider e-reader users' satisfaction effectively. How are users' emotions and moods when reading activities on the e-reader? Suppose the respondent gives an upbeat assessment of the statements of the Perception variable. In that case, it will automatically indicate that the respondent is not bothered by destructive perceptions about the e-reader and is still happy to use it. It follows the theory of affective consumer satisfaction, which states that if the emotions and moods of consumers are positive, it can note that the product has met one of the indicators of consumer satisfaction (Srirahayu et al., 2021). In the answers given by respondents to the statements in the Perception variable, precisely in Tables 8 to 12, we can see that although a small number of respondents have negative responses, these statements are filled with positive responses. Respondents have no problem with stereotypes and old perceptions about reading activities that e-readers cannot present. Respondents gladly accept e-readers as a reading medium. It can conclude that although it has some drawbacks, e-reader satisfies their users effectively.

While the statements on the Usability variable, in addition to assessing technology performance on e-readers, also consider user satisfaction cognitively. The comments in the Usability variable are designed to evaluate the usability of devices related to the theory of cognitive indicators of consumer satisfaction. In the approach used, if consumers have a positive impression of product performance and the suitability of product benefits with product descriptions and output/money spent, the product can be stated to have met cognitive consumer satisfaction (Bao et al., 2018). In Tables 13 to 16, most respondents agree that the usability of the e-reader has good performance, both in terms of features, navigation, and responsiveness. Although there were some negative answers to the statement regarding responsiveness, in the end, respondents still concluded that these deficiencies did not affect the overall responsiveness of the e-reader. Respondents are still satisfied with what is presented by the e-reader. It can be supposed that although it has some drawbacks, e-readers satisfy users not only effectively but also cognitively.

3. Results
Respondents in this study were dominated by Gen Z (age 10-25 years) and Gen Y/Millennial (age 26-40 years).

Table 11. Characteristics of the respondent's year of birth

Year of birth	Frekuensi	Percentage
1965–1980	2	2 %
1981–1996	61	46 %
1997–2012	69	52 %
Total	132	100 %

Source: Excel Data Processing, 2022

The majority of respondents use Amazon Kindle as their e-reader, where 67 % of respondents stated using Amazon Kindle devices. Onyx Boox is ranked second as the device most used by respondents. Some respondents use two or more e-readers at once.

Table 12. Characteristics of the respondent's e-Reader

E-Reader	Frekuensi	Persentase
Amazon Kindle	89	67 %
Onyx Boox	36	27 %
Kobo	3	2 %
iPad	1	1 %
Amazon Kindle and Onyx Boox	1	1 %
Moaan Inkpalm 5 Mini and Likebook p78	1	1 %
I have more than 5 brands of e-readers	1	1 %
Total	132	100 %

Source: Excel Data Processing, 2022

The answers collected from the respondents are processed using SPSS Software. The Correlation Coefficient test shows that the Perception and Usability variables have a strong relationship with the Consumer Satisfaction variable (Y).

Table 13. Correlation coefficient

Variable	*Pearson Correlation*	Keterangan
Perception (X_1)	0.697	Strong
Usability (X_2)	0.722	Strong

Source: Excel Data Processing, 2022

According to the interpretation guideline for the correlation coefficient value formulated by Sugiyono, a correlation can be stated to have a strong relationship if the weight ranges from 0.600 – 0.799 (Sugiyono, 2021). The Perception and Usability variables' values range, so we can say that these two variables strongly correlate with the Consumer Satisfaction variable.

To state that the independent variable affects the dependent variable on the t-test, the significant value of the independent variable must be less than 0.05.

Table 14. T-test

Variabel	t_{hitung}	Sig.
(Constant)	1.347	.181
Persepsi (X_1)	4.438	.000
Usability (X_2)	5.333	.000

Source: Excel Data Processing, 2022

The Perception and Usability variable's significance value is less than 0.05. Therefore, it can conclude that the Perception and Usability variables partially affect the Consumer Satisfaction variable.

Not much different from the t-test, to state that the two independent variables simultaneously affect the dependent variable in the F-test, the significant value must be less than 0.05.

Table 15. F-test

Model		df	F	Sig.
1	Regression	2	74.088	.000[b]
	Residual	98		
	Total	100		

Source: Excel Data Processing, 2022

A significant value smaller than 0.05 shows that the Perception and Usability variables have a combined effect on the Consumer Satisfaction variable.

While in the Coefficient of Determination test, it is known that the R Square value is 0.602.

The effect of perception and usability on consumer satisfaction is 60.2 %. In contrast, the remaining 39.8 % is influenced by other variables not examined in this study.

Table 16. Coefficient of determination (Source: Excel Data Processing, 2022)

Model	R	R Square	Adjusted R Square
1	.776a	.602	.594

4. Conclusion

Based on the discussion above, it can conclude that The Perception variable has a strong correlation and has a positive effect on the Consumer Satisfaction variable. Likewise, the Usability variable strongly correlates to and positively affects the Consumer Satisfaction variable. Therefore, perception and Usability variables significantly influence the Consumer Satisfaction variable. Perception and Usability variables together influence the Consumer Satisfaction variable of 60.2 %. At the same time, the remaining 39.8 % is influenced by other variables not examined in this study. The nature of portability is stated as the most preferred advantage of the respondents. All respondents (100 %) agree that the easy-to-carry nature of the e-reader makes them happy to use the e-reader.

Searching pages that take a long time is the weakness most frequently experienced by respondents. A quarter of respondents (25 %) agree that searching pages on an e-reader takes a long time. Even so, the evaluation of the performance and responsiveness of e-readers still received positive answers can conclude that long page searches do not affect e-reader user satisfaction. The results of respondents' statements in this study indicate that e-reader users in Indonesia do not have problems with stereotypes and old perceptions about reading activities that e-readers cannot present. The absence of a distinctive scent, attractive cover, page-turning activity, and many other things closely related to printed books did not eliminate the pleasure of respondents when using an e-reader. The majority of respondents also agree that the usability of the e-reader already has good performance, both in terms of features, navigation, and responsiveness. Although e-readers have several aspects that need to be improved and cannot be presented, e-reader users in Indonesia are not bothered by these things. E-reader users still feel happy and satisfied when doing reading activities using e-readers.

References

Bailey, 2019 – *Bailey, G.* (2019). Bridging the gap between the digital and print reading experience. *International Journal of Mobile Human Computer Interaction (IJMHCI)*. 11(4): 16-30. DOI: https://doi.org/10.4018/IJMHCI.2019100102

Bao et al., 2018 – *Bao, S., Kuboki, R., Iijima, R., Minagawa, H., Yamanaka, K., Mizuhiki, T.* (2018). Printed Book or E-book, which is better? An investigation using Manga and magazine. *International Journal of Affective Engineering*. *advpub*, IJAE-D-17-00038. DOI: https://doi.org/ 10.5057/ijae.IJAE-D-17-00038

Baron, 2021 – *Baron, N.S.* (2021). How we read now: strategic choices for print, screen, and audio. Oxford University Press.

Behler, Lush, 2010 – *Behler, A., Lush, B.* (2010). Are you ready for e-readers? *The Reference Librarian*. 52(1-2): 75-87. DOI: https://doi.org/10.1080/02763877.2011.523261

Bruss, Allmang, 2010 – *Bruss, S.M., Allmang, N.* (2010). Developing and Implementing a digital media device lending program. *NIST*. [Electronic resource]. URL: https://www.nist.gov/ publications/ developing-and-implementing-digital-media-device-lending-program

Cambridge..., 2021 – *Cambridge University Press*. (2021). E-reader. In: *Cambridge Learner's Dictionary*. Cambridge University Press. [Electronic resource]. URL: https://dictionary. cambridge.org/

Canziba, 2018 – *Canziba, E.* (2018). Hands-On UX Design for Developers: Design, prototype, and implement compelling user experiences from scratch. Packt Publishing Ltd.

Creswell, Creswell, 2018 – *Creswell, J.W., Creswell, J.D.* (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. SAGE Publications.

Fernandez, 2020 – *Fernandez, P.* (2020). Books online: E-books, e-paper, and e-readers. *Library Hi Tech News.* 37(4): 19-22. DOI: https://doi.org/10.1108/LHTN-01-2020-0009

Gaspersz, 2018 – *Gaspersz, V.* (2018). Manajemen kualitas dalam industri jasa. Gramedia Pustaka Utama.

Hancock et al., 2016 – *Hancock, G.M., Schmidt-Daly, T.N., Fanfarelli, J., Wolfe, J.L., Szalma, J.L.* (2016). Is E-Reader technology killing or kindling the reading experience? *Ergonomics in Design.* 24(1): 25-30. DOI: https://doi.org/10.1177/1064804615611269

ISO, 1998 – ISO. (1998). ISO 9241-11:1998 Ergonomic requirements for office work with visual display terminals (VDTs)—Part 11: Guidance on usability. *ISO.* [Electronic resource]. URL: https://www.iso.org/cms/render/live/en/sites/isoorg/contents/data/standard/01/68/16883.html

Jamaludin et al., 2020 – *Jamaludin, J., Purba, R.A., Effendy, F., Muttaqin, M., Raynonto, M.Y., Chamidah, D., Rahman, M.A., Simarmata, J., Abdillah, L.A., Masrul, M., AB, M.A., Yanti, Y., Sinambela, M., Puspita, R.* (2020). *Tren Teknologi Masa Depan.* Yayasan Kita Menulis.

Jung et al., 2012 – *Jung, J., Chan-Olmsted, S., Park, B., Kim, Y.* (2012). Factors affecting e-book reader awareness, interest, and intention to use. *New Media & Society.* 14(2): 204-224. DOI: https://doi.org/10.1177/1461444811410407

Kang et al., 2021 – *Kang, Q., Lu, J., Xu, J.* (2021). Is e-reading environmentally more sustainable than conventional reading? Evidence from a systematic literature review. *Library & Information Science Research.* 43(3): 101105. DOI: https://doi.org/10.1016/j.lisr.2021.101105

Kucirkova, Flewitt, 2022 – *Kucirkova, N., Flewitt, R.* (2022). Understanding parents' conflicting beliefs about children's digital book reading. *Journal of Early Childhood Literacy.* 22(2): 157-181. DOI: https://doi.org/10.1177/1468798420930361

Margolin et al., 2018 – *Margolin, S.J., Snyder, N., Thamboo, P.* (2018). How should I use my e-reader? an exploration of the circumstances under which electronic presentation of text results in good comprehension. *Mind, Brain, and Education.* 12(1): 39-48. DOI: https://doi.org/10.1111/mbe.12167

May, 2009 – *May, M.* (2009). Sensation and perception. Infobase Publishing.

Moore, 2009 – *Moore, L.M.* (2009). At Your Leisure: Assessing Ebook Reader Functionality and Interactivity. Master of Science. University College London. [Electronic resource]. URL: https://uclic.ucl.ac.uk/content/2-study/4-current-taught-course/1-distinction-projects/9-09/2009-moore.pdf

Nasrullah, 2022 – *Nasrullah, R.* (2022). Teori dan Riset Media Siber (Cybermedia). Prenada Media.

Nurshuhada et al., 2019 – *Nurshuhada, A., Yusop, R.O.M., Azmi, A., Ismail, S.A., Sarkan, H.M., Kama, N.* (2019). Enhancing performance aspect in usability guidelines for mobile web application. *2019 6th International Conference on Research and Innovation in Information Systems (ICRIIS).* 1–6. DOI: https://doi.org/10.1109/ICRIIS48246.2019.9073617

Oakes, 2018 – *Oakes, J.R.H.* (2018). Student and instructor use and perspectives on the Engage e-reader and associated e-books. Colorado State University. [Electronic resource]. URL: https://mountainscholar.org/handle/10217/197311

Ozuem et al., 2019 – *Ozuem, W., Howell, K.E., Lancaster, G.* (2019). The impact of digital books on marketing communications. *Journal of Retailing and Consumer Services.* 50: 131-137. DOI: https://doi.org/10.1016/j.jretconser.2019.02.015

Pattuelli, Rabina, 2010 – *Pattuelli, M.C., Rabina, D.* (2010). Forms, effects, function: LIS students' attitudes towards portable e-book readers. *Aslib Proceedings.* 62(3): 228-244. DOI: https://doi.org/10.1108/00012531011046880

Pew Research Center, 2015 – *Pew Research Center.* (2015). Smartphones, Tablets Grew in Recent Years; Other Devices Declined or Stayed Flat. *Pew Research Center: Internet, Science & Tech.* [Electronic resource]. URL: https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2015/10/PI_2015-10-29_device-ownership_0-01.png

Picodi, 2019 – Picodi. (2019). Pembelian Buku di Indonesia (dan di seluruh Dunia). Mencari penawaran. [Electronic resource]. URL: https://www.picodi.com/id/mencari-penawaran/pembelian-buku-di-indonesia-dan-di-seluruh-dunia

Price, 2019 – *Price, L.* (2019). What we talk about when we talk about books: the history and future of reading. Hachette UK.

Purcell, 2011 – *Purcell, K.* (2011). E-reader Ownership Doubles in Six Months: Adoption rate of e-readers surges ahead of tablet computers. Pew Research Center's Internet & American Life Project. [Electronic resource]. URL: https://www.ris.org/uploadi/editor/1309484017PIP_ eReader_Tablet.pdf

Rahadi, 2014 – *Rahadi, D.R.* (2014). Pengukuran usability sistem menggunakan use questionnaire pada aplikasi android. *JSI: Jurnal Sistem Informasi (E-Journal).* 6(1): Article 1. https://doi.org/10.36706/jsi.v6i1.772

Rahmat, 2018 – *Rahmat, P.S.* (2018). Psikologi pendidikan. Bumi Aksara.

Richardson, Mahmood, 2012 – *Richardson, J.V., Mahmood, K.* (2012). eBook readers: User satisfaction and usability issues. *Library Hi Tech.* 30(1): 170-185. DOI: https://doi.org/10.1108/07378831211213283

Rodzvilla, 2009 – *Rodzvilla, J.* (2009). The portable e-book: Issues with e-book reading devices in the library. *Serials.* 22(0). DOI: https://doi.org/10.1629/22S6

Rofi'ah, 2017 – *Rofi'ah, S.* (2017). Persepsi Pendidik PAI tentang Pembelajaran Multikultural di Madrasah Ibtidaiyah Berbasis Pesantren. *Muallimuna : Jurnal Madrasah Ibtidaiyah.* 2(2): Article 2. DOI: https://doi.org/10.31602/muallimuna.v2i2.766

Schwabe et al., 2021 – *Schwabe, A., Brandl, L., Boomgaarden, H.G., Stocker, G.* (2021). Experiencing literature on the e-reader: The effects of reading narrative texts on screen. *Journal of Research in Reading.* 44(2): 319-338. DOI: https://doi.org/10.1111/1467-9817.12337

Sehn, Fragoso, 2015 – *Sehn, T.C.M., Fragoso, S.* (2015). The synergy between eBooks and printed books in Brazil. *Online Information Review.* 39(3): 401-415. DOI: https://doi.org/10.1108/OIR-01-2015-0006

Srirahayu et al., 2021 – *Srirahayu, D.P., Nurpratama, M.R., Handriana, T., Hartini, S.* (2021). Effect of gender, social influence, and emotional factors in usage of e-Books by Generation Z in Indonesia. *Digital Library Perspectives.* 38(3): 263-282. DOI: https://doi.org/10.1108/DLP-12-2020-0129

Stone, 2008 – *Stone, N.* (2008). The e-reader industry: Replacing the book or enhancing the reader experience? *Design of Elctronic Text.* 1(1): 1-5.

Tjiptono, 2020 – *Tjiptono, F.* (2020). Strategi pemasaran: Prinsip & penerapan. Andi Offset.

Tovstiadi et al., 2018 – *Tovstiadi, E., Tingle, N., Wiersma, G.* (2018). Academic E-book usability from the student's perspective. *Evidence Based Library and Information Practice.* 13(4): Article 4. DOI: https://doi.org/10.18438/eblip29457

Varnes, 2020 – *Varnes, A.* (2020). Study of adolescent choice and use of e-books versus print books. Cmaster, University of Southern Queensland. [Electronic resource]. URL: https://eprints.usq.edu.au/41827/

Weichbroth, 2020 – *Weichbroth, P.* (2020). Usability of mobile applications: a systematic literature study. *IEEE Access.* 8: 55563-55577. DOI: https://doi.org/10.1109/ACCESS.2020. 2981892

Wu et al., 2021 – *Wu, D., Xu, J. (David), Abdinnour, S.* (2021). Tablets for problem-solving through a flow theory: The impact of navigation and visual appearance on perceived performance and efficiency. *Information Technology & People.* 35(1): 142-164. DOI: https://doi.org/10.1108/ITP-07-2019-0323