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A Review of Offline and Online Brand Presence Measures

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Declaration

I declare that this thesis presents work carried out by myself and does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; to the best of my knowledge it does not contain any materials previously published or written by another person except where due reference is made in the text; and all substantive contributions by others to the work presented, including jointly authored publications, is clearly acknowledged.

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Abstract

Physical availability (i.e., making a brand easy to find and buy for as many consumers as possible) is one of the key aspects for sustainable brand growth (Sharp 2010b). There are three components of physical availability: presence (i.e., the brand being present in a wide range of buying situations), prominence (i.e., brand being easy to find in various shopping environments) and portfolio (i.e., concerns whether the brand offers something relevant for various buying situations or occasions) (Nenycz-Thiel et al. 2016, 2017). This thesis focuses on the presence element of physical availability justified by the fact that presence is a prerequisite to ascertaining the prominence and portfolio and that it is easier to track and measure.

The marketing literature has extensively researched physical availability and brand presence. However, it has referred to it with many different concepts and measures such as market coverage, retail distribution, push and pull marketing, and depth and breadth distribution (Ailawadi & Farris 2017; Olver & Farris 1989). A lack of consensus in conceptualisation and measurement of focal concepts of theoretical and managerial relevance can cause confusion and misunderstanding (Aaker 1996a; Ailawadi & Farris 2017; Reibstein & Farris 1995). The issue is particularly noticeable in research on brand presence in online domains, which is primarily confined to industry sources (Boyle n.d.; Chen 2021; Spence 2020; Swift 2020; York 2020), rather than scholarly academic research. Moreover, there is limited information on how to conceptualise and evaluate brand presence in specific *online domains*, such as e-commerce (i.e., buying and selling products or services over the Internet (Tokareva 2018)), m-commerce (i.e., buying and selling through a mobile device (Tokareva 2018)) and social commerce (i.e., using social networking sites to promote and sell goods and services (Chaffey 2019)). The lack of guidance on how to understand and appraise physical availability across these growing and ever changing aspects creates further confusion, expanding the divide between marketing theory and practice.

Past research has presented frameworks (Ailawadi & Farris 2017) or lists (Farris et al. 2016; Farris et al. 2010) of existing definitions and measures of physical availability, albeit not necessarily focusing on the brand presence element of it. There is also no evidence to suggest the information reported in these studies was gathered through a systematic

review of marketing literature or based on a direct appraisal of managers' views. Additionally, these studies did not delineate and compare the offline and online domains.

To address these issues, this thesis includes two studies:

Study 1 is a systematic literature review (SLR) conducted to identify existing offline and online brand presence measures. A SLR is a scientific, robust and unbiased approach to gather sources and understand a field of research (Aria & Cuccurullo 2017; Fetscherin & Heinrich 2015; Tranfield et al. 2003). A total of 172 bibliometric sources (including journal articles, conference papers and industry publications) was examined to create an inventory of offline and online brand presence measures, including a list of equivalent measures (i.e., measures that can comfortably be used to understand brand presence in online and offline domains). The consolidated inventory of terms, definitions and measures included 12 offline brand presence measures and 21 online brand presence measures, four of which overlapped.

Study 2 is based on the results of an online survey targeting over 50 marketing practitioners from different consumer good categories and countries. The survey examined respondents' awareness, use and perceived level of usefulness of the measures identified in Study 1. The results indicated high levels of managerial awareness for all offline and online presence measures; however, comparatively respondents used more offline brand presence measures than online measures. Respondents also rated all brand presence measures identified as highly useful, with frequency of monitoring being higher for the online measures and great reliance of third-party services and tools (e.g., Nielsen market research services and Google analytics). Another important finding from Study 2 was the identification of an additional seven offline and two online measures, which did not emerge in Study 1.

Combined, the outcomes of these two studies yield the following implications for theory and practice. The inventory of offline and online brand presence measures this thesis created can assist academics and practitioners to find, evaluate and compare indicators of this important driver of brand growth 'all in one place'. Besides forming an epistemological base for future research endeavours on the topic, the list can guide managers to

understand and track brand presence in different domains, adding confidence to multi-channel (interacting with customers through different channels) and omni-channel (a cohesive shopping experience across all the brand's sales touchpoints) practices (Ailawadi & Farris 2017; Herhausen et al. 2015; Neslin et al. 2006; Verhoef et al. 2015).

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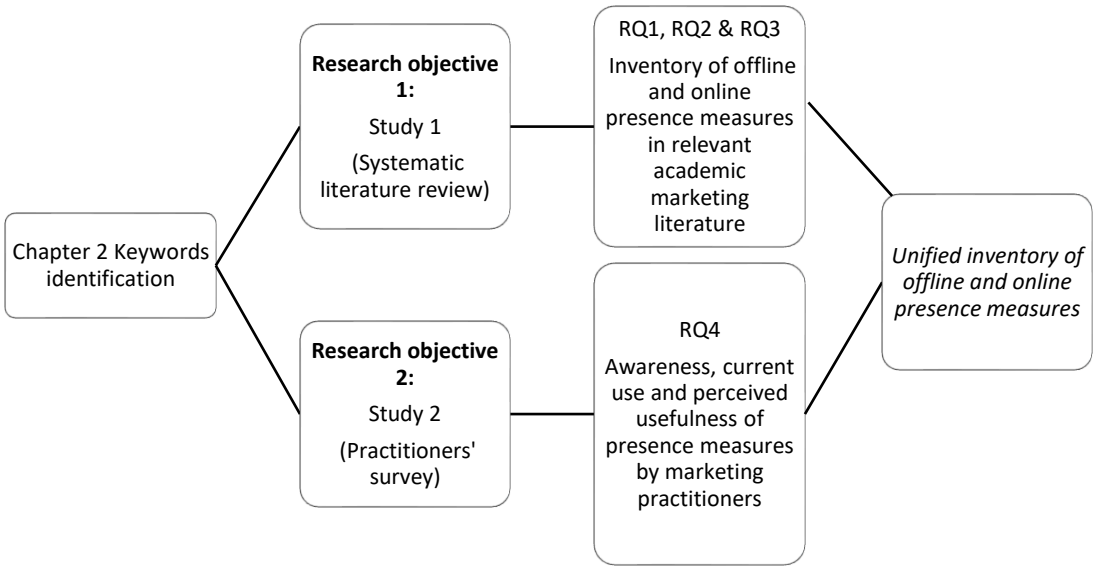
Chapter 1

1. Thesis overview and conceptual background

1.1 Chapter overview

This chapter begins with defining the focal concept examined in this thesis: ***physical availability***. Specifically, Section 1.2 defines physical availability and clarifies its importance in relation to brand management strategies and brand growth. Section 1.3 illustrates the three components of physical availability and presents a justification for concentrating on ***brand presence***. Next, Section 1.4 identifies the gaps in marketing academic literature and practice linked to the brand presence element of physical availability in offline and online domains, introducing the key research objectives and questions of this thesis. In particular, this section links brand presence to other relevant marketing concepts such as the 'place' element of the marketing mix and the broad notion of 'distribution', revealing important issues in the literature that need addressing. Section 1.5 provides an overview of the methods used in the thesis, which include a systematic literature review (Study 1) and a practitioner survey (Study 2). Section 1.6 summarises the key findings of this thesis and Section 1.7 summarises the resulting theoretical and managerial implications. Finally, Section 1.8 outlines the thesis structure. Table 1 (below) shows an overview of research objectives, research questions and methods.

Figure 1: Study 1 and 2 methods



1.2 Physical availability and its importance

According to Sharp (2010a), ***physical availability*** can be defined as *"making a brand as easy to notice and buy as possible, for as many consumers as possible, across as wide a range of potential buying situations as possible"* (p.196). That is, physical availability entails ascertaining under what situations and conditions brands become easy to find and buy. It is an important marketing concept of theoretical relevance, which also yields significant practical (managerial) relevance.

The former CEO of soft drink brand Coca Cola, Robert Woodruff said the brand should be at 'arm's reach of desire' (Skapinker 2015). Phrases like 'arm's reach of desire' harkens to physical availability and the tactics that can be used to help consumers easily notice and buy brands (Business Case Studies 2020). For instance, placing products in-front store displays or near checkouts in retail stores (e.g., Walmart and Target), selling through vending machines, partnering with food stores (e.g., pizza shops) and placing products on third party websites (e.g., Walmart online shopping).

A brand that lacks physical availability is less likely to be purchased and this will negatively impact its sales and growth potential (Nenycz-Thiel et al. 2017). Brands need to be present in the relevant stores or locations, easy to access, available on the shelf or showrooms and constantly in stock (Corsten & Gruen 2003; Sharp 2010a; Zinn & Liu 2008). It is also essential to remove any barriers and obstacles to attain consumers attention and enhance purchase probability. According to Zinn and Liu (2008), 32% of customers are likely to purchase a different brand if the preferred brand is not on the shelf and 14% of customers said they would visit another store if the preferred brand was unavailable. This switching behaviour supports the basic premise that "if your brand is not where shoppers are shopping at, you won't be bought" (Nenycz-Thiel et al. 2017, p.1).

Frequent unavailability of products in stores can lead to consumers adapting to alternate buying behaviour to the desired brand (Farris et al. 1989). Indeed, customers are likely to switch between brands and are rarely 100% loyal. Research by Ehrenberg et al. (2004) analysed brand performance for eight leading brands in twelve different packaged consumer goods categories and found that only 12% of customers, on average, were 100%

loyal in a year. To minimise being substituted by another brand and remain competitive, brand managers should also ensure their products are continuously available in stores. Therefore, strong physical availability in-stores makes the decision-making process quicker and simpler (Spenner & Freeman 2012).

Brands with strong physical availability tend to have high repeat purchase rates and are able to influence consumers choices at the time of purchase (Raj 1985; Romaniuk & Sharp 2016). Stores with strong product physical availability will also provide customer confidence to purchase a large quantity of the products for other people and on other occasions, like for parties. Hence, it is crucial for brands to be easy to locate and notice as well as accessible to as many customers and purchasing occasions as possible (Nenycz-Thiel et al. 2016; Sharp & Romaniuk 2016).

Customers usually have some idea of the type of brands available in the category in a store (Kucuk 2008). Brands that are physically available have a greater chance of being part of the purchasing repertoire (Farris et al. 1989; Reibstein & Farris 1995). Actually, most of the purchase volume comes from many occasional buyers who purchase other brands in the category as well (Bennett et al. 2010).

Moreover, physical availability increases the likelihood of a brand being purchased, by influencing what consumers encounter and find when they are actively searching to purchase (Farris et al. 1989). Physical availability markedly affects brand performance measures such as market share, sales and market penetration (Ehrenberg et al. 2004). Therefore, regardless of brand market share size, having strong physical availability plays a critical role in influencing consumer brand choice.

It is worth acknowledging that mental availability is another driver of brand growth in marketing (Romaniuk & Sharp 2016). Mental availability concerns understanding if the consumer thinks of or notices the brand in various buying situations (Alba & Chattopadhyay 1986; Romaniuk 2016; Samuel 2017). In comparison, physical availability considers if the brand is present for consumers at the time of purchasing (Farris et al. 2016; Nenycz-Thiel et al. 2017; Wilbur & Farris 2014). It could be argued that a brand's physical presence might be an important pre-requisite for mental availability. To elaborate, if the brand does not

come to mind or is noticed on the shelf (i.e., mental availability), consumers will not consider it as a purchasing option. It can also be argued that if a product has strong mental availability but is consistently unavailable in stores, mental availability will decline (Sharp & Romaniuk 2016).

1.3 Different components of physical availability and thesis focus (brand presence)

There are three key components to a strong physical availability: *presence*, *prominence* and *portfolio* (Nenycz-Thiel et al. 2016, 2017):

Presence refers to the brand being present in a wide range of buying situations, including the channels, retail outlets and retail formats. For example, consumers can easily find Coca Cola drinks in supermarkets, convenient stores, vending machines and third-party online stores.

Prominence is about the brand being easy to find in various shopping environments. Brands should stand out from clutter within a store, in a shelf or online. For instance, Coca Cola may put its products at eye level on supermarket shelves or have large and captivating displays at store front.

Portfolio (or relevance) concerns whether the brand offers something relevant for various buying situations or occasions. For example, a vending machine containing Coca Cola products may be made available in a busy university walkway near classrooms and in a variety of options, such as in plastic or glass bottles and cans in different sizes.

Each physical availability component has a specific role to help a brand grow. Out of the three key components of physical availability, prominence and portfolio can help complement *brand presence* by enhancing the visibility in the shop, on shelf or online. Research shows packaging of a product influence purchasing decisions and increase brand consideration (Clement 2007; Garber et al. 2000). However, if the product is not present in store, then prominence and portfolio will lose its impact. In contrast, presence is perceived to be the backbone of physical availability and plays a prominent role in holding the other

components together (Nenycz-Thiel et al. 2016). Moreover, managers need to *measure* brand presence before they can measure their prominence and portfolio. This is because if the brand is not present, marketers will struggle to measure if their brand is easy to buy and find (i.e., prominence and portfolio). Indeed, compared to prominence and portfolio measures, presence is easier to keep track of, evaluate and can be measured objectively. Prominence and portfolio often are subjective measures and dependent on consumer behaviour (e.g., like in-store value and product attractiveness) (Sharp 2010a).

The information required to measure brand presence is often common practice and, in some instances, brands already keep a record of this information. For example, most brands measure the number of products sold, average sales and/or number of store visitors. In line with this reasoning, this thesis hinges on the key assumption that to understand and track a brand's physical availability the first step is ascertaining if it is at least present, and when and where consumers buy the category the most (Nenycz-Thiel et al. 2017).

According to Moran (1990), the aim of having brand presence (referred to as physical presence in their paper) is to influence consumers' purchasing habits in a certain setting or relevant situation and facilitate in increasing in-store sales. A 2018 survey found that over 60% of consumers left a physical store without making a purchase because the product was unavailable (Taylor 2018). If consumers cannot find the products they desire, consumers are less willing to visit the retail store again, or could switch brands, leading to loss of sales (Corsten & Gruen 2003; Gruen et al. 2002; Kucuk 2008). It is almost impossible to make a brand available in every channel, store, or market. Particularly, in today's fragmented and multi-channel environment (Romaniuk & Sharp 2016). Additionally, excessive presence can cause cannibalisation among retail stores and could negatively impact overall sales and market share (Ailawadi & Farris 2017; Cleeren et al. 2010). High local competition may also lead to price pressure between stores or chains, reducing supply and ultimately impacting product availability (Ailawadi & Farris 2017; Cleeren et al. 2010). In essence, poor decisions in brand placement can lead to decline in growth and unnecessary costs (Nenycz-Thiel et al. 2016).

Keeping these risks in mind, to optimise brand presence, brand managers need to be able to measure it over time and appraise any possible change, including likely differences between different marketing domains such as offline (traditional brick-and-mortar) and online (e.g., e-commerce and mobile). As this thesis explores, marketing knowledge and practice on brand presence measurement are affected by several limitations that form the research objectives of this thesis, as follows.

1.4 Research objectives and questions

Physical availability has been conceptualised inconsistently in the marketing literature, often overlapping with other general marketing concepts (Ailawadi & Farris 2017; Nenycz-Thiel et al. 2017). This problem also applies to the brand presence element of it, which is the focus on this thesis. Moreover, the lack of consensus surrounding physical availability and brand presence equally affects literature on offline (brick-and-mortar) and online (e-commerce, m-commerce and social commerce) domains. This thesis concentrates on brands linked to tangible goods sold in brick-and-mortar contexts and online through different distribution methods. Brands that are sold only offline or only online and/ or attached to services (e.g., banks) are not considered. Lastly, there is limited research into which brand presence measures (offline and online) marketing practitioners know of, use and find valuable. The following sections expands upon these issues, clarifying the research objectives and questions of this thesis.

1.4.1 Offline brand presence concept and measures

In marketing literature and practice physical availability in offline domains can often be referred to using synonymous terms or other related concepts. For example, it has been considered part of more general marketing tactics such as product distribution, in-store product placement and physical distribution (Oberlo n.d.; Sonntag n.d.), or retail distribution and distribution coverage (Aaker 1996a; Farris et al. 1989; Farris 2004; Reibstein & Farris 1995; Wilbur & Farris 2014). Another generic marketing term similar to physical availability is placement logistics, which refers to the activities that brand managers undertake to make products available to consumers and to keep track of stock (Armstrong & Kotler 2012).

Physical availability also shares some similar underlying conceptual links with 'push' marketing tactics. Olver and Farris (1989) delineated 'push' and 'pull' marketing. This distinction helps understand the relationship between brand distribution and market share. Specifically, the 'push' element means brand managers will enact strategies aimed at 'pushing' their products towards consumers; hence, it is evaluated by the retail distribution and in-store attractiveness (Farris 2004; Olver & Farris 1989). In contrast, the 'pull' element concentrates on creating consumer demand via marketing communications, and primarily considers consumers' loyalty, brand preference and willingness to compromise (Olver & Farris 1989). Arguably, the push element is more closely related to the notion of physical availability, although both concepts revolve around ensuring that brands are easy to notice and to buy in the retail environment.

In addition to the above, the marketing mix framework, or the 4Ps of marketing, is a fundamental framework of which physical availability is a component. Specifically, the framework consists of four elements: product, price, place and promotion (Armstrong & Kotler 2012; Borden 1964). The 'place' element is defined as how the brand and its products are distributed to ensure that it is accessible to as many buyers as possible (Armstrong & Kotler 2012; Yoo et al. 2000). In essence, 'place' looks at where brand managers should sell their products (i.e., which channels and stores), how to deliver the products to consumers (e.g., placement on the shelf and logistics) and how consumers can reach the brand (Armstrong & Kotler 2012). Additionally, 'place' implies that brands need to be easily available to increase the likelihood of being purchased. Since many authors agree that 'place' is synonymous to 'distribution' (Borden 1964; McCarthy 1981; McCarthy et al. 1997), it can be argued that there is a logical connection between the 'place' element of the 4Ps framework and physical availability.

There are also examples of authors using similar terms to convey the same concept of distribution. For instance, Reibstein and Farris (1995), used retail distribution and distribution coverage interchangeably to describe the relationship with market share. Similarly, some authors note that physical availability can be referred to as retail distribution, distribution, market coverage or breadth and depth of distribution (Nenycz-Thiel et al. 2016, 2017; Sharp 2010b).

Existing studies portray some well-understood measures of the presence component of physical availability in brick-and-mortar stores. For instance, examining total product sales volume in an outlet, percentage of stores that stock the product and share of shelf space (Aaker 1996a; Ailawadi & Farris 2017; Farris et al. 2016; Reibstein & Farris 1995; Waller et al. 2010). Since a few different brand presence measures are documented by different authors, it would be beneficial to collate all the brand presence measures in one place. This could bring clarity to existing knowledge and make it easier to build on future research.

Notably, Ailawadi and Farris (2017) has presented a basic framework for managing distribution and compiled a general list of offline and online physical availability measures. Yet, the authors do not specifically discuss brand presence in detail and there is no evidence to suggest their list was based on a systematic review of academic and industry practices. This could have introduced significant researchers' bias. Furthermore, books by Farris et al. (2016); Farris et al. (2010) recorded many marketing metrics including, customer profitability, financial and some physical availability measures. The authors discuss the strengths, weaknesses and how to apply the measures. However, they did not return an exhaustive list, nor did they compare the offline and online domains. Moreover, the authors list did not include additional information such as the measure's relevance, comparison against other measures, measure awareness, usage, frequency of usage, perceived usefulness, and extent of outsourcing. Both teams of authors Ailawadi and Farris (2017) and Farris et al. (2016); Farris et al. (2010) have considered physical availability and measures like 'breadth and depth distribution' and 'push and pull marketing', which involves prominence and portfolio aspects of physical availability. In contrast, this thesis focuses on the presence aspect. Both academics and brand managers need an evidence-based inventory and critique of measures that can be used to assess brand presence in a more consistent way. Accordingly, the first research objective of this thesis is:

> Research Objective 1: To compile an inventory of measures to assess the presence aspect in physical availability accurately and consistently for both scholars and practitioners.

Attaining this first research objective translates into the following first research question, linked to the traditional offline (brick and mortar) domain:

RQ1: What are the existing measures of offline brand presence?

It also entails considering in greater depth the growing online domains linked to e-commerce, m-commerce and social commerce, as follows.

1.4.2 Online brand presence measures

Brands are not only using offline channels to reach consumers but also embracing online channels to provide consumers more opportunities to access the brand and purchase (Dholakia et al. 2005; Nenycz-Thiel et al. 2017; Sharp 2010a; Smith & Anderson 2016). Like brick and mortar, presence in the online context is defined as the brand being available online (Nenycz-Thiel et al. 2017). Brands diversify their online distribution strategies to gain a wider audience and be as accessible as possible to the consumer (Adelaar et al. 2004; Aldridge et al. 1997). For example, many firms make their brand available through search engines, mobile applications (hereafter apps) and social media. It is forecasted that global online sales will be over $5 trillion dollars by 2022 and this is expected to increase in the next few years (Cramer-Flood 2021). Online shopping not only provides additional brand presence it also offers quick price comparisons looking at multiple stores, greater choice and convenience for consumers (Sharp & Sorensen 2017).

Nonetheless, there is a lag in the understanding of the physical availability in the online context. There is also a lack of delineation between different sub-domains of the online landscape. This thesis will explore in detail three aspects of it: e-commerce, m-commerce and social commerce. Although m-commerce and social commerce are considered subsets of e-commerce, they each have different functions and purposes (Strauss & Frost 2016). Hence, in this thesis they are explored separately to provide greater detail of what approaches and measures can be used for online brand presence.

E-commerce or electronic commerce concerns buying and selling products or services (e.g., retail goods, grocery shopping and food delivery) over the Internet (Tokareva 2018). The primary focus will be on direct selling platforms such as online shops and shopping sections on websites (Chaffey 2019). Some of the ways presence can be enhanced in e-commerce

include branded websites easily available on search engines or being accessible on online marketplaces (e.g., Amazon or eBay) (Strauss & Frost 2016). Brand managers can measure their online presence through metrics such as website views and search engine positioning.

M-commerce or mobile commerce involves buying and selling through a mobile device (Tokareva 2018). It is considered an advancement of e-commerce and is becoming a major channel for online shopping (Mali n.d.; Meola 2020; Strauss & Frost 2016). Consumers can purchase goods online on a web browser via a mobile device, and use mobile applications associated with retail brands selling physical goods. Indeed, branded mobile applications (e.g., the Adidas app or The Iconic app) work as a tool to increase accessibility and allow brands to engage with consumers at any place and at any time (Stocchi et al. 2017; Sultan & Rohm 2005). Examples of how m-commerce presence can be measured include number of brand app downloads and brand app keyword ranking.

Social commerce is defined as using social networking sites such as Facebook, Instagram and Twitter to promote goods and services (Chaffey 2019). With a large audience spending an extensive amount of time on various social media platforms, it is no surprise that marketers are taking advantage of it as a marketing channel (Chaffey 2019). In fact, to increase presence, brands can use approaches like including links or call to action buttons to their online store. Another example is showing the products in an Instagram story with links or swipe up functions to redirect the audience to the online website/ store. To monitor brand presence on social media, measures like social media engagement (e.g., number of likes, shares and clicks), or number of actions of the social media page can be used.

With increasing demand and preference for online shopping companies are applying and trialling these various techniques mentioned above to increase their online brand exposure and sales. Currently there is scattered scientific marketing research about the use of these techniques. This makes it difficult for brand managers to ascertain the most prevalent approaches and measures to be used for their online business.

The literature additionally lacks an inventory presenting the online *equivalent presence measures* to offline presence measures. For brands converting to an online setting, brand managers and academics can consider any equivalent online presence measures that are comparable to offline presence measures. It will facilitate further research on multichannel

(i.e., many channels operating separately) and omnichannel (i.e., integrating offline and online channels together, aiming to provide convenience at all touch points) resource deployment, synergy effect or channel substitution, and revenue optimisation (Neslin et al. 2006; Verhoef et al. 2015). However, the extent to which offline presence measures map onto equivalent online presence measures (or vice versa) is unknown. Accordingly, the second and third research questions are:

RQ2: What are the existing online brand presence measures?

RQ3: What are the online brand presence measures equivalent to the offline brand presence measures?

1.4.3 Brand presence measures in practice

Along with cataloguing existing offline (i.e., in brick and mortar) and online (i.e., e-commerce, m-commerce and social commerce) brand presence measures, and discussing the equivalency between these two domains, it is crucial to understand the practical application of these measures. Therefore, this thesis additionally aims to determine which presence measures are known of and used by marketing managers across different consumer goods brands and countries. The thesis also aims to ascertain the perceived usefulness on these measures. Currently, there is limited/no academic and industry record of these important aspects. To help address this knowledge gap, this thesis seeks to determine which offline and online brand presence measures marketing managers are aware of, use (including the frequency of use and the reliance on external market research services) and the perceived usefulness. The findings will extend the current academic knowledge and narrow the gap with practice on this important marketing aspect. To put more formally, the second research objective of this thesis is:

> Research Objective 2: To compile the offline and online brand presence measures known and used by marketing practitioners, across different consumer goods brands, in different countries.

Attaining this objective involves addressing the following research questions:

RQ4a: What offline and online brand presence measures are brand managers aware of?

RQ4b: What offline and online brand presence measures do brand managers use, and how frequently they use these measures?

RQ4c: To what extent do managers rely on external market research services and/or existing analytical tools to measure offline and online brand presence?

RQ4d: How useful do brand managers find offline and online brand presence measures?

More details of the reasoning behind all research questions and related literature (or industry evidence in lieu of) features in Chapter 2.

1.5 Overview of research methods

This thesis consists of two studies. Study 1 is a systematic literature review (SLR) (including a formal bibliometrics analysis), which was conducted to attain Research Objective 1. Firstly, through a conventional literature review, keywords were identified. These keywords were then entered into Scopus and Web of Science databases in two separate searches (offline and online). This guided on which sources would connote information on brand presence measures of physical availability. Study 2 consisted of an online survey targeting marketing practitioners and brand managers worldwide. The survey was created in Qualtrics, and the data was collected between November and December 2021. The final data (n=51) was analysed using simple descriptive statistics, addressing Research Objective 2 of this thesis.

More details of the methods involved in each study are presented in Chapter 3.

1.6 Summary of key findings

Study 1 (SLR) revealed a list of **12 offline** and of **21 online** presence measures. The inventory created displayed how each measure is defined, calculated, its limitations,

significance of the measure and additionally explained the comparison against other measures. Furthermore, **four equivalent** offline presence measures for online were explained why they were similar. Additional eight offline presence measures were found that could also be used in an online setting. As the thesis notes, online is still a developing area in academia, the study discovered there were more conceptual evidence (i.e., theory based) than empirical evidence (i.e., information from experimentation or practical observation) for online presence measures. As brands transition to online, it can be beneficial to understand any similar or comparable measures.

Study 2 (practitioner survey) established further **seven offline** and **two online** brand presence measures from respondents' responses. While on average respondents' awareness, use, frequency of use and usefulness for offline prompted measures were recorded higher than **online**. Furthermore, most respondents also relied on external marketing service for online and offline measures.

Overall, the findings of this thesis confirm that presence measures are scattered in the marketing literature. Providing an evidence-based inventory in one place of the offline and online brand presence measures offers convenience for academics and practitioners to source the measures and information.

1.7 Overview of the thesis implications

1.7.1 Summary of theoretical implications

Existing literature often refers to the concept of 'physical availability' using a plethora of terms and has returned numerous ways to describe and measure offline brand presence. Moreover, the buoyant growth of online selling (e.g., via web-based technologies, mobile apps and social media) did not result in scholarly work adequately recording how to describe and measure online brand presence. Given these marked inconsistencies in the terms used and the obvious knowledge void, as a contribution to theory, this thesis identifies the various synonymous terms to clarify and minimise the confusion between the way physical availability (especially the brand presence element of it) is assessed. Marketing theory would benefit from an inventory of offline (brick and mortar) and online

physical availability (brand presence) measures. Thereby, this thesis contributes to the marketing literature by creating an empirically-driven inventory of measures for academics and practitioners to assess the brand presence. In this regard, this thesis extends the work by Farris et al. (2016); Farris et al. (2010) and Ailawadi and Farris (2017) which was not based on a systematic literature review and did not include primary research insights targeting brand managers as research participants. The thesis also extends knowledge by documenting the equivalent or corresponding offline and online presence measures. This could be useful for academics as information source in one location and builds on multichannel literature by showing how to optimise online and offline presence. Finally, future researchers can use this thesis as a template to expand into determining the measures of the other two components of physical availability.

1.7.2 Summary of managerial implications

The offline and online inventory provides brand managers confidence and knowledge about presence measures, thereby assisting managers in making better informed executive decisions on the use of the measures. As multichannel and omnichannel shopping becomes more popular, this research will assist managers to effectively assess their online presence. The survey findings and inventory can be used as benchmark vs. specific business goals and competition. Ultimately, it offers guidelines and tools to enhance online physical availability in implementing their business strategies and saves time trialling methods. For managers it will narrow the gap and knowledge about using online presence measures. Although this thesis focused on brand presence measures for consumer goods, the findings can be applied for services industry (e.g., banking).

1.8 Thesis structure

This thesis consists of five chapters. An overview of the main contents of each chapter as follows.

Chapter 2: Keywords identification

Through a standard literature review, this chapter identifies a list of keywords linked to brand presence, the key element of physical availability this thesis focuses on, to inform

Study 1 (SLR) and Study 2 (practitioner survey). In more detail, the chapter begins with examining the offline (brick and mortar) tactics and measures brand managers may use to evaluate brand presence. Following on, the chapter explains the growing trend of online shopping and how brands are evaluating online brand presence. In particular, the approaches and measures, or measurement tools managers might use to increase and assess online brand presence. Accordingly, the chapter justifies the need for Study 2, highlighting the lack of rigorous research capturing marketing practitioners' views on offline and online brand presence. The four research questions are introduced in this chapter, together with a summary of the keywords for Study 1 and Study 2.

Chapter 3: Methods

Chapter 3 provides an overview of the methods used to answer the four research questions. Firstly, this thesis defines systematic literature review (Study 1) and the advantages of using this process. Next, the chapter explains in more detail the steps this thesis undertook in implementing the SLR to discover the presence measures found in literature. Following on, the chapter presents the details the research design and method for the practitioner survey (Study 2). In this regard, Chapter 3 explains that the survey aimed to evaluate practitioners' awareness, use, frequency of use, extent to which external sources were used and perceived usefulness of the presence measures. Lastly, the chapter describes the data analysis approach used to extract and interpret the results.

Chapter 4: Results

First, the chapter presents the findings of Study 1, and provides multiple tables describing the definition, calculations, importance to physical availability or presence, limitations and citations for the offline, online and equivalent physical availability (presence) measures. These results answers RQ1, RQ2 and RQ3. Next, the chapter details the findings of Study 2 with the aim to establish practitioners' awareness, usage and usefulness of the brand presence measures. Descriptive statistics were used to answer RQ4.

Chapter 5: Discussion, implications and conclusions

Chapter 5 concludes the thesis by discussing the implications of the key findings of Study 1 and Study 2, linking back to existing literature the outcomes of this thesis. The chapter also

summarises the theoretical and managerial contributions of this thesis, before acknowledging some limitations and the resulting future research directions.

1.9 Chapter summary

This chapter served as an introduction to this thesis. It clarified that physical availability of brands is a fundamentally important concept in the marketing literature. However, this concept has been conceptualised in various ways with inconsistent measurement approaches. To better understand the physical availability concept and its measurement for both academics and practitioners, this thesis aims to develop an inventory of presence measures via a systematic literature review (Study 1), which delineates and compares the offline and the online domains. This thesis also empirically tests the popularity and usage of these measures with a small sample of marketing managers (Study 2). As this chapter anticipated, the combined findings of these two studies contribute to theory and practice in several ways, thanks to increasing the knowledge on the focal concept of physical availability and its presence measures.

The next chapter is a standard literature review, critically analysing existing literature to identify specific keywords to shape Study 1 and Study 2, and the research questions to be addressed.

Chapter 2

2 Keywords identification (standard literature review)

2.1 Chapter overview

This chapter presents the outcomes of a standard (conventional) literature review on the concept of physical availability, with the focus on the brand presence element. It aims to identify a series of keywords for Study 1 (systematic literature review (SLR)). The keywords also form the basis for survey questions administered to marketing practitioners in Study 2. There will be two components to this standard (conventional) literature review, setting the foundations for this thesis research objectives and questions, as follows.

Section 2.2 focuses on **offline** physical availability, exploring a variety of sources to identify relevant keywords related to the brand presence element in brick-and-mortar domains. This section also highlights the outstanding knowledge gaps, building a case for the first research question.

Section 2.3 concentrates on **online** physical availability, reviewing and examining relevant academic and business sources, covering possible evaluations of brand presence in e-commerce, m-commerce and social commerce. The same section lays the foundation for the second and third research questions.

Section 2.4 collates existing practitioners' insight into marketing metrics linked to physical availability (offline and online brand presence), justifying the need for a fourth and final research question exploring brand managers views on physical availability.

As a note, this thesis concentrates on brands linked to tangible goods sold in brick-and-mortar contexts and online through different distribution methods. Brands that are sold only offline or only online (e.g., 'click only' businesses), and brands attached to services (e.g., banks, insurance and travel brands) are not considered in this thesis.

2.2 Offline (brick and mortar) physical availability

2.2.1 Offline physical availability and brand presence keywords

Chapter 1 anticipated that physical availability is linked to many generic marketing terms such as retail distribution, the place element of the marketing mix and push marketing strategies (Armstrong & Kotler 2012; Kucuk 2008; Olver & Farris 1989; Reibstein & Farris 1995). Since these concepts are broad in nature and difficult to turn into actual measures or distinct managerial strategies, these terms will not be used as keywords for Study 1 and 2. Instead, the focus will be on the following keywords and concepts, which are more easily translatable into measures or specific marketing tactics.

The first two keywords used for the SLR are **breadth and depth of distribution** (Olver & Farris 1989). Breadth of distribution concerns **brand coverage**, i.e. consumers ease in finding a store that sells those products; depth of distribution concerns **in-store presence** and **attractiveness**, i.e. how easy it is to find the desired brand in the store (Ailawadi & Farris 2017; Farris et al. 1989). **Distribution breadth** and **depth** are similar to physical availability, because they focus on understanding the brand's findability or how effectively the brand is stocked in retail stores. In particular, **distribution breadth** resembles the presence component of physical availability, because it involves analysing how easy it is for consumers to find and access the brand, and the probability of brand availability in store (Ailawadi & Farris 2017; Farris et al. 1989). Similarly, distribution depth considers a brand's findability within a stocking outlet, while also accounting for in-store attractiveness and presentation in the stores, thus arguably simultaneously capturing the prominence component of physical availability.

Another closely related concept worth considering and expanding upon is **physical presence**. Moran (1990) describes physical presence as being able to find the brand in a relevant buying situation such as in a supermarket. Moran (1990) further explains that physical presence is a marketing technique that impacts brand sales, as it facilitates the consumer decision making process in the store thanks to superior (i.e., value or equity generating) **product distribution and shelf space**. Similarly, **retail availability** refers to

instances whereby products and goods are made easily accessible to consumers at any given time (Farris et al. 1989; Farris 2004; Wilbur & Farris 2014).

Other terms used to refer to physical availability in the marketing literature include **distribution coverage** (Reibstein & Farris 1995) and **market coverage** (Ailawadi & Farris 2017), both capturing instances whereby a brand covers as many distribution points as possible. These are well known concepts typically used to examine the relationship between market share and distribution. Finally, firms often refer to brand presence as **in-store presence, product availability** or **retail presence** (Bain Insights 2014; Brogie 2020; Gupta 2019; Vessella n.d.). These terms also imply that brands ought to be available, easily noticeable and be conveniently placed in a store.

In summary, the following keywords derived from the broader marketing literature indirectly linked to the brand presence element of physical availability offline will be considered for Study 1 and Study 2:

> *Distribution breadth; Distribution depth; In-store presence; Physical presence; Retail presence; Retail availability; Brand availability; Product availability; Brand coverage; Distribution coverage; Market coverage; Product distribution; Shelf space; Aisle displays.*

This list of keywords primarily concerns marketing strategies or goals, which more closely resemble the brand presence element of physical availability than the general marketing concepts mentioned in Chapter 1. However, the following section also considers an additional set of keywords representing *actual measures* of brand presence in brick-and-mortar retail stores.

2.2.2 Measuring offline physical availability brand presence

According to Aaker (1996b) physical availability can be examined by measuring the percentage of stores that stock the product, or by measuring the percentage of consumers who have access to the product. Some of the most popular distribution measures to evaluate a brand's physical availability and presence are: Numerical Distribution, All

Commodity Volume (ACV), Product Category Volume (PCV) and/or Total Distribution Points (TDP) (Ailawadi & Farris 2017).

2.2.2.1 Distribution and weighted distribution measures

Numerical distribution (also referred to as **physical distribution**) is simply how many stores sell that good or service. (Ailawadi & Farris 2017; Farris et al. 2006; Reibstein & Farris 1995). Brands should aim for a high numerical distribution, because it indicates that their products are available in a large number of stores (Nielsen 2018). This measure is an example of the presence aspect of physical availability because, it shows whether the brand has enough exposure to consumers. However, numerical distribution does not specify if the brand is in an effective and well performing location. Moreover, this measure does not account for the fact that different outlets may have dissimilar sales potential (Reibstein & Farris 1995). This aspect, in contrast, is captured by **weighted distribution** (Guissoni et al. 2020).

Measuring **weighted distribution points** is another way brands can evaluate the presence aspect of physical availability (Nenycz-Thiel et al. 2017). Weighted distribution suggests that the stores are weighted based on their relevance (i.e., retailer share of sales) within the category, which makes it more useful than numerical distribution (Nielsen 2018; Reibstein & Farris 1995). Measures ACV (all commodity volume) and PCV (product category volume) are examples of weighted distribution measures and are known to be reliable measures for evaluating brand presence in brick and mortar stores (Ailawadi & Farris 2017). In more detail, **ACV or ACV% (all commodity volume)** measures the brand's product availability based on the percentage of total commodity retailer sales that stock the brand, over the total sales of all outlets in the category (Reibstein & Farris 1995). This is typically inferred by analysing the stock keeping unit (SKU) of the product in multiple stores. A store must stock at least one unit of the brand's products to be considered part of the measure (Farris et al. 2016). Wilbur and Farris (2014) measured distribution by analysing scanner data sales for 37 product categories compiled by ACNielsen over two years. The authors measured distribution by calculating the percentage ACV as a weighted average. The results highlighted that large product categories and more concentrated categories reveal a convex relationship between distribution and market share. Normally, apart from being present on the shelf, the product must be scanned to be considered part of the distribution.

Hence, if brands experience low ACV, their products are not in the highest selling stores in that location (Nielsen 2018). Nonetheless, despite not specifying how many stores sell the brand's products and where these products are located within the store, ACV gives a good indication of the store traffic (Farris 2004; Kucuk 2008).

PCV or PCV% (product category volume) is the percentage of total category sales made by stores that stock the brand (Reibstein & Farris 1995). The purpose of this measure is to calculate the product's availability in the most important category stores (Farris et al. 2006). Guissoni et al. (2020) examined the relationship of PCV and numerical distribution compared to market share. To calculate PCV the authors used scanner sales data from a large Brazil soft drink company, which comprised 195 brands and 1,110 SKUs, separated by channel format, beverage type and region. The results suggested that PCV and numerical distribution measures are both important, but the impact of the measures differ for different product categories. Hence, brand managers should focus on a measure that suits their strategic goals (Guissoni et al. 2020). Moreover, brand managers can also estimate the PCV by determining the square footage for a particular product in the category available in the store (Farris et al. 2016). PCV provides a good indication of whether a brand's products are in the outlets consumers are shopping the category from (Farris et al. 2016; Guissoni et al. 2020). If brands have a low PCV, it is possible that their products are not in the right stores. To increase PCV, brand managers can compare their competition's behaviour against theirs and consider expanding into other locations (Nielsen 2018).

TDP (total distribution point) or cumulative distribution points is the sum of the weighted distribution for all items sold in a store over a given time period (Nielsen 2018). TDP considers the distribution depth and breadth of a product and can explain the volume changes that may not have been accounted for when analysing ACV or PCV. Specifically, unlike ACV or PCV, TDP takes into consideration that smaller stores may not have the same power as large stores (Farris et al. 2016). Furthermore, TDP can be measured by point of sale/ scanner sales and can offer an indication of the brand performance (Farris et al. 2016).

Another noteworthy measure is the **category performance ratio** (CPR), which sheds light on whether a retailer or stocking outlet in the brand's category is an effective seller (Farris et al. 2016). Stores are typically weighted by their category sales or ACV%. CPR can be

calculated by comparing the PCV% to ACV%. Distribution outlets with a CPR greater than one are typically deemed to be more effective.

From the literature considered so far, the following list of additional keywords linked to offline brand presence measures will be also included:

> *Weighted distribution points; Numerical distribution; All commodity volume; ACV%; Product category volume; PCV%; Total distribution points; Category Performance Ratio.*

2.2.2.2 Retail store traffic and brand presence

Measuring **store traffic** or **foot traffic** is another method to evaluate in-store brand presence, because it looks at **product exposure** to shoppers and it establishes which retail stores are the most important (Ailawadi & Farris 2017). Store traffic can be defined as the number of customers that enter the retail store in a period of time (Ailawadi & Farris 2020; Anic et al. 2010). Typically, high foot traffic leads to higher sales and revenue. However, large foot traffic alone does not necessarily generate sales (Perdikaki et al. 2012).

There are various ways to measure retail store traffic. For instance, to measure **volume of shopper traffic** counts the number of customers that entered a store and using a five-point scale to rate the traffic throughout the day (Anic et al. 2010). Brands in high traffic stores, suggests their products are at the right location and are reaching the target market (Anic et al. 2010; Perdikaki et al. 2012). Additionally, assessing a store's **customer traffic flow** - i.e., customers movement in the store, as inferred from the number of aisles shoppers stopped at and purchased a good. Compared to foot traffic, customer traffic flow specifies where exactly consumers spend their time and money (Anic et al. 2010). Nowadays, automated tools can be used to measure in-store traffic (Ufford 2016). As seen in Figure 2, placing electronic counters at the store entrance to measure the number of store visitors (Perdikaki et al. 2012; Ufford 2016).

Figure 2: Customer traffic sensors[1]



Moreover, companies like Aiselabs (www.aiselabs.com) can track **customer visits**, movement and purchasing habits through applying heat sensors around the store to help determine if the displayed product is in a 'hot spot' or successful position (Ufford 2016).

Accordingly, the following keywords will be added to the previous two lists to be used in Study 1 and Study 2:

> *Retail store traffic; Store traffic; Foot traffic; Sales and foot traffic; Customer traffic flow; Volume of shopper traffic.*

2.2.2.3 Outlet sales

Sales per square feet (or **meters**), also referred to as **total outlet sales** is another measure that can be derived by dividing the total store sales by the selling space in square feet (or meters) (Ailawadi & Farris 2017; Farris et al. 2016; Nicasio 2018). Non-selling areas such as stock rooms are typically excluded in the measure; yet, sales per square foot is particularly useful when brands own multiple retail stores and need to determine **store productivity** (Ailawadi & Farris 2017).

[1] Camba.tv. (2015), CCTV Cameras that can detect & count faces. Camba.tv. <https://camba.tv>

Brands prefer a high product sales per square footage for all stocking locations, since it indicates effective usage of retail space (Kumar & Karande 2000; Nicasio 2018; Zuberi & Rajaratnam 2020). However, a store with high productivity (i.e., high sales per square footage) may not always be the most profitable (Sellers-Rubio & Mas-Ruiz 2007). For example, Sellers-Rubio and Mas-Ruiz (2007) found that leading supermarket stores had low profits, but comparatively high productivity than medium sized stores. The authors concluded large stores may appear more productive, simply because of being well-established and often in the right location. Nonetheless, measuring sales per square area yields relevance to the offline brand presence element of physical availability, because it shows if an outlet is productive and in the right place, at the right time. Hence, the following keywords will be also considered in this thesis:

Sales per square feet; Sales per square meters; Total outlet sales; Store productivity.

2.2.2.4 Shelf space and brand presence

Determining **share of shelf space** is a common and simple way to evaluate offline brand presence (Farris et al. 2016; McKinnon et al. 2007; Waller et al. 2010). It can be calculated by examining the amount of space the product or brand has on the shelf in a stocking outlet, compared to the total amount of shelf space available (Waller et al. 2010). Share of shelf space could be a useful measure if a particular store is in the right position for consumers to find the brand's products. Logically, brands need more **shelf space** for greater brand exposure (Martinez-de-Albeniz & Roels 2007; Suárez 2005). Hence, brand managers could negotiate higher percentage of store shelf displays to increase brand presence. In this regard, large stores are likely to have more total shelf space; retain more diverse range of products; and have greater power on where and quantity of brand's products placed (Martinez-de-Albeniz & Roels 2007). Measuring shelf space can be time consuming and tracked over time to understand a brand's performance. However, brand managers can monitor shelf positioning through planograms or diagrams (Figure 3).

Figure 3: Planogram diagram[2]



Considering the information above, the following keywords will be considered:

Shelf space; Share of shelf space.

2.2.3 Research question one: offline brand presence measures

As evident from the literature discussed so far, there are multiple marketing metrics closely related to the presence aspect of physical availability. Many of these concepts use similar if not even identical measures. For instance, breadth distribution and retail availability both note to use measures ACV, numerical distribution and PCV to establish physical availability and presence (e.g., Ailawadi & Farris 2017; Olver & Farris 1989; Wilbur & Farris 2014). Multiple terms describing the same concept and measure can create unnecessary confusion for academics and practitioners. This is the focal issue that this thesis addresses.

It is also important to consider that literature does not focus on the brand presence element of physical availability; this poses a further problem, as clarified in Chapter 1 the presence element of physical availability is essentially a pre-requisite for the other two

1 [2] Zillak P. (n.d.). *How do you ensure planograms are being followed?. Xkzero.* https://www.xkzero.com/ensure-planograms-followed/

determinants of it (prominence and portfolio). Meeting the need for a systematic review and cataloguing of literature on an important aspect of physical availability, this thesis aims to provide an inventory of the presence measures for academics and marketing experts to refer to, answering the following first research question:

RQ1: What are the existing measures of offline brand presence?

2.3 Online physical availability

The previous section suggests that there is extensive literature and research available for offline physical availability presence measures. With the ever-growing and ever-changing online domain and the increase in consumer confidence in online shopping, different concepts capturing methods and measures to enhance physical availability online need to be considered.

In 2021, globally, around 2.14 billion or one out of four people were expected to shop online (Coppola 2021). With advancing technology consumers can 'virtually' buy and choose products. For example, virtual reality mobile apps allow consumers to try the product on themselves or in a (virtual) room before they buy it. The shift to enhancing physical availability of brands online is also the result of changes in lifestyle and consumer demands, preferences and needs. For instance, consumers unable to visit the offline stores at any hour, have restricted mobility, transportation or accessibility issues and to avoid crowds (Jiang et al. 2013).

Moreover, consumers are embracing online shopping, because of the practicality such as easily gaining information about products (through descriptions, reviews and photos) and effortless shopping experience from the comfort of their home or 'on the go' (Duch-Brown et al. 2017; Smith & Anderson 2016). In some cases, products can even be delivered at home the same day or the next day, for a personalised shopping experience without hassles.

More recently, the number of people who purchase goods online has further escalated due to the COVID-19 pandemic and related health and safety implications. In a 2021 survey,

67% respondents noted shopping differently due to COVID-19 (Aronson 2021) and worldwide around an additional 900 million more people joined online shopping than in 2020 (Oberlo 2021). As a result, more brands and retail stores than ever before have had to embrace e-commerce and online channels to make up for the lack of consumers visiting physical stores. Accordingly, the next sections will focus on physical availability in the online context, establishing additional keywords for Study 1 and 2.

Generally, in the online context, physical availability can be defined as the brand being available to be purchase through various online channels and across different devices (Nenycz-Thiel & Romaniuk 2016). For example, brands may have a website, a mobile application, social media pages with 'calls to action' for online purchases (e.g., Shopify buttons on Facebook and Instagram), products available on third party websites (e.g., eBay) and be present in online marketplaces (e.g., Etsy or Redbubble). Authors such as Ailawadi and Farris (2017) describe online physical availability as **distribution breadth online** - i.e., how easy it is (for consumers) to find the brand online. The literature has also discussed the notion of **digital availability**, which concerns maximising the breadth and depth of a brand's distribution over space and time online (Spence 2020).

In essence, along with having presence in brick and mortar stores, brands are increasing their **online distribution channels** by using e-commerce, m-commerce and social media to reach customers and allow customers to purchase their products with ease and confidence (Dawes & Nenycz-Thiel 2014; Duch-Brown et al. 2017; Nenycz-Thiel et al. 2016; Ryu et al. 2019). Accordingly, the first set of online keywords for Study 1 and 2 are:

Distribution breadth online; Digital availability; Online distribution.

2.3.1 Multichannel, omnichannel and cross channel distribution

Both in academic literature and in practice, online physical availability or retail distribution are referred to as **multichannel distribution** and **omnichannel distribution** (Ailawadi & Farris 2017; Verhoef et al. 2015). Multichannel involves "the design, deployment, coordination, and evaluation of the different channels through which the marketer acquires, retains, and develops customers" (Neslin et al. 2006). Consumers not only shop

in physical retail stores, but also use online channels like online stores, mobile apps and social media to find and buy products. Therefore, brands are available on many different channels and aim to optimise the performance on each channel they are present on (Ailawadi & Farris 2017; Jo et al. 2020) and these channels are customer contact points facilitating the interaction between businesses and consumers (Verhoef et al. 2015).

In comparison to multichannel distribution, omnichannel goes 'a step further' by coordinating distribution channels to provide a seamless experience for the customer (Shankar & Kushwara 2020). Therefore, integrating offline and online channels together, aiming to provide convenience at all touch points (Ailawadi & Farris 2017; Herhausen et al. 2015; Verhoef et al. 2015). Multichannel also clearly separates offline and online channels, while omnichannel aims to allow customers to move freely between offline and online stores (Verhoef et al. 2015). For instance, consumers use their laptop or phone to order goods with the option "click and collect" to be picked up from the nearest convenient location. For example, Australian supermarket Coles has a digital portal, Coles&co, offering various specials, cooking tips and recipes, and allows consumers to purchase directly from the portal and get their goods delivered directly to their homes (Coles 2021).

Cross channel is another relevant concept and is described as the effects that marketing efforts deployed in one channel can have on the shopping experience in other channels (Shankar & Kushwara 2020; Simone & Sabbadin 2018). Hence, the assumption is that the various distribution channels will be connected and are complementary. For example, Coles may place a QR code in a catalogue or newspaper and, when scanned with a smartphone, it will immediately lead consumers to their website to see the specials. These channels work together to enhance brand presence and accessibility in a variety of situations, facilitating decision making and the act of buying.

The concepts multichannel, omnichannel and cross channel can help brands have strong online presence and to be available on the right websites, apps and social media platforms. Therefore, the following keywords will be included in this thesis:

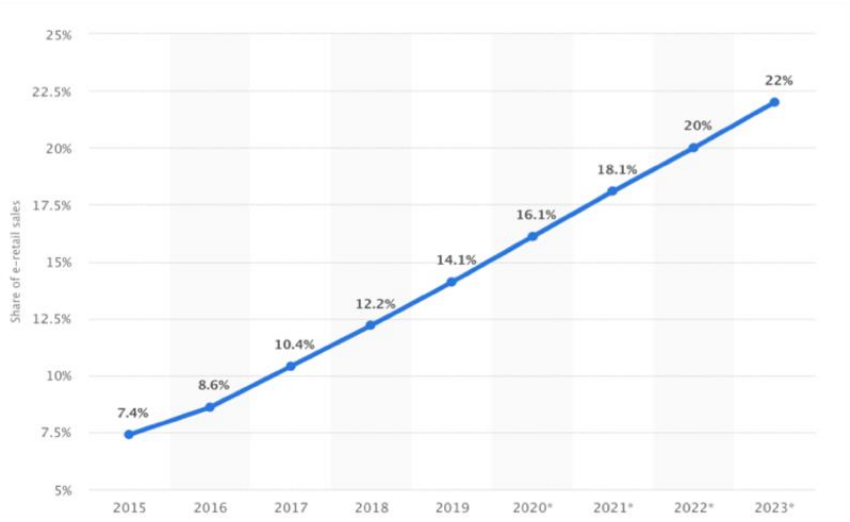
Omnichannel distribution; Multichannel distribution; Cross channel distribution.

The next sections will discuss specific marketing efforts, techniques and measures to increase their online brand presence, organised into three key domains: e-commerce, m-commerce and social commerce. Although some may argue that mobile commerce and social media are part of e-commerce (e.g., Kwon & Sadeh 2004; Strauss & Frost 2016), this thesis will examine these separately, because they each have unique strategies and approaches.

2.3.2 E-commerce

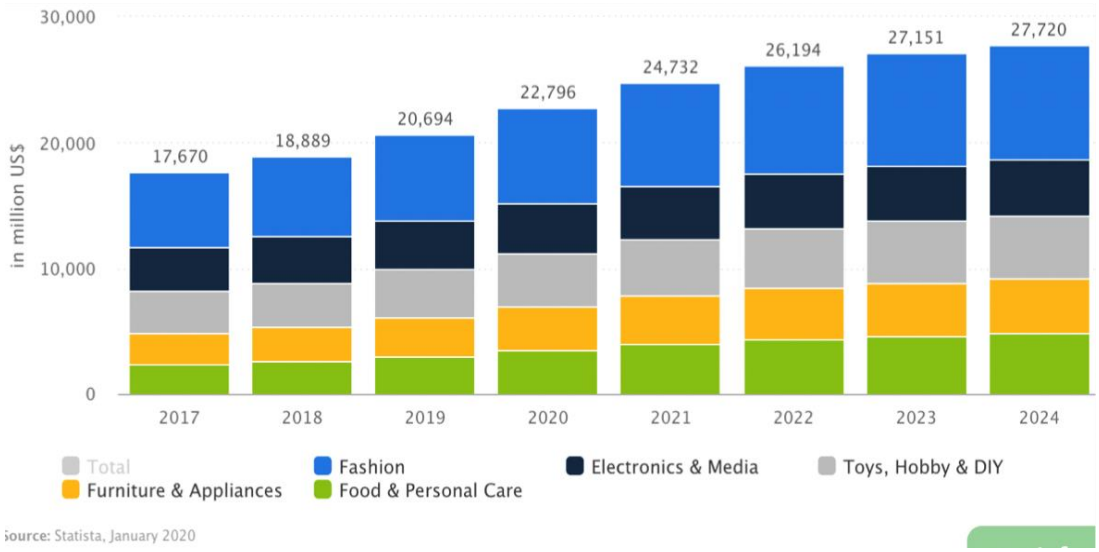
E-commerce or electronic commerce concerns buying and selling products or services over the internet (Tokareva 2018). Figure 4 shows that in 2019 global e-commerce sales were about 14%, and it is predicted by 2023 e-commerce will account for about 22% of global retail sales (Statista 2020). Furthermore, it is anticipated in Australia that e-commerce sales will be more than 27 million US dollars by 2023 (Figure 5) (Statista 2020). This illustrates that online shopping is here to stay and consumers are increasingly using e-commerce websites and channels for shopping and interacting with brands.

Figure 4: Global e-commerce sales[3]



[3] Coppola, D (2022). E-commerce as share of total retail sales worldwide 2015-2025. Statista. < https://www.statista.com/statistics/534123/e-commerce-share-of-retail-sales-worldwide/ >

Figure 5: E-commerce revenue sales in Australia[4]



Some of the ways brand presence can be enhanced in e-commerce include enhancing the visibility of the brand's own e-commerce website on search engines or having presence on online marketplaces (e.g., Amazon or eBay). Accordingly, this thesis will focus on branded online stores and websites, search engines, price comparison search engines and third-party websites. To provide a clearer understanding of how e-commerce keywords were derived for this thesis, each section separates *approaches* (i.e., strategies used to increase or attain online brand presence) and *measures* or *measurement tools* (i.e., techniques or tools that can be used to evaluate the effectiveness of the approaches). The same set-up will be utilised for the m-commerce and social commerce sections.

2.3.2.1 Online stores and websites

Approaches

To increase online brand presence, many brands are investing in online stores or websites that allow consumers to explore and directly purchase products (Frost & Strauss 2016). For example, brands have websites to help consumers discover the latest products and facilitate to make a purchase. Furthermore, tools like Shopify (an e-commerce platform for online stores that allows companies to create their own branded website) have been game changers for small brands, because it can increase their presence and give them a

[4] Coppola, D (2022). E-commerce as share of total retail sales worldwide 2015-2025. Statista. < https://www.statista.com/statistics/534123/e-commerce-share-of-retail-sales-worldwide/ >

competitive edge (Debter 2020; Kale 2020; Shopify n.d.). A brand's shopping website could resemble a brand's physical store and essentially, it is now a common way to find the brand's products and information about their range (Shaw 2014).

Measures and measurement tools

Assessing website traffic and activity on the page such as measuring the **page views** (number of times a website page has been viewed over a certain period of time) can help show the popularity of the website/ online store and if it is the right channel for the brand (Farris et al. 2016). Ideally, brands desire a high number of page views, because it illustrates that the website is accessible and so is the brand. Furthermore, brands can determine **website visits** (number of times the audience visits the website) and **website visitors** (number of unique visitors) to measure audience traffic and reach of the website (Farris et al. 2016). Website visits shows the web traffic, while the number of website visitors can establish what type of traffic is coming in and how frequently the audience is interacting with the website. Brand managers can also determine which devices (e.g., laptop or mobile) and sources or medium (e.g., Google, Finder.com or Facebook) consumers are accessing the branded website from. This is typically inferred through tools like Google Business Analytics (Google 2020b; Plaza 2011) and can be useful to establish the effectiveness of the brand's online presence. Indeed, page views, website visits and visitors could be deemed equivalent to measuring instore traffic. These measures clearly demonstrate to brands that the website is used by consumers, reaching new customers and/or engaging with current customers. Hence, the next set of keywords for Study 1 and Study 2 are:

Website page views; Website visits; Website visitors.

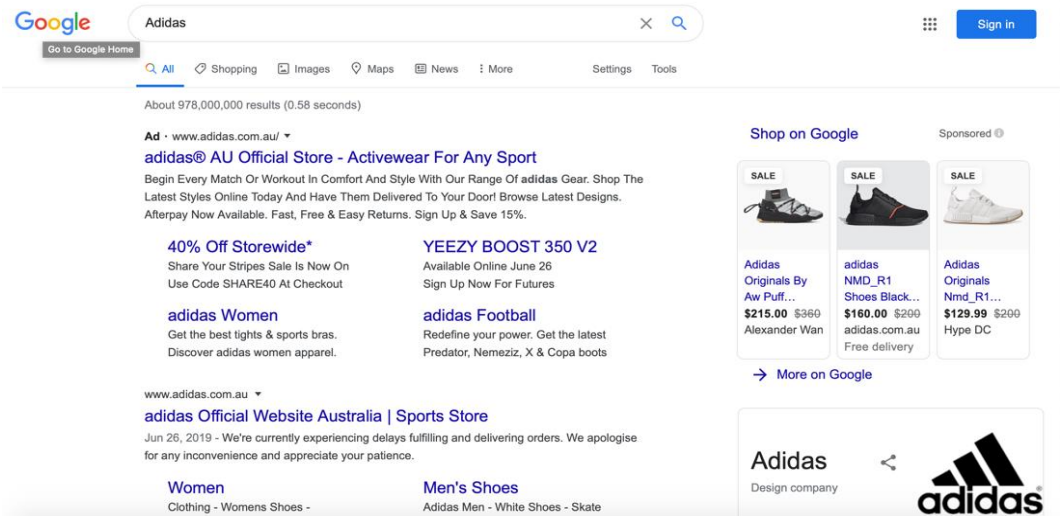
2.3.2.2 Search engines

Approaches

To gain maximum online brand presence, brands need to invest in their positioning on search engines, aiming to be on the top of the results search page or in the first page (Ailawadi & Farris 2017). Indeed, many consumers might not browse past the first or second page of the search results; hence, presence and **positioning in search engine results** plays an important role in attracting sales online (Ailawadi & Farris 2017). Search engines

such as Google and Yahoo have made it easier for brands to be present at the right place, when consumers are, at face value 'in the market' as evidenced by searching online and allow consumers to easily access products and brands when they need it. Search engines and search results pages operate similar to a **digital shelf** allowing consumers to compare, decide on products and purchase (Rivard 2014). For instance, global sports apparel brands such as Adidas utilise Google Ads to increase the positioning of their website (see Figure 6). Similarly, online advertising platform such as CitrusAd allow managers to bid for prime positioning on retailer and supermarket online stores such as Coles Australia, Tesco UK and Target US (Sier 2021).

Figure 6: Brand positioning on search engines[5]



Measures and measurement tools

A frequently monitored measure of a brand's position on search engines is **search engine results page** (SERP) (Law 2019). SERP can be similar to the offline measure PCV as big brands or brands with large number of stocks would rank highly on the search engine page (Ailawadi & Farris 2017). To improve the SERP measure, managers can pay for certain keywords to increase brand presence on search engines. To gather a better perspective into this marketing tactic, it is possible to use measurement tools like Google Keyword Planner and AdWords to analyse the keywords' positioning in the search engine that are associated with their brand or their competitors' products (Google 2020a). However, these measures do not showcase the number of sales resulted from the searches; whether the

[5] Unknown. (2021). Adidas. Google. <www.google.com>

audience clicked onto the website page; and the number of website views. To this end, it is paramount to consider conversion metrics. Conversion is often defined as taking the desired action on the website (Soonsawad 2013), such as the number of clicks on the website, making a purchase, signing up to notifications or browsing through the website. A click on the website or a large quantity of views could indicate that the website is effective at enhancing online brand presence (Baye et al. 2016). Hence, similar to **digital shelf presence** and positioning, analysing conversion to sales can also be considered effective online brand presence and positioning.

Another measure online stores may also use is **product category search volume** (PCSV), which captures the number of searches of a certain product on a search engine or a website (Ailawadi & Farris 2017). If a brand in that product category has a higher search volume than competitors, it has good online presence. PCSV is similar to distribution measures ACV and PCV; however, it provides additional details by presenting the **reach**, **frequency** and preferences of the shopper (Ailawadi & Farris 2017). Furthermore, **Share of Search** is another measure that can inform brands their online presence in the market (Swift 2020), since it captures the extent to which consumers search for a brand or its products compared to competitors. Accordingly, the additional keywords that will be considered in this thesis are:

> *Search engine positioning; Search engine results page (SERP); Website clicks; Digital shelf; Digital shelf presence; Product category search volume; Website page reach; Website page frequency; Share of search.*

2.3.2.3 Price comparison search engines

Approaches and measures

Price comparison search engines or **comparison shopping-engines** (for example, Google Shopping, Yahoo Shopping and Shopping.com) can leverage sales and assist consumers with purchase decisions. These websites act like a **virtual store front** or shelves for shoppers to compare prices, product information, product availability, locality and purchase options in one place (Hayes 2019), resembling the shopping experience in physical stores. For instance, Google Shopping has its own measurement tool, **benchmark**

product price difference (BPPD) allowing brands to compare their products against their competitors. This tool helps brands evaluate their product prices against the average price for the same product across all businesses for a small fee (Hayes 2019). Brand presence on price comparison sites can also be measured by using in-built analytics and insights which considers the number of views, reach or clicks on the page, evaluating product positioning (ranking) in comparison to other similar products (Google 2020b). These measures are keywords that have already been considered in the above sections. Hence, the additional keywords that will be included in this thesis are:

> *Price comparison search engines; Comparison shopping-engines; Virtual store front; Benchmark Product Price Difference (BPPD).*

2.3.2.4 Third party websites

Approaches and measures

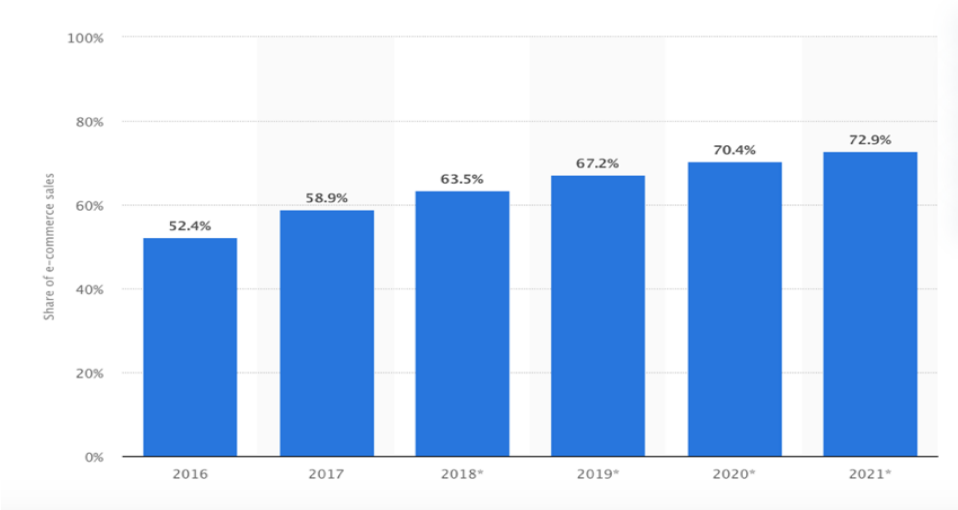
Selling on third party websites can also logically increase online brand presence and sales. For example, in the US, Amazon accounts for almost half of the total e-commerce sales, selling more than 12 million products a year (Dayton n.d.). Online marketplaces like Amazon, eBay and Alibaba reportedly use **gross merchandise value** (GMV) to determine sales volume (Ailawadi & Farris 2017). GMV examines the total value of sales transacted and it is essentially equivalent to the ACV offline measure (Ailawadi & Farris 2017), easily establishing the 'fastest-moving' products. However, it does not factor the number of customers who visited the website, price discounts or any returned items (Maia 2020). Therefore, it is important to consider other measures on third party websites such as **product reach, keyword ranking, click through rate, impression, number of orders, purchase rate** and **category sales from third party websites**. Accordingly, the additional keywords to be considered for Study 1 and 2 include:

> *Gross merchandise value (GMV)*; *Product reach; Website keyword ranking; Click through rate; Website impressions, Number of website orders; Purchase rate; Brand category sales*.

2.3.3 M-commerce

M-commerce or mobile commerce has become a major channel for online shopping (Frost & Strauss 2016; Mali n.d.). Due to the convenience factor, compact size, lightweight and flexibility of mobile devices such as smartphones and tablets, mobile commerce is maintaining and growing popularity among consumers. For example, in 2017 under 60% of global e-commerce sales came from a mobile device, but it was predicted that this will surpass 70% by end of 2021 (Figure 7) (Coppola 2021).

Figure 7: e-commerce sales that come from mobile[6]



Some examples of m-commerce include, purchasing goods online using a web browser accessed through a mobile device, mobile shopping, mobile applications, money transferring / banking, payments, and tickets and passes for events and travel. Mobile shopping is a new and interactive way for consumers to buy products. One research found that about 55% of web traffic comes from mobile phones (StatCounter 2021) and that since 2016, mobile shopping sales has increased to almost 40% (Oberlo 2021). Furthermore, mobile apps are the fastest growing branch in digital marketing with almost 50% of US consumers using mobile apps to conduct product research (Statista 2019). Considering these facts, the thesis focuses on these two prominent m-commerce strategies to identify relevant keywords for Study 1 and Study 2.

[6] Coppola D. (2021). Global Mobile Retail Commerce Sales Share 2016-2021. Statista. < https://www.statista.com/statistics/806336/mobile-retail-commerce-share-worldwide/ >

2.3.3.1 Mobile shopping

Approaches and measures

Nine out of ten individuals have access to a smartphone (Deloitte 2019), providing another opportunity for brands to reach consumers and be purchased. Furthermore, more than five billion people use mobile phones every day, which equates to 67% of the world's population, spending an average of over four hours every day on mobile phones (Kemp 2021). Therefore, online shopping on a mobile device is an attractive option for consumers because it provides flexibility to purchase goods at their convenience. Also, mobile websites are typically quick to load up - according to Google Research (2017), an average time of 22 seconds - and do not take up much storage space on a device (Komarek 2015).

Considering consumers frequent and easy access to websites or online stores via mobile devices, it seems logical to consider brand presence measures such as SERP, PSCV, number of clicks, website reach, website frequency and share of search also in relation to m-commerce. Likewise, consumers may access price comparison search engines on mobile devices. Therefore, brand presence measures such as BPPD, number of views, reach, clicks and brand position compared to other brands are also a logical part of m-commerce. As a result of this reasoning, the following keywords will be considered for Study 1 and Study 2:

> *Mobile website page views; Mobile website visits; Mobile website visitors; Mobile search engine positioning; Mobile search engine results page (SERP); Mobile website clicks; Mobile product category search volume; Mobile website page reach; Mobile website page frequency; Mobile share of search; Mobile price comparison search engines; Mobile comparison shopping-engines; Mobile Benchmark Product Price Difference (BPPD); Gross merchandise value (GMV)*; *Mobile product reach; Mobile website keyword ranking; Mobile click through rate; Mobile website impressions, Number of mobile website orders*

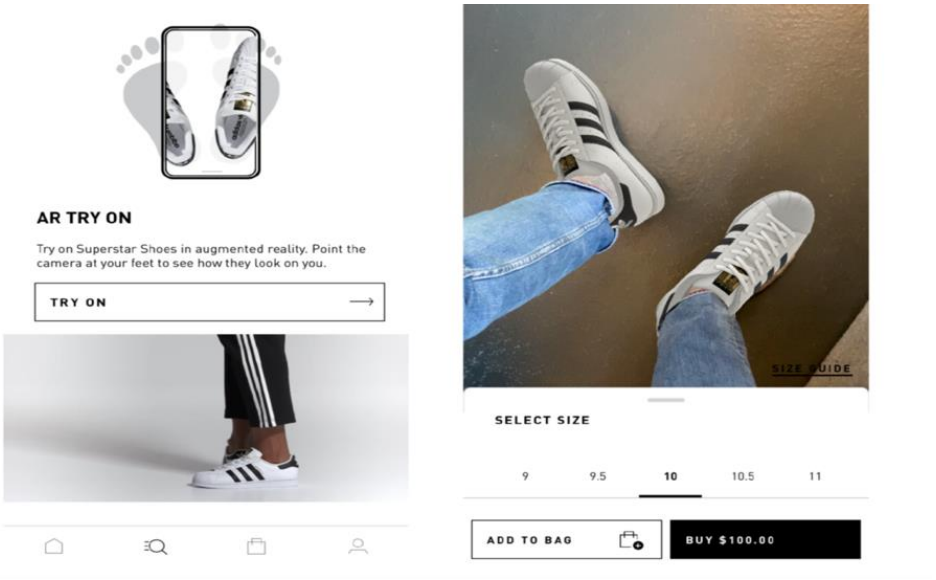
2.3.3.2 Mobile applications

Approaches

Mobile apps are "software that is downloaded to a mobile device and prominently display a brand identity, normally through the name of the app and the appearance of a logo or icon of a brand throughout the user experience" (Bellman et al. 2011,p.191). They are an excellent marketing tool to engage and interact with consumers (Stocchi et al. 2019) and are continuing to grow in popularity, because it allows a faster access to the brand and its products compared to traditional web or Internet browser (Stocchi et al. 2017). Many brands are investing in mobile apps to expand their presence and cover as many buying situations as possible. In fact, 90% of global brands have one or more apps (Tseng & Lee 2018). Apps also outperform mobile websites by 157% and about 85% of consumers prefer using mobile apps to mobile websites (Buildfire 2021). As a result, the mobile app market is expected to be valued about $407 billion by 2026 (Business Wire 2020).

From a physical availability point of view, apps provide tailored contents to suit the consumer and give personalised experience to the customer, while making the app a 'brand in the hand' (Stocchi et al. 2017; Stocchi et al. 2019; Sultan & Rohm 2005). Indeed, branded mobile applications (e.g., the Adidas app or The Iconic app) work as a tool to increase brand accessibility and allow brands to engage with consumers at any place and at any time (Stocchi et al. 2017; Sultan & Rohm 2005). Apps can display products, prices, and information, which can make the brand easy to find and buy from. Some studies have determined that apps have a positive impact on consumer spending, satisfaction and loyalty towards the brand (Stocchi et al. 2019; Wang et al. 2016). Research has also found that after downloading branded applications consumers were more experimental in their choices and were about 20% more likely to be swayed to purchase a lesser known product (Gill et al. 2017). Furthermore, consumers often use the app as replacement of physical store showrooms to view the displayed products. Playing with this idea, some brands like Adidas, The Iconic and Freedom Furniture are using mobile applications as stimulations or virtual reality (Conversation 2017; Mohsin 2020). Thus, creating a similar experience by allowing customers to trial products like in a brick-and-mortar store.

Figure 8: Adidas augmented reality[7]



Artificial intelligence apps like Style Snap by Amazon let consumers take a photo or a screenshot of an outfit and the app will show similar outfits and clothing (Rosmarin 2020). Likewise, Australian fashion brand The Iconic has a feature in their app called Snap to Shop (Figure 9), which allows consumers to take photos of clothes in a store or on someone in the street, and the app will identify exactly the brand or similar clothing product. Both tools allow customers to compare prices, sizes, styles and even lead consumers directly to **purchase within the app**.

Figure 9: The Iconic Snap to Shop[8]



[7] Manalac A. (2019). Adidas AR Sneakers Try-On App. Virtual Reality Marketing <https://www.virtualrealitymarketing.com/case-studies/adidas-ar-sneakers-try-on-app-2/>
[8] Unknown. (n.d.). Online Clothing Store The Iconic Launches Snap to Shop. Express Digest. <https://expressdigest.com/online-clothing-store-the-iconic-launches-snap-to-shop/>

In addition to the strategies mentioned so far, brands can use **app store optimisation** (also known as, **app store marketing** or **mobile app SEO**) to increase app presence and visibility (App Radar 2021). Nonetheless, it is crucial to acknowledge that brands can be 'present' in the app store, and yet be positioned at the bottom or in the last page, thus being virtually 'invisible' to consumers. Branded apps that rank highly in the app store would have optimal positioning in that category. Therefore, to increase their app store positioning, brands may use certain words, tags, categories and paid advertisement. Accordingly, below are the keywords to be included for Study 1 and Study 2:

In-app purchases; App store optimisation; App store marketing; Mobile app SEO.

It is equally important to create opportunities and incentives for users to use the app. According to Statista (2019) 75% of apps are abandoned after they are downloaded. Users may not find adequate reason to continue accessing the app or may encounter in-app issues, such as glitches that discourage use (Batic 2019). Therefore, it is important that brands can evaluate the effectiveness and usage of the app. This can be done through additional measures of mobile apps performance, which yield some relevance to online physical availability and will be elaborated upon in the following section.

Measures and measurement tools

App stores (Google Play or Apple App Store) operate like virtual shelves (Salz 2015) and a brand's app position in the app store plays a role in whether it is downloaded (Karagkiozidou et al. 2019). Hence, brands can measure presence with the **number of app downloads or installations**. A high number of downloads shows that the app was easily accessible and available (App Radar 2021). Furthermore, **ranking of a branded app** could also be a measure to evaluate brand presence. A high rank in the app store may suggest that the app is in demand and visible in the app store for consumers to easily access (Similar Web 2020). Brands can also analyse **app ranking** by considering the **keywords** used to search for the brand (i.e., search tool). For example, searching for the keyword 'sports shoes' in the Apple App Store, brands like Adidas, The Iconic and Forever 21 are the first few to come up. Once again, brands that are highly ranked for the relevant keywords are deemed to have high presence on the app store (App Radar 2021).

Tools such as App Radar are useful to track **app performance** - i.e., a branded app's performance compared to competitors' apps and customer app download information (App Radar 2021). Moreover, brands promoting the app on their website or social media page should ensure that the app is easy to find within the app store and/or the links direct the consumers to the app. Finally, to understand the effectiveness of the app, brand managers should evaluate the **number of active users** and **average revenue per user** (i.e., if the app allows consumers to make a purchase) (Farris et al. 2016). Accordingly, the following keywords will be added to the previous list and will be considered for Study 1 and Study 2 of this thesis:

> *Number of app downloads; Number of app installations; App performance; App ranking; App keywords ranking; Number of active app users; Average revenue per app user.*

2.3.4 Social Commerce

Social commerce has become an unstoppable force in retail marketing (DeGruttola 2020), whereby consumers can purchase directly or indirectly via social media platforms. Currently, more than half of the world's population are active on social media and it is anticipated by 2025 that over 4 billion people will use these platforms (Kemp 2021; Statista 2020). Up to 87% of customers express that social media helps them decide what to buy and more than 70% of the customers are more likely to purchase products based on social media referrals (DeGruttola 2020). These trends alone call for brands to have prominent brand presence on social media.

According to Statista (2021), Facebook has the most active global users a month (2.7 billion), followed by YouTube (2 billion monthly active users) and Instagram (1.1 billion monthly active users). Furthermore, these platforms are widely used by businesses to promote their products (Kemp 2020). Interestingly, over 10 million advertisers around the world use Facebook (Tankovska 2021) and about 64% of businesses use YouTube to promote their brand (Mohsin 2021). According to Instagram (2022), there are over 200 million business accounts worldwide, and 90% of the top global brands have an account

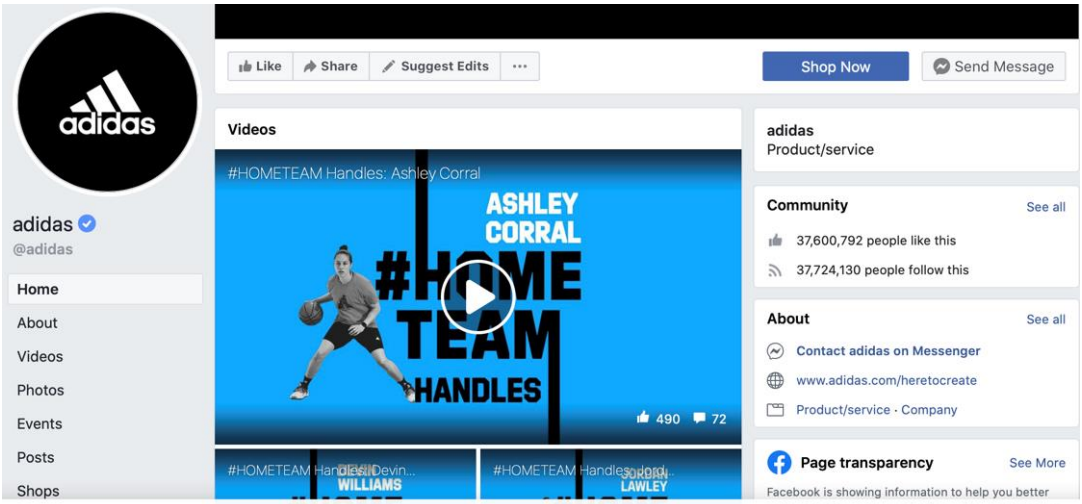
(Smith 2020). In a recent survey, 65% of businesses found Facebook effective in achieving their goals, while 49% found Instagram effective and 34% found YouTube effective in reaching business goals (Hootsuite 2021). Hence, the thesis will focus primarily on these three social media platforms. In particular, the thesis will focus on brands' social media pages, general social media pages and collaborations with social media influencers. Each of these aspects will be discussed in the next sections, distinguishing between approaches (or strategies) and measures relevant to the presence facet of physical availability to find additional keywords for Study 1 and Study 2 of this thesis.

2.3.4.1 Branded social media pages and mentions on other pages

Approaches

It has been argued that **social media marketing** is a vehicle for physical availability (Kennedy 2019). This thesis concentrates on social media strategies that are directly or closely linked to making purchases (e.g., via redirects, direct links or check out in the social media platforms, like 'Shop now' buttons and other widgets or calls to action). Similar to having an offline store, one of the ways brands can enhance their online presence is by having a branded social media page that can redirect consumers to an online store For example, on Adidas's Facebook and Instagram page posts links, call to action buttons and tags to facilitate consumers to make a purchase (Figure 10). To gain additional reach and exposure, brands may indirectly promote on other social media pages. This may be part of paid or in-kind mentions; yet, this additional exposure further contributes to enhancing the brand's presence on social media, and thus has the potential to increase the brand's physical availability beyond basic endorsement mechanisms.

Figure 10: Adidas brand Facebook page[9]



Moreover, brands can use features such as stories or live stories to describe and present the products, allowing consumers to be familiar with the product (Figure 11). These often include features like 'swipe ups', stickers and links that can encourage purchases or further research (Sehl 2020), increasing the overall brand and product exposure. Finally, brands can partner with e-commerce tools like Shopify to enable consumers to make a purchase without leaving the social media page (Shopify 2020).

Figure 11: Social media stories[10]



[9] Adidas. (2021). Adidas Facebook Page. Facebook. <https://www.facebook.com/adidas/>
[10] Taylor V. (n.d.). How Add a Link to your Instagram Story. Wishpond Technologies. <https://blog.wishpond.com/post/115675437783/link-instagram-story>

Measures and measurement tools

There are numerous ways brands can measure their social media presence for brand and collaborations on other social media pages. For instance, **engagement measures** like **reach, impressions** and **views** for posts and stories can also be an indicator of brand presence (Chen 2020; Shleyner 2019). In more detail, although **follower engagement** is typically low for brands in a majority of product categories and does not attract new or light buyer customers (Nelson-Field et al. 2012; Rival IQ 2022). Brands can create engagement opportunities on social media by incorporating call to action buttons and redirect links to their website. This can be measured through analysing the click through rate (Strauss & Frost 2016). Accordingly, the following keywords will be used in Study 1 and Study 2:

> *Social media page reach; social media page impressions; social media page views; follower engagement; Social media redirects.*

2.3.4.2 Social media influencers

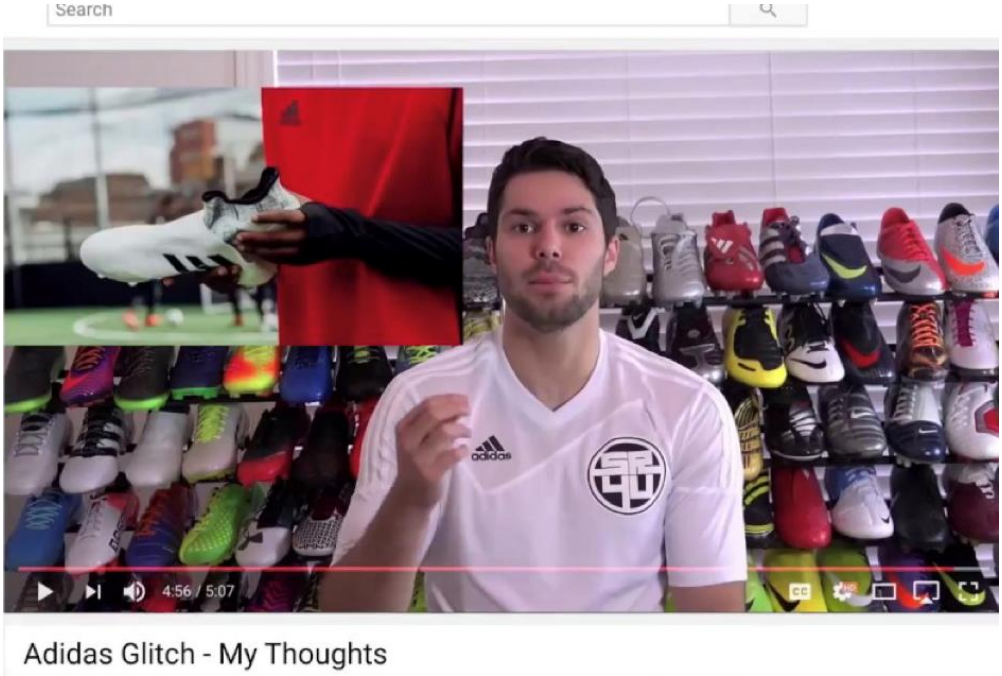
In addition to the aspects discussed so far, brands can collaborate with social media influencers to promote products and increase online brand presence (e.g., Figure 12). Social media influencers are opinion leaders with an accumulate following on blogs and/or social media, often promoting brands (Abidin 2016; Van Der Heide & Lim 2016). Influencers can also be called brand ambassadors and their role is to use promotional strategies to convince a large audience to buy from a brand (Barnhart 2020). Other similar terms are brand advocates, brand spokesperson and opinion leaders.

The influencer industry is expected to be worth over $16 billion USD in 2022 (Santora 2022). In fact, most brand managers intend to spend over half of their budget on Instagram influencers (Santora 2022). Influencers offer a similar experience to physically trying the product in an offline store and can create promotional videos such as vlogs discussing, showing and using the branded products (Freier 2020b). This enables consumers to virtually 'try' brands before they buy, increasing purchasing confidence (Freier 2020b). Moreover, influencers can enhance brand presence and availability by inserting direct links to the products in their description box or in the comment section and tagging the promoted brand (Boyle n.d.). Therefore, similarly to other strategies deployed via owned

social media pages, brand managers can measure online presence by evaluating the number of views, likes, shares and more for posts involving influencers. Hence, this thesis will also consider the following keywords:

> *Social media influencer page reach; social media influencer page impressions; social media influencer number of views; follower engagement; Social media redirects; social media influencer numbers of likes; Social media influencer number of shares.*

Figure 12: Social media influencers increasing brand presence[11]



The next sections will briefly discuss a few specific approaches and measures for each of the three main social media platforms considered: Facebook, YouTube and Instagram. This will help ascertain any further keywords worth including in Study 1 and Study 2.

2.3.4.3 Facebook

One of the ways Facebook is facilitating brand presence is by providing Facebook Marketplace to allow brands and independent sellers to sell their products (Figure 13) (Boyle n.d.). This is similar to a brand selling their goods in a brick-and-mortar store, or on

[11] Unknown. (n.d.). Possible:Adidas Glitch. WPP plc. <https://www.wpp.com/featured/work/2018/06/possible-adidas-glitch>

its online store. Moreover, brands can incorporate a shop section on their Facebook page, where they can include product details and sell directly from the page (see Figure 14) (Boyle n.d.). Facebook's Virtual Shopping Mall, which allows businesses to set up store fronts on the social media platform also provides another avenue to increase brand presence (Bond 2020). Moreover, consumers can also purchase brands directly through Facebook links (e.g., shop now button).

Figure 13: Brands advertising on Facebook Marketplace[12]

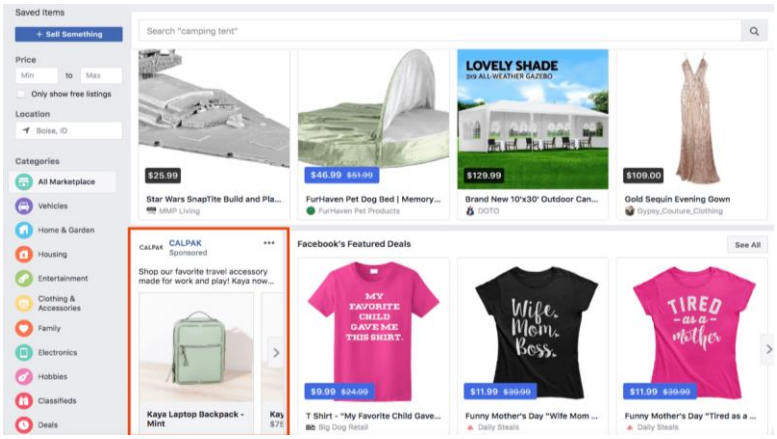
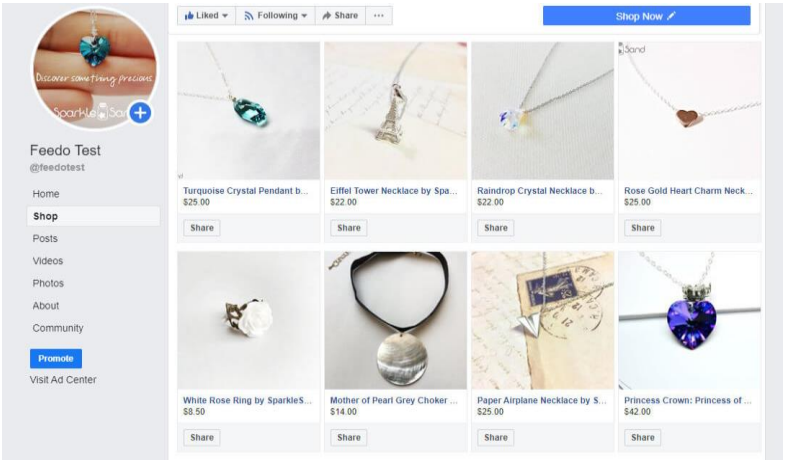


Figure 14: Shopping section on Brands Facebook[13]



Finally, brand presence can be enhanced through Facebook features such as shares and comments that can make posts appear on other Facebook users' wall/ pages (Facebook 2020). In this instance, brands can boost their Facebook post as a sponsored ad to increase

[12] Jenkins L. (2018). Facebook Ads: The Ultimate Guide for Businesses. Social Media Examiner. <https://www.socialmediaexaminer.com/facebook-ads-facebook-advertising-guide-for-marketers/>

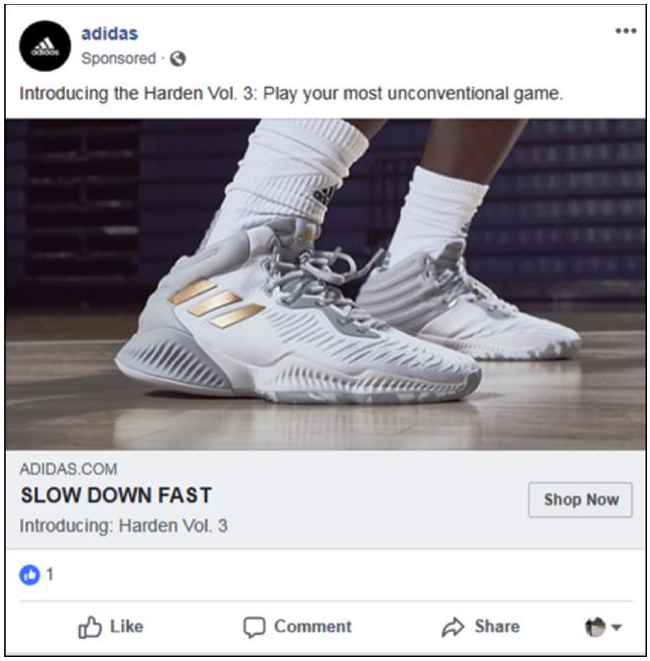
[13] Rozien B. (2020). Facebook Marketplace is Open for Businesses Selling New Products. Search Engine Land. < https://searchengineland.com/facebook-marketplace-is-open-for-businesses-selling-new-products-335287 >

awareness and lead to their website (Figure 14). Therefore, Facebook insights such as **actions on the page, shares, likes, views, reaches and sales** can assist to determine the brand's presence component of physical availability (Facebook 2020).

Considering the above, the following keywords will be considered in this thesis:

> *Actions on Facebook page; Facebook shares; Facebook likes; Facebook views; Facebook reach; Facebook sales.*

Figure 15: Facebook sponsored ad[14]



2.3.4.4 Instagram

Instagram is a photo and video sharing platform embraced by many small and large businesses to increase online brand presence. About 80% of accounts follow at least one business on Instagram and about 200 million users visit one business account every day (Kellogg 2019). As seen in Figure 16 brands use tactics like shopping tags, which enable consumers to click the image to display product information (including the price) (Boyle n.d.; Instagram 2019). Shopping tags can also be integrated into sponsored ads to boost reach and encourage purchasing within the app. Finally, Instagram Checkout launched in

[14]Adidas. (2021). Adidas Facebook Page. Facebook. <https://www.facebook.com/adidas/>

2019 allows users to purchase a product without leaving the app. Figure 17 (below) demonstrates how consumers can be led to the Checkout. The tool has now entered mainstream and has extended its services to more brands (i.e., small brands) and into more countries (e.g., Australia), with many brands reporting increases in exposure and sales (Warren 2020).

Figure 16: Instagram posts with tags[15]

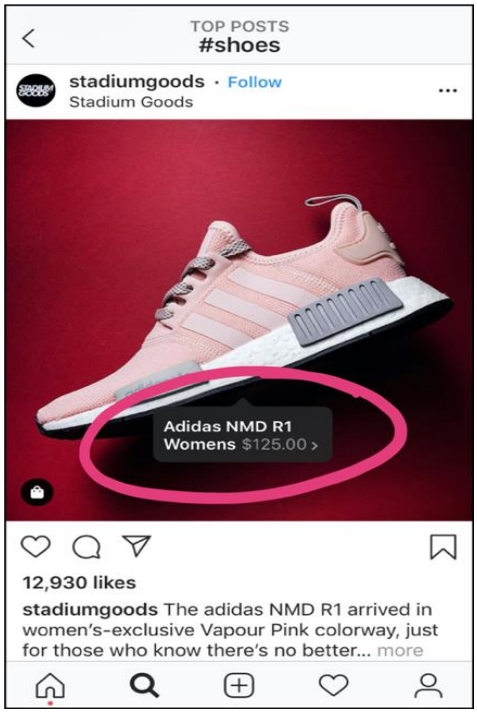
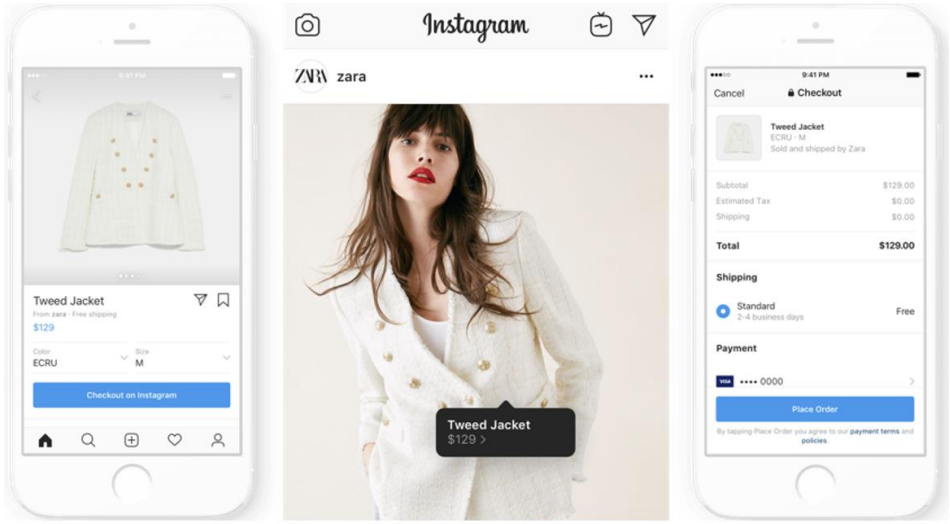


Figure 17: Leading consumers to Instagram checkout[16]



[15] Sharelov. (2020). The Ultimate Guide to Instagram Shopping for Brands 2020. Sharelov. <https://blog.sharelov.com/instagram-shopping-guide-to-selling-on-instagram/>

[16] Constine J. (2019). Instagram Launches Shopping Checkout, Charging Sellers a Fee. TechCrunch. <https://techcrunch.com/2019/03/19/instagram-checkout/>

Instagram also has a 'Shop' tab, where consumers are able to search and purchase a variety of products (such as clothing or home décor) all within the Instagram app (Canning 2019). Similar to a website, brands can create collections to organise products into such as different themes, like new arrivals and trends. Through this feature, consumers are able to see the product details for instance price, material and size. Instagram Shop also offers a "Watch and Shop" feature using IGTV, which allows managers to showcase the brand and its products to users (Perez 2020). On top of that, consumers can still shop from the business page or story, or through the explore/discovery section. These techniques all enhance online brand presence. In addition to the above, brands can show products in real life using Instagram stories, IGTV and Reels (see Figure 18) (Canning 2019). Instagram Stories and IGTV typically attain links or swipe up functions to redirect users to a website (Boyle n.d.). Brands can include shopping tags via the product stickers on Stories, with one click sufficient to redirect them to the online store or page (Figure 19).

Similarly, Instagram Reels is a feature that allows users to create a short 30 second video with customisable audio, text and/or filters (see Figure 19) (Instagram 2021). Brands can take advantage of Reels by promoting via influencers/content creators or creating their own content. Instagram has also announced it will be trialling a new tool called 'Badges' on IGTV and Instagram live (Freier 2020a). This new tool has the potential to increase product exposure through loyal fan base, while the follower gets to stand out and be associated with the influencer.

Analysing the words searched in the Instagram explore section (like e-commerce search engine optimisation) is a further possible brand presence measure. For example, the **position of the word search** may be checked by brands (i.e., the number of times its brand name, its products, the product category and more has been searched compared to others, such as determining the brand Coca Cola's position on Instagram when searching for the term "soft drinks"). Finally, other measures can be the number of accounts **reached** and the number of times the post has been **viewed** (Instagram 2020).

Figure 18: Instagram explore section and access to IGTV[17]

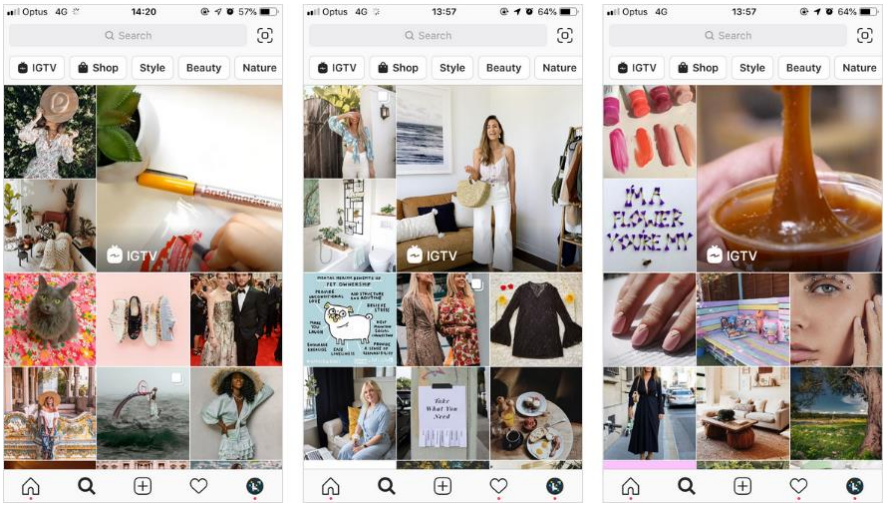
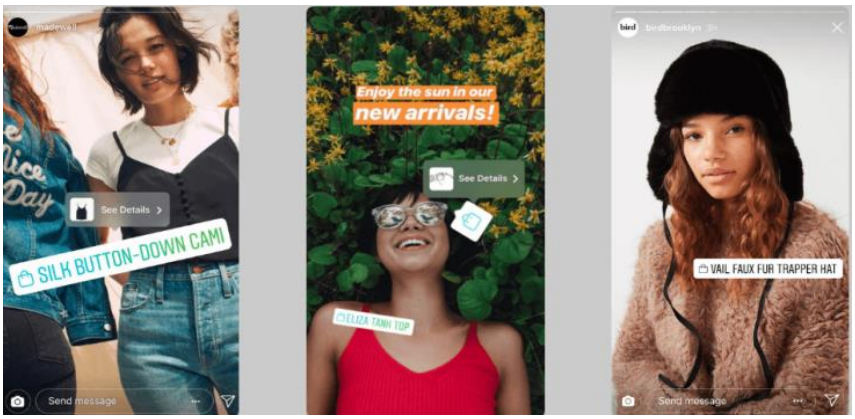


Figure 19: Instagram stories shoppable stickers[18]



[17] Canning N. (2019). The Ultimate Guide to Getting on the Instagram Explore Page. LaterBlog. < https://later.com/blog/how-to-get-on-instagram-explore-page/ >

[18] Unknown. (n.d.). Shoppable Instagram Stories: Everything That You Must Know. TaggShop. < https://taggshop.io/blog/shoppable-instagram-stories/ >

Figure 20: Instagram Reels[19]



It is apparent Instagram is a medium that can enhance brand presence. Instagram business pages will typically have an **insights** section and on face value measure the **reach, impressions, views**, **clicks** and more (Chen 2020). Although these measures are also general social media and engagement measures, they can convey brand presence as these evaluate how easily available a brand is. Accordingly, the following keywords will be added for use in Study 1 and Study 2:

> *Position of the word search on Instagram; Instagram insights; Instagram impressions; Instagram reach; Instagram views; Instagram clicks.*

2.3.4.5 YouTube

YouTube is another powerful tool in capturing consumers attention and has the capacity to help brands grow. In fact, it has been argued that more than 90% of users have discovered a brand or its products on YouTube (Google 2018). Figure 21 is an example of a common technique brands have been investing to increase product presence, for example including 'learn now' or 'buy now' buttons and banners on the advertisement that redirect to their website or digital storefront (Bauer 2020).

[19] Alexander J. (2020). Instagram Launches Reels, its Attempt to Keep You Off TikTok. The Verge. < https://www.theverge.com/2020/8/5/21354117/instagram-reels-tiktok-vine-short-videos-stories-explore-music-effects-filters >

Figure 21: YouTube Ad structure[20]

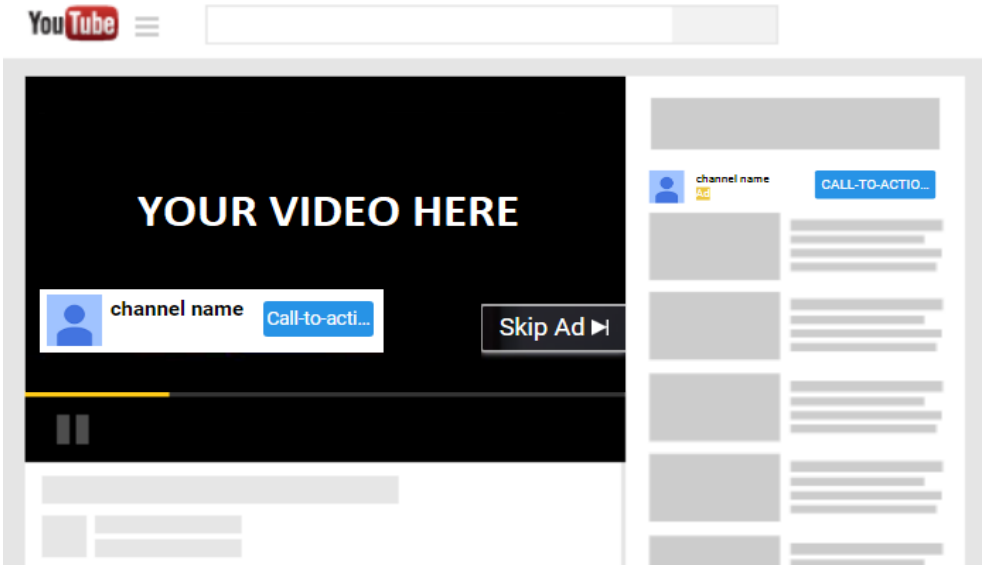
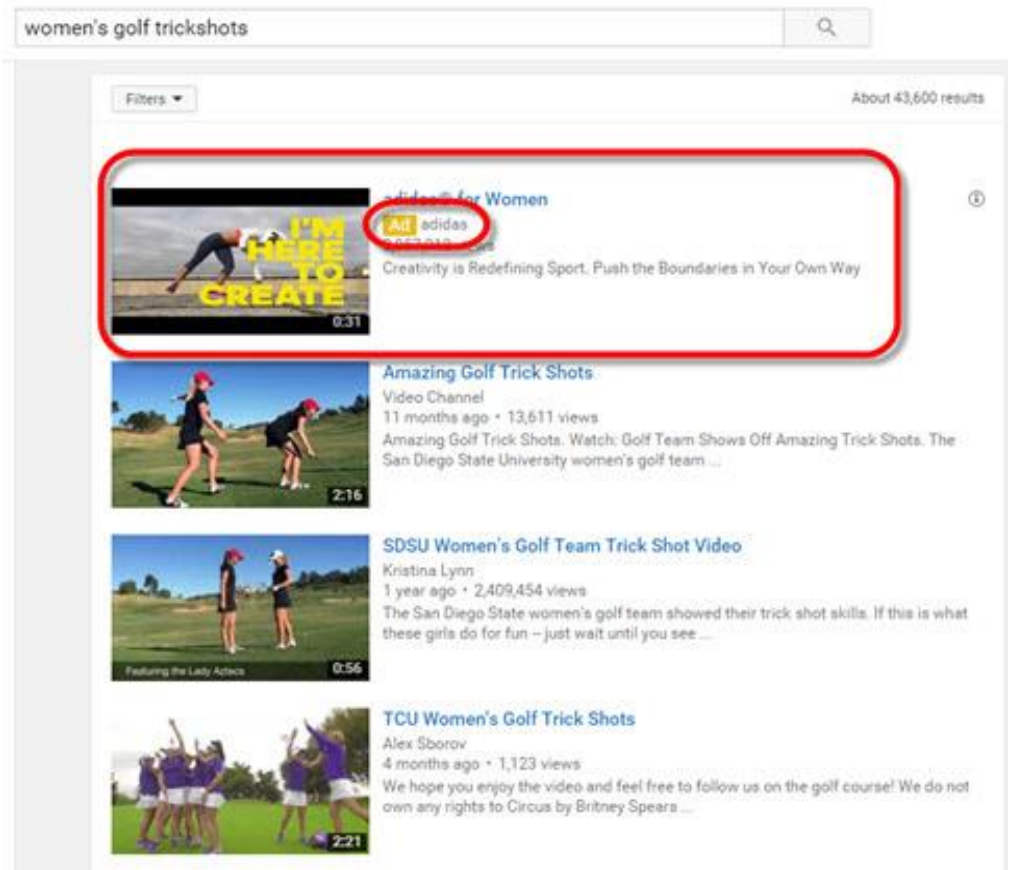


Figure 22: Adidas search engine ads on YouTube[21]



[20] Martinez J. (2018). 4 Facts You May Not Know About YouTube Ads. Granular. < https://granularmarketing.com/4-facts-you-may-not-know-about-youtube-ads/ >
[21] Unknown. (n.d.). Paid Video Ads. Search Engine Marketer. <https://searchenginesmarketer.com/ppc/paid-video-ads/ >

Brands such as Adidas can invest in display advertisement that enforce their position to the top YouTube search engine (Figure 22). Similarly, standard online advertising tools such as Ad Words can further enhance the brand online presence. In 2021, YouTube piloted a live stream shopping experience whereby the audience were able to directly purchase from content creators and influencers through their live stream videos (Hutchinson 2021). In the future YouTube plans to extend this service to businesses as well (Hutchinson 2021). This facility will assist increasing brand presence through accessibility and sales.

YouTube's business Analytics page contains multiple statistics to appraise the brand presence (Bauer 2020). For example, determining the **number of video views, subscribers, average watch time, interactions** and **revenue generated from the videos**. These measures show extent brand is reachable to customers. When connected with Google Analytics, brands can also determine the **placement of the videos on the search page** (Bauer 2020). This is similar to offline brand presence measure share of shelf space. Furthermore, brand managers could consider the number of clicks from the action buttons on the video advertisements. Other measurements could include analysing effectiveness of **search engine optimisation** techniques such as keywords, titles, thumbnail pics and hashtags (Bauer 2020). Accordingly, the following keywords will be considered in this thesis:

> *YouTube views; YouTube subscribers; YouTube watch time; YouTube interactions; Video revenue; YouTube video placement; YouTube search engine optimisation; Number of Clicks*

2.3.5 Research questions two and three: online brand presence measures

Existing literature shows that there are various approaches to enhance online brand presence, many of which are linked to easily accessible measures. Yet, this information is often scattered and cited in business articles, rather than documented in scholarly marketing research. Surprisingly, there is also no evidence-based inventory of the online presence measures for managers and academics to refer to. Which is the focus of this thesis.

Along with establishing offline and online presence measures, it would be also useful to determine if there are equivalent online presence measures that can be used as benchmarks. For example, determining if there is a similar online measure for all commodity value or share of shelf space. The need for such a comparison can be justified as follows. Some consumers want to touch and feel products before they buy them (González-Benito et al. 2015). Research has found if consumers are familiar with a brand and its products, they are not as hesitant to purchase from an online store (González-Benito et al. 2015). The online domain is, in fact, still considered a complimentary distribution channel, which can be a substitute for a physical store if the need arises (Wang & Goldfarb 2017). Additionally, some brand managers may acknowledge online channels are different to the selling environment in brick and mortar stores (Alba et al. 1997). For these reasons, this thesis also aims to draw some concrete parallels between online and offline presence measures, where possible. Hence, the second and third research question that this thesis will address are:

RQ2: What are the existing online brand presence measures?

RQ3: What are the online brand presence measures equivalent to the offline brand presence measures?

2.4 Research question four: practitioners' views

Various authors have examined the practical use of marketing measures, albeit not specifically considering measures linked to the concept of physical availability. For instance, Bendle et al. (2010) conducted an online survey with 194 US senior marketing managers and executives to determine the general marketing metrics they believed the most important to manage their business. The authors list of metrics was derived from Farris et al. (2006) and respondents came from various industries such as, aerospace, consumer goods, insurance, government and telecommunications. Using a 3-point scale respondents were asked 'how useful' they found each metric. Results showed that financial metrics such as net profit, margin % and return on investment were deemed most useful. Another study explored the views of Brazilian marketing managers to determine how they use various

marketing metrics and which metrics they found most relevant (Sampaio et al. 2011). The study entailed telephone interviews with 234 companies and the results revealed that customer-related metrics such as customer satisfaction and number of customer complaints were perceived to be more useful. Similarly, Clark (2000) reported the result of a mail survey with 130 US senior marketing managers to evaluate their views on performance, efficiency, adaptability and effectiveness measures. The results showed that effectiveness measures were seen as being the most important ones by managers.

In essence, it can be useful to establish which measures marketing managers value in monitoring and managing their brand (Bendle et al. 2010). This type of insight can guide other practitioners to use the right metrics, judge their performance and identify current marketing measurement trends. The same information can also assist marketing academics to set-up research programs yielding real-world relevance.

In line with above, this thesis identifies and addresses a need to establish which physical availability presence measures brand managers use in practice and highly value. This is crucial in expanding on physical availability knowledge and depicting the brand presence measures managers are aware of, use (including the frequency of use/monitoring and the reliance on any external providers or tools) and deem useful or helpful. Hence, the fourth research question this thesis will explore is:

RQ4a: What offline and online brand presence measures are brand managers aware of?

RQ4b: What offline and online brand presence measures do brand managers use, and how often do they use these measures?

RQ4c: To what extent do managers rely on external market research services and/or existing analytical tools to measure offline and online brand presence?

RQ4d: How useful do brand managers find offline and online brand presence measures?

2.5 Chapter summary

This chapter led to the establishment of multiple lists of keywords, which will form the basis and input for the systematic literature review (Study 1) and the practitioner survey (Study 2). Table 1 and Table 2 below summarises all keywords extracted. The next chapter will discuss how these keywords identified will answer the research questions.

Table 1: Keywords – offline domain

Offline keywords	**Author(s)**
Physical presence	(Moran 1990)
Retail availability	(Farris et al. 1989; Wilbur & Farris 2014)
Distribution coverage	(Reibstein & Farris 1995)
Market coverage	(Ailawadi & Farris 2017)
Aisle displays	(Moran 1990)
Product distribution	(Moran 1990)
Breadth and depth of distribution, Distribution breadth	(Ailawadi & Farris 2017; Olver & Farris 1989)
Brand coverage	(Ailawadi & Farris 2017)
In-store presence, Product availability, Retail presence	(Ailawadi & Farris 2017) (Bain Insights 2014; Brogie 2020; Gupta 2019; Vessella n.d.).
Numerical distribution, Physical distribution	(Farris et al. 2006; Reibstein & Farris 1995)
Weighted distribution, Weighted distribution points	(Farris et al. 2006; Nielsen 2018)
All commodity value, ACV %	(Reibstein & Farris 1995; Wilbur & Farris 2014)
Product category volume, PCV%	(Farris et al. 2006; Guissoni et al. 2020; Nielsen 2018)
Total distribution points	(Farris et al. 2016; Nielsen 2018)

Category performance ratio	(Farris et al. 2016)
Retail store traffic, In-store traffic, Foot traffic, Sales and foot traffic	(Ailawadi & Farris 2017; Anic et al. 2010; Ufford 2016)
Volume of shopper traffic, Customer traffic flow	(Anic et al. 2010)
Sales per square feet, Sales per square meters, Total outlet sales	(Albert 2010; Farris et al. 2016; Nicasio 2018)
Store productivity	(Nicasio 2018)
Share of shelf space Shelf space	(Waller et al. 2010)

Table 2: Keywords – online domains

Online keywords	**Author(s)**
Distribution breadth online	(Ailawadi & Farris 2017)
Digital availability	(Spence 2020)
Online distribution	(Dawes & Nenycz-Thiel 2014; Duch-Brown et al. 2017; Nenycz-Thiel et al. 2016; Ryu et al. 2019).
Multichannel distribution	(Ailawadi & Farris 2017; Verhoef et al. 2015).
Omni channel distribution	(Ailawadi & Farris 2017; Shankar & Kushwara 2020; Verhoef et al. 2015).
Cross channel distribution	(Shankar & Kushwara 2020; Simone & Sabbadin 2018)
Website page views	(Farris et al. 2016; Farris et al. 2006)
Website visits Website visitors	(Farris et al. 2016; Farris et al. 2006)
Search engine positioning	(Ailawadi & Farris 2017)
Search engine results page	(Ailawadi & Farris 2017)
Digital shelf, Digital shelf presence	(Rivard 2014)
Conversion metrics Website clicks	(Ailawadi & Farris 2017)

Product category search volume	(Ailawadi & Farris 2017)
Website reach Website frequency	(Farris et al. 2016; Farris et al. 2006)
Share of search	(Swift 2020)
Price comparison sites , Comparison shopping engines	(Hayes 2019)
Virtual store front	(Hayes 2019)
Benchmark Product Price Difference	(Hayes 2019)
Gross merchandise value	(Ailawadi & Farris 2017; Maia 2020)
Product reach	(Ailawadi & Farris 2017)
Website keyword ranking	
Click through rate	
Website impressions	
Number of website orders	
Purchase rate Brand sales	
In-app purchases	(Rosmarin 2020)
App store optimisation	(App Radar 2021)
App store marketing	(App Radar 2021)
Mobile app SEO	(App Radar 2021)
Number of app downloads Number of app installations	(App Radar 2021)
Brand app ranking	(App Radar 2021) (App Annie 2021)
Brand app keywords ranking	(App Radar 2021)
App performance	(App Radar 2021)
Number of active app users Average revenue per app use	(Farris et al. 2016; Farris et al. 2006)
Social media marketing	(Chen 2021; York 2020)
Social media engagement measures	(Chen 2021; York 2020)

Social media impressions Social media page reach Social media page views Follower engagement	(Chen 2021; York 2020)
Actions on the social media page	(Facebook insights 2021)
Social media redirects	(Chen 2021)
Promotional videos Vlogs	(Chen 2021; York 2020)
Facebook/Instagram/YouTube Insights Impressions Interactions Clicks Shares Likes Sales Video revenue	(Boyle n.d.; Chen 2021; York 2020)
YouTube watch time YouTube video placement YouTube search engine optimisation	(Bauer 2020; Chen 2021; York 2020)

Chapter 3

3 Methods

3.1 Chapter overview

This chapter discusses the analytical processes and tools used to address the research objectives and research questions introduced in Chapter 2. Firstly, to support Study 1, Section 3.2 provides a background to the importance of systematic literature reviews, starting by discussing what a literature review is, how it has been applied in past research and the benefits of including systematic literature reviews in marketing studies. The section also justifies why a systematic literature review is needed to reach this thesis research objectives. Section 3.3 describes in detail the systematic literature review method, and how it assisted answering the research questions (RQ1, RQ2 and RQ3). Secondly, to support Study 2, Section 3.4 provides details of the methods used for the primary data collection (online survey) and data analysis. This adds robustness to the findings of the systematic literature review and answers RQ4. In particular, Section 3.4 presents the details of the practitioners' survey design, participant recruitment process, survey administration, and data analysis approach.

3.2 Study 1: systematic literature review (SLR)

3.2.1 What is a systematic literature review

A *systematic literature review* (hereafter SLR) is a quantitative approach that can detect the most important scholarly outputs on a particular topic and demonstrate the links between those outputs, while minimizing researcher bias (Fetscherin & Heinrich 2015). SLRs can be deemed more guided, clearer, scientific and robust than standard literature reviews (Tranfield et al. 2003). A standard literature review (also referred to as narrative or traditional literature review) is a summary or overview of the current research to help assess the research field and identify the research gaps (Snyder 2019). A standard literature reviews are essential in academic research for gaining understanding of the current

knowledge and state of a field (Cropanzano 2009; Kunisch et al. 2018). Therefore, it is not surprising to see high reliance on literature reviews in business and related areas such as marketing (Linnenluecke et al. 2020).

On the other hand, SLRs are based on information gathered from more than one database and, more broadly, a diverse pool of sources of bibliometric information (Aria & Cuccurullo 2017; Tranfield et al. 2003). As a well-established technique applied to search, appraise, and collate relevant evidence to help deliver a comprehensive overview of existing academic research on a particular topic, SLRs can answer clearly formulated research questions (Dewey & Drahota 2016). To summarise, a good SLR involves: *transparency* (all available and relevant sources are recorded), *clarity* (a clear description of the methods deriving to sources), *integration* (helps inform both theory and practice), *focus* (presents a relationship between the research question(s) and primary sources found), *equality* (methodology reduces bias where possible and sources independently reviewed), *accessibility* (method is made available for others to access) and *coverage* (uses a broad range of databases covering a variety of places and publications forms) (Thorpe et al. 2006).

3.2.2 Advantages of systematic literature review

Table 3 below summarises some of the advantages and disadvantages of conducting SLRs (Aria & Cuccurullo 2017; Fetscherin & Heinrich 2015; Haustein & Lariviere 2015; Holden et al. 2005; Moher et al. 2009; Tranfield et al. 2003)

Table 3: Advantages and disadvantages of SLRs

Advantages	**Disadvantages**
SLR considered to be a more evidence-based approach to synthetising knowledge than a standard, narrative literature review.	May overlook grey literature (e.g., reports or working papers).
Reduces bias in the identification, selection and analysis of the scholarly outputs.	May miss out on key sources, if there is a misspelling or different spelling of a keyword in a paper.
Makes it easier and efficient to navigate, interpret and synthesize the literature in an accurate and reliable way.	Sources may need to be scanned and edited before uploading into the data frame or bibliometrics software. For example, some sources may not be of high quality/ reliable or have papers in an irrelevant research area.
A suitable scientific and robust method to develop knowledge on a specific topic or research area, that is yet to be fully established.	Searches for a topic too broad can pose issues in finding correct information.
A replicable and transparent process.	Relies on databases that support the keywords and have papers with those keywords.
Refines searches and look at a certain timeframe.	Can be time consuming.
Highlights the key publications/contributions and authors.	
Provides structure to the voluminous literature.	
Provides visual representation of the literature, thus making it easier to comprehend the results	

In essence, conducting SLRs yield various advantages relevant to the aims and focus of this thesis. First, SLRs typically return great scope and depth of information, as they imply collating literature and academic articles from multiple databases (Tranfield et al. 2003). Specifically, when using SLRs researchers do not need to rely on snowballing or on their individual knowledge to find sources (Armstrong & Reibstein 1985). This approach reduces bias in the location, access of the sources, and reporting of the findings (Fetscherin & Heinrich 2015; Gurzki & Woisetschläger 2016). Second, SLRs can be useful when dealing with voluminous, fragmented and/or controversial research streams (Aria & Cuccurullo 2017). Third, SLRs represent an evidence-based and structured research approach to identify and understand a research field of interest (in regard to this thesis, research concerning the presence aspect of physical availability in offline and online contexts),

mapping the current state of scholarly work, inherent gaps and, as appropriate, answering specific research questions.

Moreover, disadvantages of SLR include overlooking certain literature and papers with alternative titles or keywords. Secondly, a reliance on databases to provide the relevant papers and, finally undertaking bibliometrics or a SLR can be a time-consuming process.

3.2.3 SLRs in the marketing literature

SLRs have been applied in many marketing studies published in leading and reputable journals, addressing research aims and questions similar to the ones presented in this thesis. For example, Arrigo (2018) conducted a SLR analysing the current state of the literature of social media in luxury brands. The study used three online databases: ScienceDirect, Scopus and Web of Science the author searched documents using the keyword "social media marketing", across research outputs published between the period 2010-2016. This process showed an overview of the research on social media marketing and its inherent limitations. Martínez-López et al. (2018) presented a SLR performed through *bibliometric analysis* - i.e., a statistical and evidence-based analysis of publications and articles (Fetscherin & Heinrich 2015) to provide an overview of the leading marketing research trends in the European Journal of Marketing between 1967 and 2017. The process resulted in an in-depth appraisal of the most productive authors, institutions, countries and of the most cited articles along with the most common keyword, which was "consumer behaviour". Similarly, Fetscherin and Heinrich (2015), using SLR aimed to understand consumer brand relationship and the evolution in the last few years. In particular, the authors focused on understanding the literature and universities that contributed to the research area. The study gathered various output including tables and citation maps to provide a clear overview of the field. These examples illustrate the depth of information that can be gathered using systematic reviews, especially to examine present and future trends in relevant fields such as marketing.

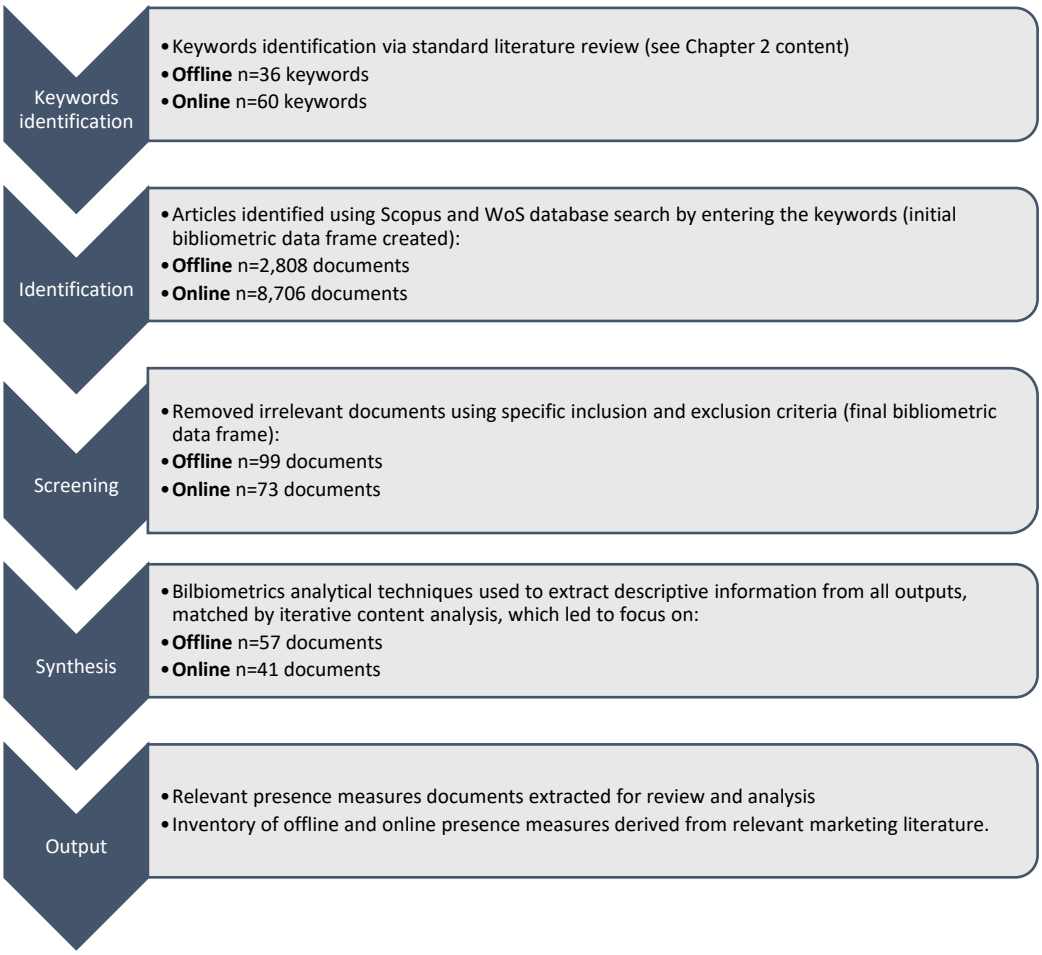
As mentioned previously, SLRs can also help answer research questions, rationalise existing measurements for a particular concept and help advance the field. For instance, Vieira et al. (2015) presented a SLR underpinned by bibliometric analysis to determine if food

packaging influences buying behaviour. While Han et al. (2020) conducted a SLR to identify a framework to explore the link between supply chain resilience capabilities and performance metrics. The authors gathered 153 papers between the years 2003 to 2019. The study used various databases such as Emerald, Taylor & Francis and Wiley online. The authors derived an inventory of 11 performance metrics and their own capability-performance framework.

Considering the studies summarised so far, there is a clear scope for using SLR as a method for this thesis to create an inventory of presence aspect of physical availability measures. The next section will explore how this thesis undertakes the SLR.

3.3 Systematic literature review approach (Study 1)

Figure 23: Systematic review procedure



As portrayed in Figure 23 (above), the first step was the identification of **keywords** related to brand presence through conducting a standard literature review (Chapter 2). 36

keywords for offline presence and 60 keywords for online presence were identified through this process (refer to Chapter 2 summary), which formed the inputs to the SLR. Secondly, all keywords were inserted into Scopus (www.scopus.com) and Web of Science (www.clarivate.com) **databases** to identify a repository of relevant bibliometric sources. Specifically, all relevant scholarly literature (journal articles), business industry articles and unpublished articles were automatically collated into a single initial bibliometric **data frame**, inclusive of sources available between 1990 – 2021, a time span mirroring most current marketing tactics surrounding physical availability. The process took place between February 2021 to July 2021 and resulted in a total of 2,808 documents regarding offline brand presence and 8,706 documents regarding online brand presence documents, which were managed through a literature reference management software called JabRef®. That is, the documents were screened to remove any duplicates and irrelevant sources in relation to the presence aspect of physical availability. This was achieved by examining each source title, abstract, keywords and reference list.

Thirdly, the sources identified were screened to determine those related to the research vs. irrelevant data. Table 4 shows the exclusion and inclusion criteria embraced. Besides the thesis author, a second independent reviewer (a research assistant) undertook the same process to reduce unconscious bias. Both lists were compared and there was 90% agreement on the documents to be included in the final bibliometric data frame. A third reviewer (a senior researcher) made the further cut of sources. Both reviewers attained some understanding of the topic and concept. Thereby, the original 2,808 documents for offline were reduced to 99, and 8,706 documents for online were reduced to 73. The final list formed the basis for the knowledge synthesis, which entailed extracting information regarding physical availability and brand presence conceptualisation and measurements.

Table 4: inclusion and exclusion criteria

Inclusion
• Sources about Physical Availability (PA) / Distribution • Sources about Presence aspect of PA (including measures) • Marketing related articles • Sources written in English • Sources in all forms (e.g., conference papers, books or opinion pieces)

Exclusion
• Sources NOT about PA or Presence • Sources in services sector (e.g., banking or tourism) • In journals NOT marketing related (e.g., sustainability or sports)

The synthesis led to a further reduction of the bibliometric data frame, through a combination of bibliometric analysis techniques and iterative content analysis, thus following the same approach as recent integrative reviews of marketing knowledge (Stocchi et al. 2021). This process led to focusing on a total of 57 offline documents and 41 online documents, which possessed adequate detail to create the list of offline and online presence measures (i.e., to answer RQ1, RQ2 and RQ3).

To add robustness to the findings of Study 1, this thesis used the Bibliometrix software to peruse the relevant academic sources and to extract descriptive information about these sources. The Bibliometrix software is useful to create various visual outputs (e.g., graphs, maps and tables) featuring qualitative and quantitative information. In more detail, **Bibliometrix Package installed in the R-Studio software** and the **Biblioshiny web-based dashboard** (Figure 24 and Figure 25) were employed to understand a research field and address research questions linked to that field (Aria & Cuccurullo 2017).

Figure 24: Bibliometrix dashboard

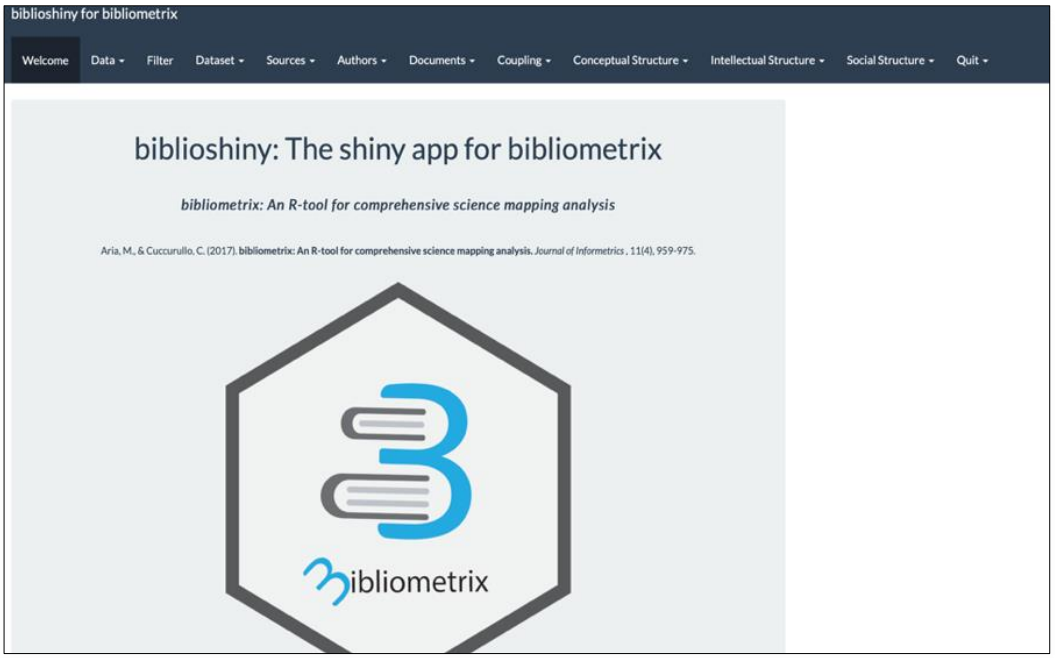
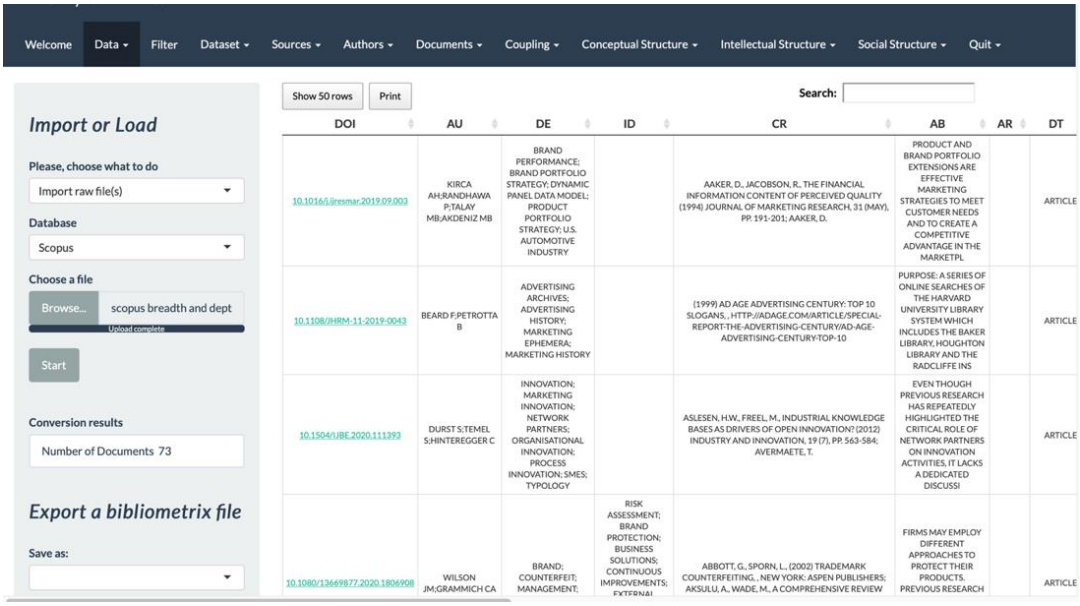


Figure 25: Bibliometrix overview table and menu bar



For this thesis, the outputs of interest include a table providing an overall description of sources, top journals and top keywords. The top journals represent where the most relevant journal documents are published in. The top keywords present the top occurring words in authors documents. A frequently occurring keyword by various mentioning authors, illustrates the keyword's strength and importance. It can also determine developing trends in the research field. Furthermore, to help understand the top keywords, the co-occurrence network diagram elaborates the relationships between concepts or keywords. The size of the node implies the number of occurrences of the keyword by the authors in the document. The lines connecting the nodes together illustrate the relationship between the keywords. The different coloured nodes represent different clusters of themes. The detailed bibliometrics analysis output feature Chapter 4 and answered the first three research questions of this thesis (RQ1, RQ2 and RQ3).

3.4 Study 2: Survey method and data collection procedure

3.4.1 Research design

To bring theory and practice together, Study 2 aims to understand which presence measures practitioners are aware of and use to examine their brand presence (including usage frequency), the extent to which respondents outsource or rely on external providers (e.g., market research companies or online analysis tools) and perceive to be most useful.

These aspects were appraised through an online survey targeting a broad sample of respondents across different organisations, markets and in different geographical locations. Online or web-based surveys are useful because of their speed, low cost and economies of scale in data collection (Dilman et al. 2014). In particular, responses can be collected from a large sample of individuals, across diverse locations and in a short time period. Furthermore, participants can complete the survey at a time convenient to them and on varying devices.

However, it can be crucial to consider various design, implementation, and distribution aspects of online surveys. For example, compatibility with mobile devices, survey functionality or flow, question readability, user friendliness and survey length. All these aspects ensure the participants fully complete the survey, reducing abandonment rate. Moreover, gathering a large sample of participants is beneficial to gauge an accurate representation of the phenomenon being investigated. Taking these points into consideration, a pilot study was conducted with two industry experts before fully launching and recruiting respondents to help identify any issues such as, survey flow and design. The process resulted in refinement and streamlining of the survey questions and structure. The final copy of the survey distributed is included in the Appendix (Appendix B).

3.4.2 Ethics approval

Before the data collection could take place, a formal proposal of the research was sent to the University of South Australia's Human Research Ethics Committee for approval. The application contained information explaining the study aims, information that will be gathered, respondent rights, recording and storage of information, and the benefit of participating. The participant information sheet was attached to the survey for participants to read and understand the purpose of the research (Appendix A). Survey conditions had to be accepted to participate in the research. Ethics approval (no. 042-2021) was gathered in July 2021.

3.4.3 Recruitment and questionnaire administration

An online software, Qualtrics (www.qualtrics.com) assisted in programming and administering the online survey. Potential participants were provided an electronic link during the recruitment process. Data was collected between October and December 2021. The survey duration was about 15-20 minutes to minimise respondent fatigue.

Study 2 used a non-probability, purposive sampling method for data collection. That is, the sampling process selected participants based upon their understanding of the topic and experience in brand management (Battaglia 2008). The opportunist sampling approach was also used to enhance the sample size by collecting data from individuals that have personal networks unknown to the researcher, but who may provide relevant information to the topic (Bryman 2015). Furthermore, snowball sampling was used, since participants were invited to nominate individuals they believed to meet the criteria or could help with the research (Bryman 2015).

The target sample included marketing practitioners involved in the decision making and monitoring of consumer good brands in physical and/or online stores. Participants were identified from the Ehrenberg-Bass Institute's list of Corporate Sponsors. Ehrenberg-Bass Institute is a large non-profit research institute based at the University of South Australia. The Institute has a large network of marketing industry contacts around the world and the survey was personally emailed to many key contacts. The key contacts were also invited to forward the survey to internal and external contacts they believed might assist in the research. After 14 days the number of responses was evaluated to establish if the target sample size (n=100) had been reached, and a reminder email was sent out to Corporate Sponsors about the survey.

The survey was also distributed via an online professional networking social media platform, LinkedIn (www.linkedin.com) to gather additional responses with wider reach. The survey link was initially published on the thesis author's personal profile and then shared by various marketing professionals including senior Ehrenberg-Bass Institute staff. The original post received over 900 views and 25 shares by the end of the data collection period. Furthermore, the LinkedIn post was shared on various business-related LinkedIn

groups to increase the reach and awareness of the research. Two reminder LinkedIn posts were posted to encourage and prompt participation in the survey. Again, individuals were asked to forward the survey link to suitable contacts.

3.4.3.1 Data description

Data collection ended in December 2021 and the original set of responses (n=290) was filtered to remove any data point that did not satisfy the following criteria:

- Respondents selecting 'no' or 'prefer not to say', in asking if the brand they manage is a consumer goods category.
- Respondents did not select the correct definition of Presence in the 'test'.
- Respondents selected 'no' or 'unsure/ don't know' to managing the brand in physical store AND the brand is sold online.
- Respondents selected 'no' or 'unsure/ don't know' to tracking and measuring brand performance in physical stores AND the brand is sold online.

The final sample of valid responses comprised of 51 respondents (18% response rate). While the response rate was relatively low for a quantitative study, this sample size is not uncommon among research conducted with practitioners, particularly within the retail industry (Moore & Fairhurst 2003; Conant & White, 1999). Out of the 51 participants, 58% of the surveys were fully completed and another 42% answered at least 70% of the survey. The partially completed surveys were included in the thesis as their answers contributed to what presence measures practitioners use. All data analysed in this thesis used the final sample size (n=51), unless noted otherwise.

3.4.4 Main questions and key research measures

The survey consisted of a total of 31 questions (including screener and demographic questions). The following sections describe the structure of the survey and related key research measures. Screener questions were included to ensure participants were suitable to assist in the research and had prior knowledge about brand presence and physical availability. Firstly, respondents were asked to confirm the brand they managed was a consumer good brand and specify the brand category (e.g., soft drinks). Then, a definition

of physical availability and the presence element of it was provided. Participants were provided a multiple-choice question and were asked to choose which they believe best represented presence (see Appendix B). Those that selected the correct definition advanced through the survey. Respondents that selected the incorrect definition were provided another attempt. Respondents exited from the survey if they selected the incorrect definition twice.

Respondents were also asked to specify if the brands they managed were available in a brick or mortar store (own store or in other stores) and/ or in an online store (own or via third party channels), and if they monitored or tracked brand performance across these channels. Results showed nearly a third of the remaining respondents (27%) did not sell through an offline store or measure offline brand presence, and nearly one in five (17%) did not sell through an online store or measure online brand presence. These respondents were removed from the sample. If the answer was yes to either question, respondents were directed to the main questions of the survey, as follows.

3.4.4.1 Unprompted questions

The main questions of the survey asked an unprompted question to allow respondents to elicit presence measures from their memory. Specifically, respondents were asked, "Please indicate the offline physical availability (presence) measures you can think of?". A similar question was structured for online brand presence measures. The questions were open ended for participants to type in their own responses. The unprompted questions test participants' top of mind and recall of presence measures (Hakala et al. 2012; Laurent et al. 1995; Romaniuk 2006). This technique also establishes if there are similarities between the unprompted and prompted answers for various brand presence measures that are being used by practitioners (Romaniuk 2006), essentially measuring respondents' awareness of presence measures (helping answer RQ4a). The unprompted verbatims or text responses were examined by carefully analysing the responses and allocating a unique numbered code. Responses with the same or similar measure names were provided a same coded number. That is, any respondent stating ACV (all commodity volume) was coded 1. The coded responses were counted and ordered by most to least common measure

recalled. This determined the offline and online presence measures respondents were aware of when unprompted.

3.4.4.2 Prompted questions

Next, the survey introduced prompted questions to assist respondents' memory. For example, respondents were asked; "Please select all the offline presence measures you are aware of?" (a similar question was structured for online presence measures). The measures listed in these questions were those identified in Study 1. That is, respondents were shown a randomised set of offline and online presence measures (presented separately, for clarity) with definitions and could select as many measures as possible they were familiar with. The responses were analysed through descriptive statistics with the key focus on frequencies and mean scores. The mean scores were compared against the average mean value, to determine which brand presence measures respondents were aware of.

In more detail, the prompted offline measures that were identified from the keywords in this thesis and Study 1 results, included:

- Numerical distribution
- All commodity volume
- Product category volume
- Total distribution points (total distribution)
- Category performance ratio
- Breadth of distribution (number of SKUs or inventory)
- Out of stocks (duration of OOS or shelf stockouts)
- Store traffic (foot traffic)
- Store sales volume (total outlet sales)
- Store shelf space (share of shelf or shelf space allocation)
- Distance (distance between competing stores).

The prompted online measures established and deployed in the survey were:

- Website page views (or page impressions)
- Website visits (website visitors)

- Website conversion (conversion rate)
- Search engine results page
- Product category search volume
- Share of search
- Benchmark product price difference
- Gross merchandise value
- Mobile website page views
- Mobile website visits (visitors)
- Mobile search engine results page
- Mobile product category search volume
- Mobile share of search
- Number of app downloads (app installations)
- App ranking
- Number of active app users
- Social media brand page reach
- Social media brand impressions
- Social media brand engagement or insights
- Share of voice on social media

3.4.4.3 Current managerial approach

Following on, respondents were asked: “Please select the offline presence measures you use to manage your brand.”, displaying the same offline presence measures as in the previous set of questions and enabling respondents to select all measures that applied to them. Similarly, respondents who monitored their online presence were asked: “Please indicate if you use any of these online presence measures to manage your brand’s own or third-party channels”. The data was analysed through descriptive statistics such as frequencies and mean scores. Again, comparing the responses against the average mean providing insight into which measures respondents used for managing their brand (answering RQ4b).

To gather further understanding and usage patterns, the survey also evaluated how frequently (ranging from daily to yearly) respondents monitored their offline and/or online presence measures. An option 'I don't monitor this measure' was provided to count respondents that did not monitor any of the measures. The results were examined through descriptive statistics, in particular calculating frequencies and tables to establish the overall frequency use of the measures (also answering RQ4b).

Respondents were then asked to indicate whether they relied on an external market research providers for any of the measurements for offline presence (e.g., Nielsen or Ipsos), and whether they measured online presence using an online tool such as Google Analytics. In instances whereby respondents indicated that they monitored presence (offline or online) through external sources or tool, respondents were also asked to specify the market research provider or tool used, selecting from a list of common options. This was primarily examined through frequencies and mean scores, comparing against the average mean. An 'other – please specify' and 'unsure/ don't know' option was also included. To analyse the responses, the verbatims or text responses were coded and counted. This assisted in establishing the 'other' tools practitioners use to examine their offline or online presence. Furthermore, for online brand presence, respondents were asked to clarify if they relied on in-built analytics or analytics that are already on an internal website, mobile app or social media platform. These questions aimed to understand whether respondents use internal or external sources to measure presence (assisting to answer RQ4c).

3.4.4.4 Usefulness

To understand how brand managers used and valued the offline and online measures, respondents were asked to rate on a scale of 0 (extremely unhelpful) to 10 (extremely helpful) how useful they found each measure. An 'unsure/ don't know' option was also provided. This was examined through descriptive statistics, calculating mean scores, and aimed to ascertain how useful the respondents found the respective measures (RQ4d).

3.4.4.5 Additional measures

To gather additional information that could further expand the findings of Study 1, the survey subsequently asked respondents the question: "Do you use any other offline (online) measures not mentioned above so far?". This was an open-end question and

provided 5 text boxes for participants to write their answer. The verbatim answers were carefully analysed and each response was provided a number code (based on the name of the measure). The codes were counted and ordered from most to least common, providing additional information on the other measures used in practice not included in the survey. These measures were added into the inventory of presence measures and in the final conclusions for this thesis.

3.4.4.6 Demographic profile

To profile the sample, the survey finally asked demographic questions surrounding the country/ countries participants manages their brand in, their job title/ role, length of time working in the industry, company sales, market share and number of employees. This was primarily assessed through descriptive statistics. Table 5 presents the key demographic data and represents the fully completed surveys (i.e., have completed all 31 questions in the survey) (n=30).

Table 5 web-based survey key demographics

Demographic	**Category**	**Sample (%) (n=30)**
Company role	Marketing manager	33
	Brand insights	27
	Brand manager	20
	Other	17
Country	United Kingdom	23
	Australia	17
	Global	13
	Other	47
Market share	0%-19%	40
	20%- 39%	23
	40%-59%	23
	60%+	0
Annual revenue (USD)	$100K - $999K	9
	$1M - $49M	31
	$50M - $999M	20

	$1B and over	23
Marketing experience	1-5 years	13
	6-10 years	17
	10 years +	67

*Results excludes the unspecified/ prefer not to say responses

Although the sample size is small, there was diversity in demographics among respondents. This assists in the generalisability of the results. One in three respondents were a marketing manager, with brand insight managers and brand managers not far behind. The most representative country was the UK, but the sample also showed managers of global brands. 40% of respondents managed a relatively small brand (although this information is clearly relative to the markets, with many goods markets being highly fragmented) and more than half the sample coming from firms with annual revenues of less than a billion US dollars. Nonetheless, the sample was clearly skewed toward tenured positions, with nearly 70% of respondents claiming that they have been in the industry for more than ten years. These respondents could have greater knowledge about the specifics of presence and offline physical availability. While respondents newer to the industry may be more familiar with the use of online and the trends.

3.4.5 Data analysis approach

To answer the research question four, this thesis used simple descriptive statistics (e.g., frequencies and mean scores) and analyses using SPSS and Excel, due to the small sample size (n=51). The thesis also used Ehrenberg's (Ehrenberg 1994, 2000) simple data reduction guidelines to formally present the data. These included approaches for the presentation of descriptive results inducive of 'pattern-spotting' such as: ordering the rows and/or columns by size, rounding figures to significant digits, providing averages as a visual guide, and using a table layout and graphs for easy readability and interpretation. Furthermore, Pearson correlation coefficients were used to determine any potential strong correspondence between variables (e.g., measure awareness and usage). A correlation closer to positive or negative one suggests a strong association and linear relationship between two variables (Taylor 1990). A positive correlation indicates an increase in one variable will lead to an increase in the other variable. The use of simple correlations is preferable over formal

statistical tests, given the risk of Type II errors when running tests on small samples (Field 2018).

3.5 Chapter summary

This chapter outlined the data collection procedures, questionnaire structure and the data analysis process for Study 1 and Study 2. Firstly, in support to Study 1, the chapter defined SLRs, clarifying the advantages over standard literature reviews, given their more scientific and less biased nature (Fetscherin & Heinrich 2015; Gurzki & Woisetschläger 2016; Tranfield et al. 2003). Hence, the chapter justified the use of a SLR for Study 1 of this thesis to address the first thesis aim.

Following on, the chapter explained the analytical steps undertaken for Study 1 and 2, respectively. Study 1 assisted in answering RQ1, RQ2, and RQ3. It took the form of a multi-step SLR conducted between February to July 2021 and based keywords identified from Chapter 2 to insert into Scopus and Web of Science databases. This resulted in a large bibliometric data frame, which was reduced to a total of 172 sources synthetised to create the list of presence measures. To add robustness to the conclusions of this thesis, Study 1 also entailed the use of software for bibliometrics analysis to extract thematic outputs complementing the synthesis of the relevant bibliometric data.

Study 2 involved gathering and analysing data from an online survey, which assisted answering RQ4 and satisfying the second research objective of this thesis. Participants were recruited to assist in the investigation of managerial awareness, use and perceptions of the collection of offline and online brand presence measures derived from Study 1. The final sample size was 51 and the data was explored primarily through descriptive statistics, looking for patterns and relevant information instrumental to RQ4 and the thesis aims.

Chapter 4

4 Results

4.1 Chapter overview

This chapter presents the results of Study 1 (systematic literature review) and Study 2 (practitioner survey), as follows. Section 4.2 presents the final list of offline and online brand presence measures, including the potential corresponding measures linking the evaluation of physical availability across these two domains. The list and the comparison, as explained, address RQ1, RQ2 and RQ3 satisfying the first research aim of the thesis. Section 4.3 showcases Study 2's key results obtained from the practitioner survey, answering RQ4 and satisfying the second research aim of this thesis.

4.2 Study 1: Systematic review results

4.2.1 Offline brand presence measures (RQ1)

Study 1 returned a bibliometric data frame comprising of 57 documents; 49 were articles (85%), six conference papers (11%) and two reviews (4%). These outputs were published in 39 different sources (e.g., journals and books). Table 6 shows the most prominent sources of bibliometric data points, including the International Journal of Retail and Distribution Marketing, the Journal of Retailing and the Journal of Retailing and Consumer Services. Although these are leading marketing journals with a clear focus on retailing, the diversity of these sources signifies low publisher bias on the topic of interest (the brand presence element of physical availability).

Table 6: Bibliometrix offline measures, top ten citing journals

Sources	Articles (#)
International Journal of Retail and Distribution Management	3
Journal of Retailing	3
Journal of Retailing and Consumer Services	3
Manufacturing and Service Operations Management	3
Marketing Letters	3
Production and Operations Management	3
International Journal of Production Research	2
International Review of Retail Distribution and Consumer Research	2
Journal of Marketing Research	2
Journal of The Academy of Marketing Science	2
Other journals	31
Total	57

The bibliometrics results show the most cited document was Broniarczyk et al. (1998) (314 citations), followed by Ailawadi and Farris (2017) with 174 citations (Table 7). It is noted five out of the 12 offline brand presence measures (see Table 9) were cited in Ailawadi and Farris (2017). Broniarczyk et al. (1998) the most cited author, is a 24 years old study and primarily discusses consumer perceptions about product placement. Ailawadi and Farris (2017) have most cited document per year (34 citations), followed by Broniarczyk et al. (1998) (13 citations). In this instance, there is some clear bias toward seminal research; these highly cited studies are sometimes quite dated (therefore possibly do not fully capture more recent trends in physical availability conceptualisation and measurement); yet they continue to be the main reference for research on brand presence evaluation.

Table 7: Bibliometrix most cited offline documents

Paper	Total Citations (#)	Avg. Citations per year
Broniarczyk et al. (1998)	314	13
Ailawadi and Farris (2017)	174	34
Urban (1998)	143	5
Briesch et al. (2009)	135	10
Desmet and Renaudin (1998)	108	4
Perdikaki et al. (2012)	69	6
Cachon (2001)	66	3
Hwang et al. (2005)	65	3
Murray et al. (2010)	63	5
Borin and Farris (1995)	54	2

Table 8 shows the occurrence of keywords within documents. The most recurring keywords are ‘shelf space allocation’ (eight times), ‘assortment’ (five times) and ‘retail’ (four times). Interestingly, the broad keyword ‘presence’ obtained no occurrence, showing a lack of more focused scholarly discussion surrounding the presence aspect of physical availability in the literature, in lieu of a much broader and scattered evaluation of related concepts.

Table 8: Bibliometrix offline top author’s keywords

Keyword	Occurrences
Shelf space allocation	8
Assortment	5
Inventory management	4
Retail	4
Retail operations	4
Retailing	4
Case pack quantity	3
Shelf space	3
Association rules	2
Data mining	2

Figure 26 shows the co-occurrence network of the top terms used in author’s keywords. This determined current themes and author’s discussion of physical availability presence (Aria & Cuccurullo 2017). The keyword ‘shelf space allocation’ has the largest node and keyword occurrences; therefore, it is the most prominent concept in this body of literature. ‘Shelf space allocation’ is also strongly linked to the concepts of ‘inventory management’, ‘retail operations’ and ‘stockouts’, emerging as one prominent cluster or theme characterising the focus of the relevant strand of marketing literature. This outcome, could suggest that existing research on the brand presence element of physical availability in offline domains is primarily concerned with shelf space allocation, yet approaches it from a fulfilment point of view, rather than from a strategic brand management perspective. Furthermore, ‘shelf space allocation’ is a general and common concept that retailers use to easily monitor brand health and sales. Therefore, it is a well-covered concept within literature and is reflected in the high keyword occurrence.

Figure 26: Bibliometrix offline co-occurrence network of top terms in authors keywords



To complement the bibliometric data frame considered for brand presence measurement in brick-and-mortar context, extensive cross-examinations of all documents' contents returned a total of 12 offline brand presence measures, with 23 different citations examining these measures. 14 of the 23 authors discussed eight offline brand presence measures as empirical evidence (i.e., involving extensive research and data collection). While ten authors discussed eleven brand presence measures as conceptual research (i.e., discussing the measures as a theoretical framework or a concept). There was more conceptual research than empirical evidence. The greater academic conceptual research than empirical research could have resulted from it being more time consuming to conduct the research, and less cost-effective or convenient to gather data from various locations or participants. *Product category volume* was the most discussed measure with 11 citations, followed by *all commodity volume* with eight citations and *shelf space allocation* with seven. Heavy contribution in this citations pattern originated from Ailawadi and Farris (2017, 2020); Farris et al. (2016); Farris et al. (2006), who mentioned measures such as *numerical distribution, all commodity volume* and *product category volume*. This overlap between some authors discussing multiple or various measures is expected.

Table 9 is a consolidated inventory of offline presence measures and summarises the measures and details - definition, formula, relevance to physical availability and brand presence, alongside some limitations of each measure, and author citations. This table will form the preliminary inventory before arriving to a final offline inventory. Each measure is numbered for easy reference, below and in the tables.

Table 9: Summary of offline (brick and mortar) brand presence measures

Brand presence measure (n=12)	**Calculation**	**Relevance to PA or Presence**	**Limitations**	**Citations (n=23)**
1) Numerical Distribution (%) or Physical Distribution (%) **Definition:** % percentage of stores / outlets stocking the brand's product, within the universe of stores in the relevant market.	$\frac{\text{Number of outlets carrying the product}}{\text{Number of outlets in the market}}$ Stocks ≥1 SKU	Determines brand exposure and availability. Analyses the brand presence for the whole of the category in the market.	Does not: - indicate distribution quality by store weighting (i.e., best store location and for individual stores/outlets). - account some stores selling more of the category than others.	(Ailawadi & Farris 2017) (Farris et al. 2006) (Farris et al. 2016) (Guissoni et al. 2020) (Reibstein & Farris 1995) **(n=5)**
2) All Commodity Volume (ACV) (%) **Definition:** percentage of total commodity sales in stocking outlets, out of the total product category. Weighted distribution measure. Weighing outlets by total store sales.	$\frac{\text{Total sales of a store carrying the brand}}{\text{Total sales of all stores}}$ Stocks ≥1 SKU	Determines presence through share of category sales of the stocking outlets (i.e., weighted distribution reflects stocking outlet importance). High ACV = - brand available in many stores and selling large quantities. - suggests more retail traffic and customer spending.	Does not: - focus on number stores selling brand's products and their products position in store. - reveal how brands compete in relevant category.	(Ailawadi & Farris 2017) (Ailawadi & Farris 2020) (Farris et al. 2006) (Farris et al. 2016) (Reibstein & Farris 1995) (Krider et al. 2008) (Kucuk 2008) (Wilbur & Farris 2014) **(n=8)**

Brand presence measure	Calculation	Relevance to PA or Presence	Limitations	Citations
3) Product Category Volume (PCV) % **Definition:** Share of relevant product category sold by the store. Weighted distribution measure. Weighing outlets by total sales of the product.	$\frac{\text{Total category sales of outlets carrying the brand}}{\text{Total category sales of all outlets}}$ Stocks ≥1 SKU	High PCV = -the store has high sales volume -High brand/product distribution/ presence Determines: -if products are selling in relevant stores. - product distribution quality. - current outlet sales. - customer purchasing patterns.	Does not: - portray brand/product sales, instead overall store sales. Requires giving individual outlet sales revenue to brands/ data companies (often sensitive information).	(Ailawadi & Farris 2017) (Ailawadi & Farris 2020) (Borin et al. 1991) (Farris et al. 2006) (Farris et al. 2016) (Friberg & Sanctuary 2017) (Guissoni et al. 2020) (Kucuk 2008) (Umit Kucuk 2011) (Reibstein & Farris 1995) (Verbeke et al. 1994) **(n=11)**
4) Total Distribution Points (TDP) % **or** **Total Distribution** **Definition:** Combines breadth of distribution for the brand and depth of distribution for the product line.	Sum of ACV *or* PCV for all SKUs of the brand.	Determines product line's availability and brand performance.	Need to calculate ACV or PCV to determine TDP.	(Ailawadi & Farris 2017) (Farris et al. 2006) (Farris et al. 2016) (Nielsen 2018) **(n=4)**
5) Category Performance Ratio % (CPR)	$\frac{\text{PCV (\%)}}{\text{ACV (\%)}}$	Determines brand's distribution network and stocking outlet effectiveness.	Need to calculate ACV and PCV to determine CPR.	(Farris et al. 2006) (Farris et al. 2016) **(n=2)**

Definition: Relative performance of retailer(s), in a product category vs. performance in all product categories.		CPR > 1 indicates good brand presence.		
Brand presence measure	**Calculation**	**Relevance to PA or Presence**	**Limitations**	**Citations**
6) Breadth of distribution **or** **Number of SKUs** **or** **Number of Inventory** **Definition:** see calculation	Number of SKUs (stock keeping unit) held in a store **SKU:** scannable barcode to track movement of products.	Determines outlets: - with a range and breadth of products. - potential interest in displaying the product. Helps brands evaluate and choose stores for their presence.	Does not: - indicate specific brands on shelf and in stock. Simply reports number of products. - show if outlets/ products are selling effectively.	(Borin et al. 1991) (Farris et al. 2006) **(n=2)**
7) Out of stocks (OOS)% **or** **Duration of OOS** **or** **Shelf stockouts** **Definition:** An item in-store with authorised distribution but unavailable for consumers on the fixed shelf. *or* The length of time the product / brand is not on the shelf.	Number of outlets brand/product is listed but unavailable / Number of total outlets where brand/product is listed *or* Time period a product is temporarily unavailable on shelf (e.g., days, weeks, months).	Determines store's shelf stock efficiency and performance. Low OOS% = - good sales - brand /store loyalty - high brand presence.	Typically needs one person tracking/ recording and over time measurement is human resource draining. Nowadays, can use scanner data, inventory tracking, and other technology to measure OOS.	(Aastrup & Kotzab 2009) (Eroglu et al. 2011) (Farris et al. 2006) (Farris et al. 2016) (Kucuk 2008) **(n=5)**
8) Store traffic **or** **Foot traffic**	Number of customers entering a store in a certain period (i.e., days, months, years). *or*	Analyses customer reach and frequency, therefore	Manual traffic count is time-consuming process and prone to errors.	(Ailawadi & Farris 2017) (Ailawadi & Farris 2020) (Umit Kucuk 2011)

Definition: see calculation Measure can be weighted by outlets importance	$\frac{\text{Foot traffic of a store carrying the brand}}{\text{Foot traffic of all stores carrying the brand}}$	determining brand presence.	Alternatively, can use sensors/ tracking technology.	**(n=3)**
Brand presence measure	**Calculation**	**Relevance to PA or Presence**	**Limitations**	**Citations**
9) Store sales volume (SV) **Definition:** see calculation	Total number of units sold in a certain time.	Good turnover of products suggests successful outlets (i.e., strong presence).	Does not: - account some stores selling more of the category than others. Should also consider other measures in conjunction e.g., OOS%, Foot Traffic or Numerical.	(Etgar & Rachman-Moore 2010) (Perdikaki et al. 2012) **(n=2)**
10) Total outlet sales (TOS) **Definition:** see calculation	$\frac{\text{Total stores sales}}{\text{Selling space (feet or meters)}}$ *excludes non-selling areas (e.g., backrooms)	High TOS suggests store productivity and selling in the right location (i.e., strong presence).	Does not: -weight measure by store size -compare TOS against competitors.	(Farris et al. 2006) (Farris et al. 2016) **(n=2)**
11) Store shelf space or Share of shelf or Shelf space allocation **Definition:** see calculation	$\frac{\text{Number private label facings}}{\text{Total facings on shelf in a category}}$ *Or* $\frac{\text{Number of store brand shelf space (linear feet/area)}}{\text{Total number of brands on shelf}}$	Greater store shelf space suggests greater brand exposure, findability, product allocation and availability in retail stores. Helping brands compare their presence against competitors.	Does not: -indicate consumer interest in products. - shelf space quality - consider high traffic spots in store Stock taking, time-consuming process.	(Chiang & Wilcox 1997) (Farris et al. 2006) (Farris et al. 2016) (Gomez & Rubio 2008) (Hübner & Schaal 2017) (Umit Kucuk 2011) (Urban 1998) **(n=7)**
12) Distance or Distance between competing stores	Distance between shopper's home and retailers' closest store	Determines if the brand is available among high competition, right	Uncommon method to measure presence and time-consuming process.	(Briesch et al. 2009) (Hwang et al. 2010) **(n=2)**

Definition: see calculation	*or* Number of competitors around the store *or* Geographic distance between pairs of stores.	location and buying occasions.	Fails to explain reason for choosing the store (e.g., convenience, loyalty).

To build on the table above, the brand presence measures relevance and comparisons are elaborated below.

1) **Numerical distribution** determines brand exposure and availability in a product category or market by means of counting the outlets where the brand is present, each categorised into equal percentage points of sales potential. This is a key limitation of this measure, since according Guissoni et al. (2020) and Ailawadi and Farris (2017) other measures like *all commodity volume* and *product category volume* offer a better representation of brand presence than numerical distribution, because the outlets are weighted based on sales volume. Moreover, compared to *breadth of distribution*, numerical distribution does not account for inventory in-stores.

2) **All Commodity Volume (ACV%)** is the share of category sales of the outlet(s) that stock the brand. Brands should aim for a high *ACV*, as it implies selling large quantities, high retail traffic and customer spending in many stores (large and small). Compared to *numerical distribution,* this measure does not show the share of outlets carrying the product or brand. Unlike *product category volume* ACV also does not account for share of product or brand sales. Similarly, *Breadth of distribution* and *Out of Stocks* account for shelf inventory and captures loss in sales, while ACV does not.

3) **Product Category Volume (PCV%)** establishes the products sold in relevant stores, the quality of the product distribution, current outlet sales and the purchasing patterns. A strong PCV indicates the store has high sales volume and brand/product distribution. In comparison to *ACV*, PCV does not consider in-store brand sales and

sales from other channels. Comparatively, *breadth of distribution* shows the shelf inventory and *foot traffic* examines the increases in product distribution.

4) **Total Distribution Points (TDP) or Total Distribution** expands the information that *ACV* and *PCV* can offer about brand presence, as it shows the product line's availability and brand performance (i.e., breadth and depth). However, unlike *breadth of distribution* TDP does not show the number of inventories on shelf and instore. Also, in comparison to *Store shelf space*, TDP does not provide insight into shelf space and purchasing patterns.

5) **Category Performance Ratio (CPR**) **%** reflects brand's distribution network and stocking outlet effectiveness. Compared to *ACV* and *PCV*, CPR does not capture the brand performance at a category (market) level.

6) **Breadth of distribution or Number of SKUs or Number of inventory** measures the number of outlets with a range and breadth of a brand's products. It shows stores that stock and display the product, helping brands evaluate and choose stores. However, unlike *ACV, PCV* and *TDP*, this measure does not show outlet effectiveness by store sales. It also does not show the products that are temporarily unavailable in the store, which in contrast can be captured through the *Out of stock* measure.

7) **Out of stocks (OOS) % (or Duration of OOS or Shelf stockouts)** establishes a store's shelf stock efficiency and performance (e.g., how long and why products are unavailable on shelf). Products can be OOS, because of the retailer or supplier issue. The measure expands on *ACV* and *PCV* by showing if there is potential sales loss. A high *OOS* means a loss in sales, lower brand/ store loyalty and poor or low brand distribution. Yet, *OOS* does not consider number of customers entering the store (*store traffic*), geographical location and proximity to customers (*distance or distance of competing stores*).

8) **Store or foot traffic** accounts for number of customers walking into physical store in a given time frame. It shows customer's store interest and buying patterns. It also

ascertains the importance of the brand's distribution outlets. High *store or foot traffic* means more customers increases the chance of product being seen and bought but does not necessarily generate sales; therefore, it is best to consider sales/productivity-based measures like *numerical distribution, ACV, PCV* and *breadth of distribution*. Moreover, unlike *OOS*, store traffic does not indicate the type or number of products on shelf.

9) **Store sales volume** evaluates number of units sold for all categories at each stocking outlet sold in a period. It is not to be confused with retail sales /revenue (i.e., total sales generated from products sold at stocking outlet). Unlike *Total outlet sales*, this measure does not consider non-selling spaces (e.g., storerooms). Compared to *breadth of distribution*, *store sales volume*, store sales volume also does not analyse individual products sold.

10) **Total outlet's sales** establishes store productivity and effective usage of the retail store. Compared to measures like *numerical distribution, ACV, PCV* and *OOS*, this measure does not consider store effectiveness at shelf level or compare presence against other brands.

11) **Store shelf space (or Share of shelf or Shelf space allocation)** showcases brand exposure, findability, product allocation and on shelf availability in retail stores brands are already available in. Although managers can use this measure to compare presence against competitors, it does not account for the outlets the brand is not available in nor for brand sales. Furthermore, the product availability on shelf may depend on the day, time and purchasing occasion. Products on shelf may also rotate or be temporarily OOS.

12) **Distance or Distance between competing stores** explains if the brand is available among high competition, right location and buying occasions, and if the outlet is easily accessible to customers. Compared to *numerical distribution, ACV* and *PCV* this measure does not illustrate outlet sales. Furthermore, measuring *distance* does not show capture important information on brand presence such as *OOS*, *foot traffic* and *store shelf space*.

To summarise RQ1 **resulted in 12 offline brand presence measures**. Many of these measures capture common information, but also show marked differences in relation to specific aspects that a certain measure captures vs. omits. This level of confusion is a testimony to the state of this body of marketing knowledge, which is now conveniently summarised into one single inventory. Future researchers and managers alike can now draw from this inventory to make informed decisions on how to evaluate the brand presence element of physical availability for the brick-and-mortar context, fully aware of pros and cons of each measure.

4.2.2 Online brand presence measures (RQ2)

The SLR gathered 41 documents from Scopus representative of the strand of marketing research linked to online brand presence. The majority of these sources were journal articles (82%), three were books (7%), two conference papers (5%) and two were reviews (5%). Table 10 shows the top sources the documents were published in, some of which overlap with the results of the analysis concerning sources about offline brand presence. For instance, Journal of Retailing and Consumer Services is the most prominent source of documents, followed by five journals all with a retailing focus and, on occasion, with a focus on e-commerce (e.g., Electronic Commerce Research and Applications). No marked publisher bias emerged.

Table 10: Bibliometrix online top 10 sources

Sources	Articles
Journal of Retailing and Consumer Services	5
Electronic Commerce Research and Applications	2
International Journal of Retail and Distribution Management	2
Journal of Internet Banking and Commerce	2
Journal of Research in Interactive Marketing	2
Technological Forecasting and Social Change	2
Advances in e-Business Research Series	1
Australasian Marketing Journal	1
Digital and Social Media Marketing: A Results-Driven Approach	1
European Journal of Marketing	1
Other journals	22
Total	41

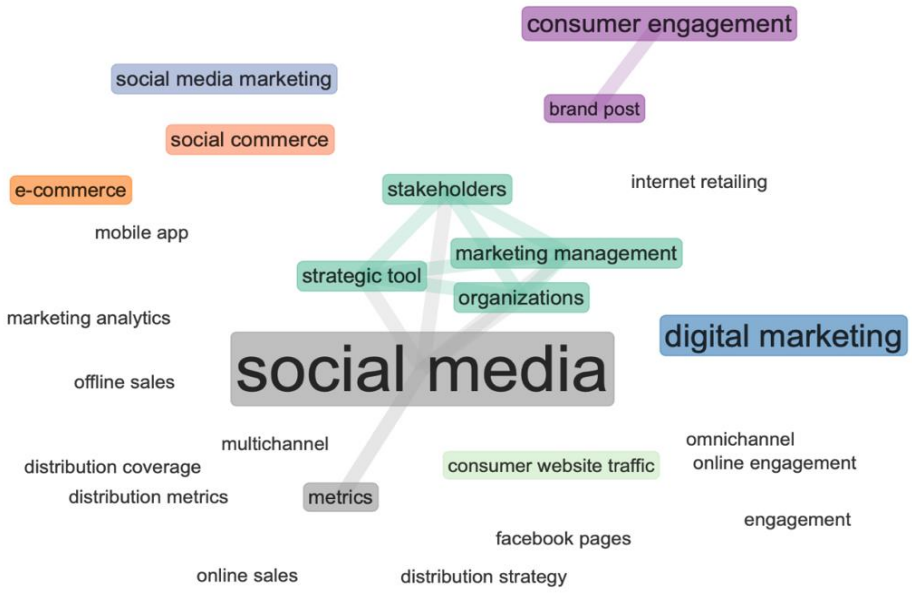
Table 11 shows the top keywords, highlighting five occurrences for 'social media', three occurrences for 'consumer engagement', 'customer engagement' and 'digital marketing', and two occurrences for 'brand post' and 'e-commerce'. This outcome suggests that research on online brand presence is clearly biased toward social media, with a possible confusion between the notion of consumer/customer engagement. Moreover, none of these keywords corresponds to a concept or measure more concretely linked to the evaluation of online brand presence, or even more broadly online physical availability (or even digital availability).

Table 11: Bibliometrix top online author's keywords

Relevant keywords	Articles
Social media	5
Consumer engagement	3
Customer engagement	3
Digital marketing	3
Artificial intelligence	2
Brand post	2
E-commerce	2
eWOM	2
Flow experience	2
Marketing management	2

A similar outcome emerged from the analysis of the co-occurrence of keywords (Figure 27). Social media is the top co-occurring keyword and it is linked to the general keyword 'metrics', but it is not linked to any specific measure of online brand availability. 'Distribution coverage' and 'distribution metrics' were two relevant keywords and possible online brand presence measures, albeit not co-occurring (i.e., not being consistently researched, nor forming a sub-strand of research with a clear focus on brand presence evaluation). Similarly, 'consumer website traffic' emerged as an individual, not co-occurring keyword however, could be a possible online brand presence measure.

Figure 27: Bibliometrix online co-occurrence network of top terms in author's keywords



Adding to the overall description of the relevant bibliometric sources and the thematic analysis, the SLR returned **a total of 21 online brand presence measures**. The inventory included eight brand presence measures linked to e-commerce, nine linked to m-commerce (with significant overlap between these two fields) and four linked to social commerce, as follows. In comparison to offline, there is significantly less documents with empirical evidence for online brand presence measures (only two of the recorded measures). While 14 authors (one or two authors for each measure) describe the presence measures as conceptual research. This illustrates there is dispersed information and calls for more deeper research into online brand presence.

E-commerce brand presence measures

Similar to Table 9, Table 12 presents a preliminary online inventory, revealing eight e-commerce (key focus on brand owned and third-party websites) and m-commerce (using mobile as a web browser, therefore combined in e-commerce) brand presence measures. Only six authors are cited, and each measure attained one or two authors as citations, with years ranging from 2006 – 2020.

Table 12: Summary of online (e-commerce and m-commerce) brand presence measures

Brand presence measure (n=8)	**Calculation**	**Relevance to PA or Presence**	**Limitations**	**Citations (n=6)**
1) Website page views (or page impressions)	The number of times a website page is viewed over time.	Determines website/online store traffic, popularity, sales, activity and its success. More times viewed suggests good presence.	Does not: -record customer page landing. -show number individual people viewed (e.g., multiple views from the same person, illustrating inaccurate page view representation).	(Farris et al. 2006) (Farris et al. 2016) **(n=2)**
1) Mobile website page views **Definition:** Number of times a page displayed to viewers/users.				
2) Website visits or Website visitors	Number times visitors arrive to a website. *or* Number unique website visitors over time.	Determines brand visibility and accessibility. High number visits and visitors suggests -utilised website -reaching new customers -engaging with loyal customers and good presence.	Does not: -show if visits are redirected from other sources like, apps or social media.	(Farris et al. 2006) (Farris et al. 2016) **(n=2)**
2) Mobile website visits or Mobile website visitors **Definition:** A series of pageviews grouped together in a single session. Visits: website traffic.				

Visitors: website and product reach. Type of traffic coming to website				
Brand presence measure	**Calculation**	**Relevance to PA or Presence**	**Limitations**	**Citations**
3) Website conversion or Conversion rate % **Definition:** Taking the desired action on the website (e.g., clicking on website, making a purchase, or signing up to the newsletter).	$\frac{\text{Number of conversions}}{\text{Total unique visitors}}$ *or* $\frac{\text{Number of users purchasing a product}}{\text{Total unique visitors}}$	High conversion is preferred and suggests in the right online channel.	Does not: -track where customers are coming from or who they are.	(McDowell et al. 2016) **(n=1)**
4) Search engine results page (SERP)	**Calculation:** see definition	High SERP determines brands ranking compared to competitors and performance (ideally want top search result – good presence).	Website position varies overtime. Important brands continuously monitor SERP. Brands may pay Google Ads for high rankings.	(Ailawadi & Farris 2017) **(n=1)**
4) Mobile search engine results page (mobile SERP) **Definition:** Brand's position on a search engine (e.g., Google, Bing, Yahoo). *Or* Brand's website positioning on the first search engine results page. Alternatively, analyse a brand related keyword or topic.				
5) Product category search volume (PCSV)		High PCSV determines good brand	Brands require continuous tracking	

5) Mobile product category search volume (mobile PCSV) **Definition:** see calculation	Number of product searches on search engines or websites	positioning on search engines.	and recording the searches.	(Ailawadi & Farris 2017) **(n=1)**

Brand presence measure	**Calculation**	**Relevance to PA or Presence**	**Limitations**	**Citations**
6) Share of search (SOS) **6) Mobile share of search** **Definition:** Share of a brand's search compared to market's total brand search volume.	Number of brand searches / Total searches of all brands in category	Determines brand presence/ positioning by evaluating customers interest of the brand though searches. Comparing competitor's SOS establishes brand positioning and search volume. High SOS relative to brand size suggest high brand growth.	Does not: -measure inputs. Only accounts outputs. - show which channels are utilised.	(Swift 2020) **(n=1)**
7) Benchmark Product Price Difference (BPPD) % **Definition:** see calculation	**BPPD =** A product's average product price minus Associated benchmark product price *Weighted based on product's web traffic potential. Popular products = more weighting.	Allows brands to adjust pricing to attract customers, remain competitive and increase presence.	Does not: -consider brick and mortar prices which may not recorded/sold in the online store. Only comparing prices that are online.	(Hayes 2019) **(n=1)**

8) Gross merchandise value (GMV) **Definition:** see calculation	Total value of sales transacted by 3rd party websites (e.g., eBay and Amazon). *Calculation excludes website fees	High GMV compared to competitors or accrued overtime suggests adequate performance and presence.	Does not: -factor price discounts or returned items.	(Ailawadi & Farris 2017) **(n=1)**

The relevance and comparison of the **eight e-commerce brand presence measures** are as follows:

1) **Website page views (or page impressions) / Mobile website page views** determine the online traffic for websites/online stores, the popularity, potential sales, activity and its overall success. However, unlike *search engine results page* this measure does not indicate the website location in search engines. Furthermore, it does not note the exact sales or conversions (i.e., *website conversion*).

2) **Website visits or Website visitors/ Mobile website visits or mobile website visitors** reveal if visitors investigated multiple website pages. If a website attains a high number of visits and visitors, it is being utilised, reaching new customers and engaging with loyal customers. However, unlike *website conversion*, the measure does not account sales or visitor conversions. Similarly, unlike *search engine results page*, this measure does not show the website placement and presence compared to competitors.

3) **Website conversion or Conversion rate %** illustrates strong online brand presence and the ability to convert strangers into buyers. Specialised paid and free tools are available to provide additional information about this metric. It is superior to other measures such as *website page views*, which capture only potential sales.

4) **Search engine results page (SERP) / Mobile search engine results page (mobile SERP)** show a brand's ranking on search engines compared to competitors. Brands ideally want to be the top search result. There are specialised paid and free tools available to analyse and monitor *SERP*, making it easy for brands to gather information. Yet, *SERP* does not consider website traffic, reach, number website clicks, views and sales resulted from the searches. This information, in contrast, can be inferred from other measures such as *website page views, website conversions, benchmark product price difference* and *gross merchandise value*.

5) **Product category search volume (PCSV)/ Mobile product category search volume (mobile PCSV)** determine brand reach, frequency, and shopper's brand preferences

on search engines. It expands on *SERP* by determining number searches for brand's products in a search engine. However, the measure does not show the number of website views, visitors, number of searches compared to others on search engines or generated sales.

6) **Share of search/ Mobile share of search** determine brand visibility and customer interest in the brand on search engines. The data can be gathered via Google Trends or Google Keywords Planner. Brands can also compare their share of search against competitors to establish their brand positioning and search volume. A high share of search relative to brand size implies a high brand growth. However, unlike PCSV, the measure does not consider *website page views* or number of product searches.

7) **Benchmark Product Price Difference (BPPD)** is typically used in price comparison websites (e.g., Google Shopping) and examines product demand and pricing compared to competitors. Therefore, brands can adjust their pricing to attract customers, remain competitive and increase presence. Although very helpful for appraising online brand presence, the measure clearly omits relevant information linked to visibility online and search engine position.

8) **Gross merchandise value (GMV)** reflects brands sales, growth and performance on third party websites. However, *GMV* does not determine website page views, visitors, search engine positioning (while *SERP* and *PCSV* can explain this) or pricing compared to competitors (an information that can be derived from *BPPD*).

M-commerce and app brand presence measures

Adding to the measures discussed so far, the results of Study 1 also returned **four additional brand presence measures linked to m-commerce and, more specifically, mobile apps** (Table 13). Notably, these brand presence measures originated from recent bibliometric sources (2018 to 2021), all of which were business or industry articles. Hence, there appears to be a lack of academic articles discussing enhancing brand presence through mobile apps. This is surprising, given apps' documented role as 'brand in the hand' (Stocchi et al. 2017; Stocchi et al. 2019; Sultan & Rohm 2005).

Table 13: Summary of online (m-commerce/ mobile app) brand presence measures

Brand presence measure (n=9)	Calculation	Relevance to PA or Presence	Limitations	Citations (n=4)
7) Number of app downloads or installations **Definition:** see calculation	Number of app downloads from Apple App Store or Google Play store. Can gather data from in-built analytics	Determines brand app presence in the app store. High number downloads suggest accessible, interest and strong PA	Does not: -determine sales - number customer interactions with the app.	(App Radar 2021) **(n=1)**
8) App ranking **Definition:** see calculation	Brand app ranking in app store based on keywords. e.g., app name, app title or product description.	High app store ranking illustrates greater exposure, popularity, and accessibility.	Does not: -determine consumer engagement with the app. -consider brand sales or in-app purchases.	(App Radar 2021) (Mor-Samuels 2021) **(n=2)**
9) Number of active app users **Definition:** number of times an app has been used/ opened.	Number of daily, monthly, and/or yearly active users. *Information found on App Store dashboard or independent Tools	A high number of active app users suggest stable and continual brand presence and app effectiveness.	Does not: - indicate if customers easily found the app in the app store. -is user friendly.	(Schneider 2020) **(n=1)**
10) Average revenue per app user (ARPAU) **Definition:** see calculation	$\frac{\text{Total revenue generated}}{\text{Number of active users}}$ Calc based on a certain timeframe e.g., days, weeks, months.	High revenue shows profitability, success and affirms brand is in correct online channel and has good presence.	Not applicable for all branded apps. Some apps redirect purchases to another page, give discounts and maintain customer loyalty	(Mor-Samuels 2021) (Manifest 2018) **(n=2)**

To add to the above, the relevance and comparison of the brand presence measures through mobile apps are elaborated below.

1) **Number app downloads or installations** determines brand app presence in the app store. Brands ideally want a high number of downloads, which would suggest the brand is accessible and has attained strong presence. In-built analytics can be used to analyse the measures, making it convenient and easy for to keep track of brand presence. Yet, this measure does not account for *number of active users* or *average revenue per app user*.

2) **App ranking** establishes the branded app position in the app store. Brands typically aim for being number one app store ranking, as it illustrates greater exposure, popularity and accessibility. However, *app ranking* does not account for *number of app downloads, number of active users* and in-app sales.

3) **Number of active app users** establishes the effectiveness of the brand app and presence, since it focuses on individual use of app. This measure information can be found easily on the App Store dashboard or independent tools. Yet, unlike the other app measures, this measure does not consider app presence on a broad level.

4) **Average revenue per app user** extends other mobile app measures by understanding if the app is generating sales. A high app revenue per user is desirable and indicative of strong brand presence. However, as a measure, this indicator does not consider *number of downloads* or *app ranking.*

Social commerce brand presence measures

Table 14 illustrates the list of social commerce (social media) brand presence measures. **Four social media related brand presence measures** emerged, primarily from industry sources published between 2013 and 2021. One academic source stood out: Peters et al. (2013); however, due to the ever-evolving nature of social media, it must be noted that some of the measures discussed in this seminal article are no longer relevant to the current landscape of social commerce strategies and tools.

Table 14: Summary of online (social commerce) brand presence measures

Brand presence measure (n=4)	**Calculation**	**Relevance to PA or Presence**	**Limitations**	**Citations (n=5)**
1) Page reach **Definition:** see calculation	Total number of unique accounts viewing the brand's social media content. Applicable for any social media platform (e.g., Facebook, Instagram or YouTube).	Determines good brand exposure, availability, awareness and presence in the category.	Social media has clutter and high traffic, causing low audience absorption of information on the post/ page. Post reach depends on time of day. Reach can be inorganic by using sponsored posts or paid advertisements.	(York 2020) **(n=1)**
2) Impressions **Definition:** see calculation	Number of times the brand content (e.g., posts, stories, videos) was displayed on audience's feed.	Increases brands' presence and foot print on social media via home page, hashtags or shares.	Does not: -account number unique viewers. One person can create multiple impressions by viewing the post multiple times.	(York 2020) (Peters et al. 2013) **(n=2)**
3) Engagement or Insights **Definition**: Audience's involvement with brand's social media content**.**	**Engagement:** e.g., number of likes, reactions, comments, shares, views, reach and impressions. **Insights:** e.g., number of clicks, click throughs, sales, video revenue, sales and actions on the page.	High engagement suggests high brand reach, frequency and activity therefore greater presence.	Does not: High engagement alone does not imply strong brand presence. Still important to consider other social media measures. Buying followers and using bots to boost engagement gives an inaccurate depiction of online presence.	(Chen 2021) (York 2020) (Peters et al. 2013) **(n=3)**
4) Share of voice **Definition:** Discussion of brand on social media, compared to competitors	Number of times the brand is tagged, mentioned, or used as a hashtag in a post.	Determines brands positioning in the market, measuring audience's attention, interactions and brand strength with its audience.	Does not: -record the audience mentioning the brand without tags or hashtags. Leads to misperception of low online discussion and presence of brand. Bots are also an issue.	(Jackson 2020) (Sehl 2020) **(n=2)**

Following on, the relevance to presence and comparison of the social media brand presence measures are explained.

1) **Social media page reach** reports how many accounts are viewing the brand's social media content (e.g., posts, videos or stories), thus capturing brand exposure, awareness and presence. Social media reach is applicable for any social media platform including Facebook, Instagram and YouTube. Providing confidence to brands they are in the right channel(s). However, unlike *social media impressions,* this measure does not show the number of times the post been viewed or account for *social media engagement* measures (likes, comments, shares).

2) **Social media impressions** establishes brands' visibility on social media platforms and the content's potential. A high number of impressions suggests the brand is in the right social media channel. In contrast, it does not show *social media reach* and the number of unique accounts that have seen the content. Furthermore, impressions do not account for *engagement* measures (e.g., likes, comments, shares, video view).

3) **Social media engagement** shows audience engagement and interaction with brand's content. A high engagement suggests high brand reach and frequency. This measure builds on *Social media reach* and *Impressions* by analysing audience's activity and involvement for any social media platform including Facebook, Instagram and YouTube.

4) **Share of voice** analyses the discussion of the brand on social media compared to competitors and is monitored through the number of times the brand is tagged, mentioned, or used as a hashtag in a post. It deals with real conversations by followers surrounding brand. This aims determining brands positioning in the market, visibility and audience's attention versus their competitors.

In summary, answering RQ2 Study 1 of this thesis returned a list of **21 online brand presence measures**, with significant overlap between e-commerce and m-commerce (except m-commerce executed via mobile apps), and a distinct set of additional brand presence measures for social media.

The next section showcases the online equivalent to the offline presence measures.

4.2.3 Equivalent online to offline presence measures (RQ3)

RQ3 determines the online equivalent presence measures to offline. Table 15 shows **four offline brand presence measures with an online equivalent measure.**

Table 15: Online equivalent to offline brand presence measures

OFFLINE brand presence measure	Equivalent ONLINE brand presence measure
1) All commodity volume (ACV) %	Gross merchandise value (GMV)
2) Product category volume (PCV) %	Product category search volume (PCSV) Search engine results page (SERP) Mobile app ranking
3) Store or foot traffic	Page views Website visits/visitors Social media engagement
4) Store shelf space/ allocation **Or** **Share of shelf**	Search engine results page (SERP) Product category search volume (PCSV) Share of search Mobile app ranking

1) **All commodity volume (ACV)** (offline measure) has an online equivalent measure, **gross merchandise value** which examines total value of sales transacted, calculates business growth using sales and establishes the fastest-moving products.

2) **Product category volume (PCV)** is equivalent to three online measures: **product category search volume (PCSV)** because it shows the number of product searches on search engines or website, instead a retail store. **Search engine results page (SERP)**, similarly big brands (usually brands with large number stocks and high category sales) typically attain high SERP ranking (Ailawadi & Farris 2017). Brands with high ranking on search engines are perceived to be more significant/relevant

to consumers. Brands can pay for certain keywords in search engines to increase presence. This is similar to paying for prime positioning in brick and mortar stores, and **mobile app ranking** the top app in app store in relevant category (e.g., fashion or sport), means the brand is popular and easily available for users/ customers.

3) **Store or foot traffic** is equivalent to three online measures,
   Website page views is similar to a physical store, page views show website online traffic and activity. **Website visits/visitors** shows the website traffic and the type of traffic. For example, the audience is coming from search engines. While **social media engagement** for example, number of likes, comments and shares shows brand visibility and virtual store traffic. High social media engagements, insinuates greater online foot traffic.

4) **Store shelf space or Share of shelf or shelf space allocation** equivalence are:
   search engine results page (SERP) because search engines / search results pages operate like a digital shelf allowing consumers to compare, decide on products and purchase. Measuring brands search engines positioning perceived similar to measuring shelf space allocation/ positioning. While **product category search volume (PCSV)** is similar to comparing product searches on search engines deemed similar to understanding brand on-shelf positioning or allocation compared to competitors. **Share of search** is similar to analysing brand's on-shelf allocation and **mobile app ranking** is similar to store shelf space as the app store is perceived similar to brick and mortar shelf. Therefore, brand's mobile app ranking on app stores can be comparable to shelf space.

In addition to above, there are **eight brand presence measures that can be calculated for both online and offline channels.** These are:

1) Numerical distribution
2) All commodity volume (ACV) %
3) Product category volume (PCV) %
4) Total distribution point (TDP) %
5) Category performance ratio %
6) Breadth of distribution/ Number of SKUs or inventory
7) Out of stocks (OOS)% / Duration of OOS/ Shelf stockouts
8) Store sales volume

Most of these offline brand presence measures have qualities that can be translated into own or third-party websites, mobile apps or social media platforms. For example, *numerical distribution* compares number of offline outlets in the market, which can be equivalent to counting online stores on website / e-commerce channels, mobile and/ or social media. *ACV, PCV*, *category performance ratio* and *store sales volume* consider brand sales in the store and can be calculated in offline and online contexts. While *breadth of distribution* and *out of stock* focus on product inventory availability in the store. Similarly, this can be calculated online. This provides managers the flexibility to use these measures on either channel. Managers already familiar with the measure could save money and time by not having to invest in new measures.

However, there are two offline presence measures that do not have an online equivalent:

1) Total outlet sales
2) Distance / Distance between competing stores

These measures depend on having a physical store and therefore cannot have a comparable measure to online. For example, *total outlet sales* consider sales and the inventory in the selling spaces of the store, while *distance* examines store distance from consumers or competitors. To measure these there is a strong reliance on a physical space making online impossible.

Overall, the results established **four offline brand presence measures with online equivalent measures**. This comparison can be valuable for brand managers or academics

conducting analysis and want to use, understand and/or establish a similar offline and online measure.

The next section will discuss the results of the practitioner survey.

4.3 Study 2: Practitioner survey

4.3.1 Monitoring presence

This section presents the results from the practitioner survey and answers RQ4. The practitioner survey determined the offline and online brand presence measures gathered from Study 1 marketing practitioners were aware of and use, and the perceived level of usefulness of these measures.

The results disclosed 84% sold their brand in a brick-and-mortar store and 82% tracked and monitored offline brand presence. While 96% sold their brand online and 94% tracked and monitored online presence. Therefore, 12pp more respondents recorded monitoring their online presence. This could be because of the growing trend and demand for online stores and businesses. Almost all respondents that sold via a physical and online store, monitored their brand presence.

A large number of respondents have online stores and monitor their online brand presence. However, there is limited documentation of this in literature. This confirms the findings in Study 1 that there is insufficient documentation in scholarly research of methods used for tracking and monitoring brand presence online.

4.3.2 Measure awareness (RQ4a)

RQ4a explored unprompted and prompted awareness for online and offline brand presence measures in practice. First, respondents were asked to type the offline brand presence measures they could identify. 40 different measures or concepts were identified by respondents unprompted, without cues or aids. Table 16 shows 18 out of 51 respondents (35%) recalled *distribution*. *Distribution* is an alternative term for physical availability

(Reibstein & Farris 1995; Wilbur & Farris 2014) and therefore may explain the high recall. *Share of shelf* (31%) and *numerical distribution* (22%) closely followed in unprompted awareness. Other measures that respondents noted included *average store SKU* (4%), *footfall per available store* (2%) and *store coverage* (2%).

Respondents were prompted with all 12 offline brand presence measures listed in Study 1 (SLR). Table 16 shows over seven offline brand presence measures above the prompted awareness average (47%). *Numerical distribution* had the highest awareness amongst practitioners (67% or 34/51), followed by *store shelf space* (63%), *out of stock* (59%) and *total distribution points* (57%). This result is in line with some of the top unprompted presence measures elicited, for example, *store shelf space* and *numerical distribution*. Five (or 42%) of the unprompted measures were identified from the prompted awareness measures list. This result is expected as unprompted recall is typically lower than prompted. Furthermore, Study 1 highlighted *shelf space allocation* as a prominent concept or keyword, an outcome that indicates a strong correlation between academic literature and the marketing industry. Furthermore, *distance or distance between competing stores* had the lowest awareness (14%). All respondents were aware of the listed offline brand presence measures from Study 1 and implies there is familiarity with these measures.

Table 16: Offline presence measures unprompted and prompted familiarity among marketers

Measure	Unprompted % (n=51)	Prompted % (n=51)
Distribution	**35**	0
Store shelf space or share of shelf or shelf space allocation	**31**	**63**
Numerical distribution	**22**	**67**
Retail sales	**22**	0
Weighted distribution	**20**	0
Total Distribution Points (TDP) or Total distribution	**16**	**57**
Shelf facings	**9**	0
All Commodity Value (ACV)	**8**	41
Out of Stocks (OOS)% or Duration of OOS or Self stockouts	**8**	**59**
Store or channel coverage	6	0
Scanner or scan data	6	0
Availability or channel wise availability	4	0
Average store SKU	4	0
Display points	4	0
Visibility on shelf or checkout	4	0
Drop size or channel wise drop size	4	0
Assortment width	2	0
Stock or inventory	2	0
Awareness	2	0
Brand health	2	0
Footfall per available store	2	0
Basket value	2	0
Basket penetration	2	0
Productivity	2	0
Call productivity	2	0
Qualified distribution	2	0
Feature space	2	0
Outlet productivity	2	0
Planogram compliance	2	0
Purchase	2	0
Receipt counts	2	0
Stopping power	2	0
Share of category	2	0
Volume	2	0
EPOS data	2	0
Drop size	2	0
Market share	2	0
Merchandising	2	0
Distinctive packaging	2	0
Web presence	2	0
Breadth of distribution or Number of SKUs or inventory	0	**55**
Store sales volume	0	**55**
Total outlet sales	0	**49**
Store traffic or Foot traffic	0	43
Product Category Volume (PCV)	0	35
Category performance ratio	0	28
Distance or Distance between competing stores	0	14
Average	6	47

**Bold numbers = above average *Blue = prompted measure*

Table 17 shows respondent's unprompted and prompted awareness of the online brand presence measures. Respondents recalled 20 different online brand presence measures unprompted. Overall, recall for online brand presence measures was low compared to offline. 17% of respondents mentioned using a third-party website (for example, *eBay* or *Kogan*). *Online sales*, although considered a general marketing measure was the most popular online presence measure recalled unaided by respondents (16%). It is noted this is a general marketing measure yet 8% recalled *share of search* or *search positioning*, and 6% *Search engine results page*. Both measures heavily focus on the brand's search engine positioning. S*hare of search* was also seen as an online equivalent presence measure for *store shelf space*. This connection may have played a role in respondents added awareness. Unprompted, *share of search* (8%) had a lower awareness than offline *store shelf space* (31%). Other measures respondents mentioned were *call to action*, *price comparison to competitors*, *number of favourites* and *paid reach* (each 2%).

All 21 **online** brand presence measures gathered from Study 1 were presented to respondents in Study 2 to examine their recognition of the online brand presence measures (i.e., prompted questions). Results showed *share of search* (43%) and *website page visits* or *visitors* (41%) maintained the highest awareness. 35% expressed they were aware of *website page views* and *website conversion rate.* Respondents were less familiar with *benchmark product price difference* (6%); however, this measure is specific to Google Shopping. Five out of 21 (24%) online brand presence measures from the list were recalled unprompted. This is lower than the results obtained for unprompted offline brand presence measures. Similarly, compared to offline (average awareness was 47%), there was less recognition of online presence measures (average was 25%). Study 1 showed that academic research on online brand presence is anchored to general online concepts such as 'social media' and 'digital marketing'. In Study 2, a different picture emerged, with clear awareness of measures related to online brand presence. Therefore, the literature on online brand presence seems to be lagging with industry trends and awareness.

Table 17: Online presence measures unprompted and prompted familiarity among marketers

Measure	Unprompted % (n=51)	Prompted % (n=51)
Brand is featured/listed on third party website	**17**	0
Sales or online sales	**16**	0
Share of search or search positioning	**8**	**43**
Website conversion /Conversion rate %	**6**	**35**
Search engine results page (SERP)	**6**	**26**
Inventory or SKUs sold	**6**	0
All commodity volume (ACV)	4	0
Distribution	4	0
Website visits / Website visitors / Website traffic	2	**41**
Website page views (or page impressions) / Number of views	2	**35**
Availability	2	0
Price comparison to competitors	2	0
Call to action (CTR)	2	0
Market share	2	0
Number of favourites	2	0
Paid reach	2	0
SKUs selling	2	0
Average time per visit	2	0
Placement	2	0
Brand visibility	2	0
Mobile website page views	0	**29**
Social media brand impressions	0	**29**
Mobile website visits / visitors	0	**28**
Number of active app users	0	**28**
Social media brand page reach	0	**28**
Share of voice on social media	0	**26**
Gross merchandise value (GMV)	0	22
Number of app downloads / app installations	0	22
Social media engagement / insights	0	22
Mobile search engine results page (mobile SERP)	0	20
App ranking	0	18
Product Category Search Volume (PCSV)	0	16
Mobile product category search volume (mobile PCSV)	0	12
Average revenue per app user	0	12
Benchmark product price difference (BPPD) %	0	6
Average	4	25

**Bold measures = above average *Blue = prompted measure*

The results of Study 2 revealed that respondents were aware of various offline and online brand presence measures. Some offline brand presence measures included *numerical distribution, store shelf space* and *out of stock*. While online brand presence measures include *share of search, website visits / website visitors* and *website page views*. Thereby, in answering RQ4a, Study 2 results suggest **respondents, when prompted, have reasonable awareness of the presence measures listed in the literature.**

4.3.3 Presence measures use (RQ4b)

Table 18 demonstrates the offline brand presence measures that respondents use, frequency of use and perceived useful. *Numerical distribution* and *total distribution points* (around half of respondents or 51%) were the most used measures to monitor offline presence. *Store shelf space* was monitored by 47% of respondents, while *distance* was the least monitored by participating respondents. Seven offline brand presence measures were above the average of 29%. The top four offline presence measures respondents were aware of, were also reflected as the top measures used (Table 18). For example, 67% were aware of *numerical distribution* and 51% used *numerical distribution* to monitor brand presence; 57% were aware of *TDP* and 51% used *TDP* to monitor brand presence. This suggests the top measures respondents recognise are also used to track brand presence, and was also supported through a strong, positive Pearson correlation of 0.82.

However, generally, results showed less usage (average 29%) than awareness (average 47%) of the brand presence measures. This could be because high awareness does not equate to the same usage level (Laurent et al. 1995). For example, many respondents may know about a measure, but the measure does not match their particular brand goals or use another measure. Generally, the offline brand presence measures introduced in Study 1 practitioners are aware of are also being used to measure brand presence performance.

Table 18 also presents the average number of times the offline presence measures are used and the subsequent average days between its use. For example, *store* or *foot traffic* was used by 12% of practitioners, who on average used or referred to it 127 times per year (or every third day), whereas *share shelf space* was monitored on average 12 times a year or every 30 days. The use and frequency of use had a weak and negative correlation (r = -0.34). The frequency of managers monitoring their brand depends on the brand goals, efficiency and how easy to monitor. For example, measures like *numerical distribution* may be outsourced to market research companies and expensive, therefore could be monitored monthly or half yearly. In comparison, *store or foot traffic* can be measured daily as once the technology is in place, stores can easily keep track. Indeed, for some managers measuring daily and fortnightly may not be feasible for offline contexts whilst, measuring yearly and half yearly could be inadequate for the brand goals (Lynch n.d.).

Table 18: Offline own-brand presence use, annual frequency use and perceived usefulness

Measure	Prompted Awareness (%)	Use (%)	Avg. number of uses per year	Avg. days between use	Avg. Useful-ness score
Numerical distribution	67	51	14	26	8
Total Distribution Points (TDP)/ Total distribution	57	51	15	24	9
Store shelf space or allocation/ Share of shelf	63	47	12	30	8
Breadth of distribution/Number of SKU/ inventory	55	45	22	17	8
Store sales volume	55	33	87	4	9
Out of stocks (OOS)%/ OOS Duration/ Self stockouts	59	31	23	16	7
All Commodity Value (ACV)	41	29	26	14	8
Product Category Volume (PCV)	35	26	30	12	8
Store traffic or Foot traffic	43	12	127	3	7
Total outlet sales	49	12	77	5	7
Category performance ratio	28	10	8	46	7
Distance or Distance between competing stores	14	4	8	46	7
Average	47	29	37	20	7.9

Table 19 below shows the usage of the online brand presence measures for own branded channels. 13 of the 21 online brand presence measures were found to be equal or above the average use (14%) on own branded channels. *Social media engagements* were the most monitored measure (26% or 13/51 respondents), followed by *website visits* (22%) and *social media reach* (22%). It is noted that the top selected online presence measures respondents were aware of and used, can also be relevant for other general marketing measures apart from presence measures, for example, *social media engagements*, *website views* and *website visitors*. In comparison, more specific online presence measures like *gross merchandise value* (14% usage) and *product category search volume* (4% usage) were not as popular measures used by respondents. No participants recorded *benchmark product price difference* as an online presence they monitor. The second least commonly monitored measure was *product category search volume*.

There was a moderate positive correlation between online measure awareness and use for own brand channels (r = 0.61). For some measures the use of the brand presence measures was comparatively lower than its awareness. For example, 41% of respondents are aware of *website visits* while, 22% use the measure for the brand's own channels. This suggests

respondents may be aware of the brand presence measures but not using the measures for their own channels.

The average number of times respondents monitor brand online presence was 33 times per year (every 10-11 days). *Website conversion* had the highest average number of days used per year with 94 times, or every fourth day. *Share of search* was monitored on average 16 times a year or every 23 days. There was no correlation between use and frequency of use. This may be due to managers being able to access data and monitor as frequently at a timeframe that suits their brand goals and strategies.

In comparison to the top offline brand presence measures usage (*numerical distribution* and *TDP* with 51%), there was significantly low usage of the top online brand presence measure *(social media engagement* with 26%). This suggests less familiarity with using online measures to offline. It is also noted there were more online measures then offline presence measures, therefore its likely percentage of respondents using all or most of the measures is spread out, resulting in smaller percentage usage for each brand presence measure.

Table 19: Online own-brand presence use, annual frequency use and perceived usefulness

Measure	Prompted Awareness (%)	Own brand use (%)	Avg. number of uses per year	Avg. days between use	Avg, Useful-ness score
Social media engagement / insights	22	26	23	16	8
Website visits / Website visitors	41	22	25	15	6
Social media brand page reach	28	22	27	14	8
Website page views (or page impressions)	35	20	28	13	7
Mobile website page views	29	20	36	10	7
Mobile website visits / visitors	28	20	24	15	7
Search Engine Results Page (SERP)	26	18	20	18	7
Share of search	43	18	16	23	7
Social media brand impressions	29	18	32	11	8
Website conversion /Conversion rate %	35	14	94	4	8
Gross Merchandise Value (GMV)	22	14	75	5	8
Share of voice on social media	26	14	17	21	6
Mobile search engine results page (SERP)	20	12	17	21	6
Mobile Product Category Search Volume (PCSV)	12	12	24	15	7
Mobile share of search	33	12	20	18	7
Average revenue per app user	12	10	42	9	7
Number of app downloads / app installations	22	6	39	9	8
App ranking	18	6	36	10	9
Number of active app users	28	6	39	9	9
Product Category Search Volume (PCSV)	16	4	32	11	8
Benchmark Product Price Difference (BPPD) %	6	0	0	0	6
Average	25	14	33	13	7.4

Table 20 illustrates respondents' use of the online measures on third party channels. *Search engine results page (SERP)* was the most monitored online presence measure (almost one in five respondents). There was a weak positive correlation between awareness and use of the brand presence measures on third party channels (r = 0.24). 43% of respondents indicated that they were aware *search of search*, but only 18% recorded using it to monitor online presence (own channels and third-party channels). This can be deemed relatively low and supports the conclusion that awareness of the online brand presence measures does not equate to usage.

An average of 11% used third-party channels, while an average of 14% used own-branded channels (Table 19). The slightly lower frequency use for third party channels may be due to likely extra costs involved. Moreover, 16% of respondents used *mobile website visits or visitors*, while 14% used *website conversion* and *product category search volume.* The results also showed *mobile app downloads/ installations* and *website page views* as the least monitored through third party channels (both 6%). The usage is low considering the awareness for *mobile app downloads/ installations* was 22% and *website page views* was 35%. Despite the low awareness of *benchmark product price difference*, 12% of respondents used it for third party channels. Nonetheless, respondents somewhat used the various presence measures for third party channels while *SERP* was the most used third party brand presence measure.

There was a low to moderate correlation between third party measure use and the frequency use (r = 0.43). Table 20 also displays *mobile SERP* was monitored more frequently (153 times per year or every second day), followed by *website page views* (126 times per year), *SERP* (119 times per year) and *share of search* (112 times per year). The results show *app ranking* and *BPPD* were monitored six times per year or on average every 61 days.

Table 20: Third-party brand presence use, annual frequency use and perceived usefulness

Measure	Prompted Awareness (%)	3rd party use (%)	Avg. number of uses per year	Avg. days between use	Avg. Useful-ness score
Search Engine Results Page (SERP)	26	20	119	3	7
Share of search	43	18	112	3	7
Mobile website visits / visitors	28	16	83	4	6
Website conversion /Conversion rate %	35	14	83	4	8
Product Category Search Volume (PCSV)	16	14	87	4	8
Website visits / Website visitors	41	12	91	4	7
Benchmark Product Price Difference (BPPD) %	6	12	6	61	6
Gross Merchandise Value (GMV)	22	12	89	4	8
Mobile search engine results page (SERP)	20	12	153	2	6
Mobile share of search	33	12	110	3	7
Social media brand page reach	28	12	32	11	8
Social media engagement / insights	22	12	22	17	8
Share of voice on social media	26	12	98	4	6
Mobile website page views	29	10	98	4	7
Mobile Product Category Search Volume (PCSV)	12	10	108	3	7
Number of active app users	28	10	8	43	9
App ranking	18	8	6	61	9
Average revenue per app user	12	8	18	21	7
Social media brand impressions	29	8	25	14	8
Website page views (or page impressions)	35	6	126	3	7
Number of app downloads / app installations	22	6	7	52	8
Average	25	11	70	3	7.4

In summary, in relation to RQ4b the results of Study 2 reveal that respondents had a high level of usage of the brand presence measures gathered from the literature. Results showed a high proportion of respondents used offline brand presence measures *numerical distribution*, *TDP* and *store shelf space*. At the same time, among the most used online brand presence measures, include *social media engagement*, *website visits* and *social media reach* were. Respondents also highly relied upon third-party measures such as *SERP*,

share of search and *mobile website visits*. On average most respondents monitored their offline and online brand presence monthly.

4.3.4 Outsourced measures (RQ4c)

Literature lacks information on the extent to which brand managers rely upon external sources (e.g., market research companies or online analysis tools) when evaluating brand presence. The findings of Study 2 show majority of respondents used external market research companies, particularly Nielsen. In more detail, Table 21 shows for example an average of 71% of respondents used Nielsen's *total outlet sales* to evaluate offline brand presence.

Table 21: Offline external market research companies' usage

Measure (n=51)	Nielsen (%)	IRI (%)	Ipsos (%)	Other (%)
Total outlet sales	100	0	0	0
All Commodity Value (ACV)	83	17	0	0
Store sales volume	81	9	0	9
Total Distribution Points (TDP)	80	15	0	5
Breadth of distribution	80	13	0	7
Product Category Volume (PCV)	78	22	0	0
Numerical distribution	77	14	0	9
Out of Stocks (OOS)%	72	9	0	18
Share of shelf	69	13	6	13
Category performance ratio	50	50	0	0
Store traffic or Foot traffic	50	0	50	0
Distance	33	0	33	33
Average	71	14	7	8

*figures based on number of respondents choosing that measure

Table 22 shows the analysis tools respondents used to monitor online brand presence. The most prominent online analysis tool was Google analytics (an average of 62% of respondents) to derive important information such as *website page views, share of search* and *BPPD* only. Respondents also reported using SimilarWeb to monitor social media or mobile related measures. In contrast, only 2% of respondents claimed to use Hootsuite

(e.g., to monitor *mobile PCSV*). Furthermore, an average of 31% indicated using 'other' tools not listed in the survey, such as SEMrush, Brandwatch, Sprinklr and Meltwater.

Table 22: Online external analysis tools usage

Measure (n=51)	Google Analytics (%)	Hootsuite (%)	Similar-web (%)	Other (%)
Website page views (or page impressions)	100	0	0	0
Website visits / Website visitors	100	0	0	0
Website conversion /Conversion rate %	100	0	0	0
Search Engine Results Page (SERP)	100	0	0	0
Product Category Search Volume (PCSV)	100	0	0	0
Share of search	100	0	0	0
Benchmark Product Price Difference (BPPD) %	100	0	0	0
Gross Merchandise Value (GMV)	60	0	0	40
Mobile website page views	50	0	0	50
Mobile website visits / visitors	50	0	0	50
Mobile search engine results page (mobile SERP)	45	0	9	45
Mobile Product Category Search Volume (PCSV)	33	33	0	33
Mobile share of search	29	0	14	57
Number of app downloads / app installations	20	0	20	60
Social media engagement / insights	0	0	25	75
Share of voice on social media	0	0	20	80
Average	62	2	6	31

*figures based on number of respondents choosing that measure

The top six online presence measures in Table 23 are deemed popular in-built measures on various web-based and social media platforms. In particular, social media engagements/ insights (16%) can easily be found on Instagram and Facebook insights page for free. There is vast choice of analytic tools managers can use to enhance brand availability online. However, it is also clear that once again academic literature on the matter is lagging behind industry practice. These results contribute to RQ4c by demonstrating the extent respondents use inbuilt analytics to monitor online brand presence.

Table 23: Inbuilt analytics usage

Measure	% (n=51)
Social media engagement / insights	16
Website page views (or page impressions)	14
Search Engine Results Page (SERP)	12
Social media brand page reach	12
Social media brand impressions	12
Website conversion /Conversion rate %	10
Mobile website page views	8
Mobile website visits / visitors	8
Share of voice on social media	8
Product Category Search Volume (PCSV)	6
Benchmark Product Price Difference (BPPD) %	6
Mobile SERP	6
Mobile PCSV	6
Website visits / Website visitors	4
Share of search	4
Mobile share of search	4
Number of app downloads / app installations	4
App ranking	4
Number of active app users	4
Gross Merchandise Value (GMV)	2
Average revenue per app user	2
Average	7

Therefore, the results answer RQ4c by indicating nearly 62% of respondents use Google analytics as an online analysis tool to monitor brand presence. A proportion of respondents use 'other' online analysis tools (31%). Whereas, for offline brand presence over 70% of respondents use Nielsen to monitor, while almost 14% use market research company IRI.

4.3.5 Presence measures usefulness (RQ4d)

Respondents were asked to rate their perceived usefulness of the offline brand presence measures (Table 24). This was evaluated by respondents scoring the brand presence measures from 0 (least useful) to 10 (extremely useful). Seven out of 12 offline brand presence measures scored average of 8 or above. One third of respondents noted using

store sales volume and scored an average of 9 (out of a possible ten) and was perceived to be one of the most useful offline brand presence measures. *Total distribution points* scored an average 9/10 and *numerical distribution* and *share of shelf* both scored 8/10, and around 50% of respondents use these measures. The most used offline brand presence measures were also rated as the most useful. This pattern in the result is not surprising, since there is a well-documented correspondence between people behaviour and their overall attitudes or evaluations (Barwise & Ehrenberg 1985; Bird et al. 1970; Dall'Olmo Riley et al. 1998; Romaniuk et al. 2012).

Table 24: Offline brand presence measures perceived usefulness

Measure	Avg. usefulness score
Store sales volume	9
Total Distribution Points (TDP) or Total distribution	9
Numerical distribution	8
Store shelf space or Share of shelf or Shelf space allocation	8
Product category volume (PCV)	8
All commodity value (ACV)	8
Breadth of distribution or Number of SKUs or inventory	8
Total outlet sales	7
Out of Stocks (OOS)% or Duration of OOS or Self stockouts	7
Distance or Distance between competing stores	7
Category performance ratio	7
Store traffic or Foot traffic	7
Average	8

Table 25 also displays respondents perceived usefulness of the various online brand presence measures and answers RQ4d. The *number of active app users* had the highest average score (9/10) and was deemed to be the most useful online presence measure. This is also higher than the average of 7/10. Finally, the average scores of the perceived usefulness of offline and online brand presence measures were close, suggesting that respondents find evaluating brand presence in these different domains equally useful.

Table 25: Online brand presence measures perceived usefulness

Measure	Avg. usefulness score
Number of active app users	9
App ranking	9
Website conversion /Conversion rate %	8
Number of app downloads / app installations	8
Gross Merchandise Value (GMV)	8
Social media brand page reach	8
Social media brand impressions	8
Social media engagement / insights	8
Product Category Search Volume (PCSV)	8
Search Engine Results Page (SERP)	7
Average revenue per app user	7
Mobile Product Category Search Volume (mobile PCSV)	7
Mobile share of search	7
Mobile website visits / visitors	7
Share of search	7
Website page views (or page impressions)	7
Mobile website page views	7
Mobile search engine results page (mobile SERP)	6
Website visits / Website visitors	6
Benchmark Product Price Difference (BPPD) %	6
Share of voice on social media	6
Average	7

4.3.6 Other measures

Additionally, respondents were asked to state any offline presence measures they were aware of and not mentioned in the measures lists above. **Seven additional offline brand presence measures emerged**: *Depth of distribution* (how deep the product range distribution is)*, Number of off-locations points present in the store* (shows how much more is sold beyond the home shelf), *Display points* (to understand aisle presence*), Monitoring internal data accounts* (more reliable than tracking number of purchasing accounts)*, Quality of shelf, Share of distribution points* and *Value and volume share* – all tracked, on average, on a monthly basis.

Similarly, respondents mentioned **two additional online brand presence measure** not included in the inventory: *Product positioning on retailer website* and *Share of search on third party apps and e-commerce platforms* (all monitored monthly, on average).

4.4 Chapter summary

Combining the results of a SLR (Study 1) and practitioner survey (Study 2), the final inventory of brand presence measures is as follows (the details of measures derived from Study 1 are summarised in tables 9,12,13, and 14. Details of the additional measures gathered from Study 2 are derived from Section 4.3.6)

Offline brand presence measures:

- Numerical distribution
- All commodity volume
- Product category volume
- Total distribution points (total distribution)
- Category performance ratio
- Breadth of distribution (number of SKUs or inventory)
- Out of stocks (duration of OOS or shelf stockouts)
- Store traffic (foot traffic)
- Store sales volume (total outlet sales)
- Total outlet sales
- Store shelf space (share of shelf or shelf space allocation)
- Distance (distance between competing stores)
- Depth of distribution
- Number of off-locations points present in the store
- Display points
- Monitoring internal data accounts
- Quality of shelf
- Share of distribution points
- Value share or volume share

Online brand presence measures:

- Website page views (or page impressions)
- Website visits (website visitors)
- Website conversion (conversion rate)
- Search engine results page
- Product category search volume
- Share of search
- Benchmark product price difference
- Gross merchandise value
- Mobile website page views
- Mobile website visits (visitors)
- Mobile search engine results page
- Mobile product category search volume
- Mobile share of search
- Number of app downloads (app installations)
- App ranking
- Number of active app users
- Average app revenue per user
- Social media brand page reach
- Social media brand impressions
- Social media brand engagement or insights
- Share of voice on social media
- Product positioning on retailer website
- Share of search on third party apps and e-commerce platforms

The lists above address RQ1 and RQ2. In terms of RQ3, the combination of Study 1 and Study 2 revealed the following correspondences between offline and online brand presence measures. For offline measure, *all commodity volume (ACV)* the online equivalent is *gross merchandise value*. The online equivalent measures for *product category volume (PCV)* include *product category search volume (PCSV)*, *search engine results page (SERP)* and *mobile app ranking*. For *store or foot traffic* the online equivalent measures are *website page views, website visits/visitors* and *social media engagement*. The online equivalent

measures for *store shelf space/share of shelf/ shelf space allocation* are *product category search volume (PCSV), share of search* and *mobile app ranking*.

For the fourth and final research question, the key findings were as follows.

The top three **offline** brand presence measures in terms of **awareness** were *numerical distribution, store shelf space* and *out of stock*. Results showed a moderate positive relationship between prompted and unprompted awareness. The SLR determined *product category volume (PCV), all commodity volume (ACV), out of stock* and *store shelf space* were among the most cited in the inventory. Yet, *numerical distribution*, *store shelf space, out of stock and total distribution points* attained greatest prompted awareness. This indicates that academic literature is somewhat in line with practice when it comes to measuring offline brand presence. The top three **online** brand presence measures respondents were most aware of include *share of search, website visits/visitors* and *website page views (or page impressions).* Findings suggest no correlation between unprompted and prompted awareness of these measures. Furthermore, despite the adequate awareness among respondents, the SLR revealed very limited research discussing these measures, indicating that the academic literature is lagging behind practice in relation to evaluating online brand presence.

The top three **offline** brand presence measures **used** were: *numerical distribution, total distribution points (TDP)* and *store shelf space*. On average respondents monitored offline presence every 20 days. There was a strong correlation between awareness and use of measures. The top three **online** brand presence measures **used** for **own branded channels** were *social media engagement / insights, website visits / visitors* and *social media brand page reach*. On average respondents monitored brand presence 33 times in a year. The top three **online** brand presence measures for **third party channels** were, *search engine results page (SERP), share of search and mobile website visits / visitors*. On average respondents monitored third party brand presence 70 times in a year. Most respondents **outsourced** to market research company Nielsen to track and monitor **offline** brand presence and Google analytics for **online** brand presence.

Finally, the most **perceived useful offline** brand presence measures were *store sales volume* and *total distribution points (TDP)*. The most **perceived useful online** brand presence measures were *number of active app users* and *app ranking*. The next chapter will discuss and critically analyse these results in further detail.

Chapter 5

5 Discussion, Implications and Conclusions

5.1 Chapter overview

This chapter discusses Chapter 4 findings, linking them back to the thesis research aims and to relevant marketing literature, where applicable. It also outlines the thesis theoretical and practical implications, together with a set of limitations and future research directions.

Section 5.2 discusses the meaning and implications of the key findings of the systematic literature review (Study 1) and the practitioners' survey (Study 2). The section connects the results with existing physical availability literature, clarifying how the thesis addressed the important knowledge voids identified in Chapter 2. Next, section 5.3 outlines the theoretical contributions this thesis makes to existing marketing knowledge on the presence aspect of physical availability. Section 5.4 outlines the managerial contributions resulting from this thesis, translating the key findings into guidelines for measuring and tracking physical availability and brand presence. The section also explains how this thesis narrows the gap between academic research and industry practice surrounding the concept of physical availability. Section 5.5 discusses the limitations and highlights future research directions. Finally, Section 5.6 presents a conclusive summary of this thesis.

5.2 Discussion

The marketing literature has returned an inconsistent documentation of concepts and measures capturing the notion of physical availability, especially the brand presence element of it. The problem is more pronounced in relation to the online domain (e.g., e-commerce, m-commerce and social commerce), showing a clear lag between industry

practice and scholarly marketing research. In the literature there is also a lack of information on the possible correspondence between specific offline and online brand presence measures, which is again at odds with well-established multi-channel and omni-channel marketing strategies. Finally, there is very limited documentation of managerial views and practices concerning physical availability. These issues formed the momentum for this thesis. The first research objective was to generate an inventory of offline, online and equivalent brand presence measures. The second objective entailed gathering practitioners' views on brand presence measurement.

The next sections recap the findings and links them back to relevant research questions objectives and relevant literature.

5.2.1 Offline and online brand presence measures (RQ1 and RQ2)

> Research Objective 1: To compile an inventory of measures to assess the presence aspect in physical availability accurately and consistently for both scholars and practitioners.

Chapter 2 explained that physical availability is a well-established researched area; however, there is discrepancy in the terms describing physical availability, especially the brand presence element of it and related measures. Such variation in terms and measures for same concepts can be confusing for academics and practitioners alike. The inconsistency surrounding conceptual and empirical research on physical availability could hinder future research endeavours, especially replication of studies. It can also complicate the interpretation of trends, due to the risk of drawing wrong conclusions from data and the impossibility to turn scholarly research into clear practical recommendations (Surawski 2019).

Due to the complexity of online physical availability, this thesis segregated the online domains. The number of online physical availability (presence) keywords and measures is greater than offline. Therefore, an implication to the study is producing a larger list of online measures and resulted in a longer list of presence measures than offline.The SLR presented (Study 1) a total of 12 offline and 21 online brand presence measures, which

were identified and catalogue in a single list including information on each measure's definition, calculation, relevance, limitations, and citations. Additionally compared each presence measure to other presence measures. The creation of this repository of measures is greatly beneficial to academic research and practice. The repository can serve as reference for future studies as well as practices involving the use of brand presence measures. It can also enable future researchers to build generalisable new knowledge in the area. The inventory significantly extends the work of Ailawadi and Farris (2017) and Farris et al. (2016); Farris et al. (2010). First, the list was derived from a SLR supported by bibliometrics analyses, which was not evident in these two previous studies. Second, the list concentrated on the most relevant aspect of physical availability, which is brand presence. In contrast, Farris et al. (2016); Farris et al. (2010) and Ailawadi and Farris (2017) maintained a very broad take on physical availability. Third, the list that this thesis created addressed the limited record of online brand presence measures in literature, which until now primarily included business sources rather than academic research (App Radar 2021; Ell 2018; Manifest 2018). Finally, Study 1 of this thesis identified direct comparisons of existing online and offline brand presence measures, which is a unique contribution not addressed in the aforementioned past studies. Considering the possible implications for multi-channel and omni-channel strategies, this point warrants more reflection, as discussed next.

5.2.2 Equivalent brand presence measures (RQ3)

Managers using offline channels to enhance the physical availability of brands are now increasingly using multichannel and omnichannel strategies to guarantee brand presence in digital domains (Jo et al. 2020; Simone & Sabbadin 2018). These strategies can create more opportunities for consumers to access the brand above and beyond standard brick-and-mortar (offline) presence or availability (Kumar & Venkatesan 2005). However, online channels can be very competitive. For example, to be at the top position of search engines results, bespoke digital marketing tactics (e.g., search engine optimisation and search engine marketing) need to be in place. The online domain is also evolving at a faster pace than offline contexts, which calls for constant update of marketing knowledge. These circumstances have created many challenges and calls for research into insights and framework to guide managers (Neslin et al. 2006). In particular, there is a strong need to

bridge the offline and online domains and assist brand managers in understanding both online and offline brand presence tactics and measures.

Unfortunately, marketing literature on physical availability lacks a comparison and equivalence inventory of offline and online brand presence measures, with limited insights into potential synergies to attain brand growth. To reduce the knowledge gap, this thesis found twelve brand presence measures and of which four offline measures had equivalent online measures. Moreover, eight offline brand presence measures were highlighted that could be used for both settings. This information provides guidance on which measures are translatable into online and help evaluate physical availability. Without adequate information or guidance on using both offline and online channels can lead to loss in brand sales and customer dissatisfaction (Cui et al. 2006). A clarification of equivalent online brand presence measures is a unique contribution to marketing knowledge linked to physical availability, especially research on online brand presence. In this regard, the results of Study 2 of this thesis form a much-needed foundation for future physical availability and brand presence studies.

5.2.3 Brand presence measures in practice (RQ4)

> Research Objective 2: compiling the offline and online brand presence measures known and used by marketing practitioners, across different consumer good brands.

Although there are some marketing studies that concentrated on measuring managers' views on metrics and measures in use (Bendle et al. 2010; Clark 2000; Sampaio et al. 2011), to the best of the thesis author's knowledge, to date, no previous studies have recorded or explored about practitioners' awareness, use and perceptions of online and offline brand presence measures. Bendle et al. (2010) noted marketing metrics matter to marketing managers and some companies can spend millions of dollars on experimenting tools and measures. This directed an assessment of practitioners' views (RQ4) via a survey appraising brand managers' awareness, use and perceived usefulness of various offline and online brand presence measures (Study 2), aimed to bring theory and practice together. The implications can be summarised as follows.

5.2.3.1 Brand presence measures awareness in practice (RQ4a)

It is crucial to understand if managers are aware of measures available to gauge the performance of brands, since without a sound understanding of this aspect it is impossible to evaluate the concrete gap between academic research and practice. Awareness of tools, measures and tactics is also a logical pre-requisite for using them. To address this issue, the survey included in Study 2 used unprompted and prompted questions to examine managers' awareness of the inventory of presence measures obtained through Study 1. It emerged that for both offline and online brand presence measures awareness was greater when the measures were prompted. This finding is consistent with various marketing studies in areas such as advertising, consumer behaviour and branding, which report unprompted recall of a certain concept investigated (in this case of this thesis the measures of brand presence) is typically lower than prompted recognition (Krugman 1986; Laurent et al. 1995; Romaniuk et al. 2004; Romaniuk 2006). The insight into practitioners' awareness of brand presence measures also revealed some noteworthy differences between the offline and online domains, as follows.

Offline brand presence measures awareness

The results showed not all prompted and unprompted responses for awareness of offline brand presence matched, which could be due to inconsistencies in the names of measures used by practitioners. For example, an unprompted elicited measure was *footfall per available store* and could be deemed similar to the prompted measure *store* or *foot traffic* from literature. Moreover, unprompted responses revealed that managers associate brand presence measurement to very broad terms that are not actual measures such as *distribution* and *retail sales*. Although these concepts are different to the ones that emerged in Study 1, this result suggest that in marketing practice there is a level of confusion surrounding this important concept. In essence, the unprompted responses shows what managers think they should be doing; in contrast, the prompted respondents returned a more realistic view on what managers 'ought' to be doing (Macdonald & Sharp 2003).

Online brand presence measures awareness

Similarly, to the results on the awareness of offline brand presence measures, many respondents mentioned sales-based measures instead of specific presence measures. Relying on broad presence measures (e.g., sales-based) may not resemble actual presence measures and suggests respondents' ambiguity towards the concept of brand presence. Therefore, the broad measures are not specially calculating brand presence, which could hinder building presence in the long run. Moreover, the lack of familiarity with specific online brand presence measures was greater than for offline measures. Although a possible explanation for this finding could be the substantial reliance on third party services (like Amazon or eBay) and analytics tools, this is an issue for practitioners exploring and investing in online, because they may not be able to take full advantage of brand presence in digital domains (Neslin et al. 2006). It is also worth highlighting that top brand presence measures (e.g., s*hare of search*) heavily focus on the brand's search engine positioning. Search engine positioning has the capacity to boost search engine rankings, thereby affecting the number of site visits, traffic and chance of sale (Glomelakis & Veglis 2016; Winter & Alpar 2020). The measure was also perceived to be an online equivalent presence measure for *shelf space*. This connection may have played a role in respondents' higher awareness.

5.2.3.2 Presence measures use in practice (RQ4b)

Results of Study 2 of this thesis showed that the use of brand presence measures (offline and online) was lower than awareness. For instance, results showed *total outlet sales* prompted awareness is 49%, but only 10% of respondents use it to monitor their brand offline. This is expected, as respondents can be aware of a measure but not use it (Laurent et al. 1995). That is, many respondents may know of a measure, but the measure does not match their goals and or might be using another measure. In this regard, any mismatch between measure awareness and use that emerged from this thesis could assist academics to further understand the gap between theory and practice and develop future research directions with real world appeal.

Interestingly, Bendle et al. (2010) discussed the use of general marketing measures and mentioned five offline measures of brand presence, which also emerged in Study 2 of this

thesis. In particular, this thesis specifically returned a similar picture regarding the use of the *ACV* and *out of stock* measures. However, some of the results of this thesis were actually at odds with Bendle et al. (2010) work. For example, *numerical distribution* and *total distribution* were used by over half the respondents, while Bendle et al. (2010) reported far less usage for both measures. Similarly, for *PCV* this thesis found a lower level of usage than the study by Bendle et al. (2010).

With increasing demands on online business, firms are feeling the pressure to enhance brands' digital presence (Tiago & Veríssimo 2014). Findings of this thesis have established that the increase in strategies to enhance online brands presence do not necessarily correspond to a growth in research. There are no previous detailed studies or literature examining online presence measures practitioners use, consequently there are no results to compare.

Another interesting outcome of Study 2 concerned the frequency of use of brand presence measures, or how often managers track these measures. In this regard, it was established that on average managers directly monitored offline and online brand presence every ten days or so. In contrast, indirect monitoring of brand presence (i.e., tracking that relies on third party services and tools) was far more frequent. The use and frequency use of measures should reflect a business strategic goals; otherwise, unduly and unhelpful hording of information that is not managerially relevant is likely to occur (Keegan et al. 1989). Therefore, the findings of this thesis could guide managerial decisions on the outsourcing of brand presence measurement and the frequency of measurement.

5.2.3.3 Outsourcing brand presence measures RQ4c

Brands tend to use market research companies to answer questions about customers, competitors and how to increase brand performance. The findings of Study 2 clearly confirm that this is the case for offline and online brand presence evaluation. In more detail, all respondents outsourced the appraisal of at least some offline brand presence measures. They mainly used Nielsen (71%), being highly ranked in the marketing world (Bowers 2020).

The majority of respondents (88%) also relied on external services to measure online brand presence. In this instance, 50% used Google analytics to monitor brand presence. According

to Dubois (2022), more than half of the top 10,000 websites around the world use Google Analytics. This aligns with the results of this thesis. Since Google analytics is a robust, reputable and free tool that managers can use to track and analyse website or web performance (e.g., traffic, visitors, and keyword searches), it is likely to be accessible for both small and large companies. Overall, the results exemplify a high preference for outsourcing to monitor online and offline brand presence. Current literature prior to this thesis lacked this information.

5.2.3.4 Brand presence measures perceived usefulness (RQ4d)

Academic research is often perceived to have low relation to management practices (Susman & Evered 1978). In fact, some practitioners find academic language difficult to understand and unrelatable (Barrett & Oborn 2018). The authors suggest collaborating with practitioners will make the findings more useful to other practitioners and help develop the industry. Rigby (2001) discovered that low numbers of management measures and techniques gathered from academia were actually utilised or found useful by practitioners. Therefore, the perceived usefulness of the brand presence measures was evaluated in Study 2 of this thesis. Likely factors shaping the perception of usefulness for managers could include, cost effectiveness, user friendliness and addressing goals (Davis 1989). However, to minimise response bias no criteria were given to respondents on what "usefulness" meant and own interpretation was allowed. There was a similar level of perceived usefulness, on average, for both offline and online brand presence measures (offline scoring 8/10 and online scoring 7/10). Results also showed that the claimed use of specific measures was linked to the usefulness score. This outcome is well aligned to the widely documented correspondence between respondent behaviour (e.g., use of a certain tool) and their attitude (e.g., perception of usefulness) (Barwise & Ehrenberg 1985; Bird et al. 1970; Romaniuk et al. 2012).

The next sections will delve into the academic and managerial contributions of this thesis.

5.3 Academic contributions

The outcomes of the current research add to the marketing literature on physical availability, thanks to consolidating existing offline and online brand presence measures, linking them to current marketing practice. Thereby, this thesis makes several academic contributions.

First, the physical availability concept is widely discussed in literature however, it is often described in various terms, with different authors using different ways to measure offline physical availability and brand presence (Olver & Farris 1989; Reibstein & Farris 1995). The connection of terms for physical availability and the measures revealed in the study resolved the differences and reduced confusion of terms. Academics will benefit from this thesis, thanks to reducing effort and valuable time identifying various terms for the same concept (Fetscherin & Heinrich 2015; Gurzki & Woisetschläger 2016; Tranfield et al. 2003).

Second, this thesis extends the work of Ailawadi and Farris (2017) and Farris et al. (2016); Farris et al. (2010) by refining the existing knowledge on general measures of physical availability. In this thesis, a repository of offline brand presence measures was created resulting from complementary studies: a systematic literature review and a practitioners' survey. The repository details the definition, calculation, limitations and comparisons of measures. This consolidated information will allow academics to conveniently locate this valuable marketing knowledge 'all in one place'.

Third, although some journal articles and business reports have begun recording online physical availability measures academic research on online brand presence is still scarce. Moreover, the online physical availability area is still developing and therefore, there was a need to consider non-academic sources (e.g., business reports or articles) to complement to lack of academic sources regarding presence measures and the concept. In this regard, this thesis extends the literature by creating a specific inventory of online (e-commerce, m-commerce, and social commerce) presence measures. This unique inventory will enable academics in comparing and choosing the measures best suited for future research and/or to extend on this knowledge.

Fourth, composing an offline and online equivalence presence measures, and uncovering which offline measure can be used for online setting will assist academics to understand the connection between the offline and online measures. Adding an online channel can

increase brand growth, however there is still need for more research (Neslin et al. 2006). In this regard, this thesis can become the foundation for research on multichannel and how to ensure reaching customers at every touch point.

Fifth, the method used to elicit respondent awareness of concepts such as brands were adapted for marketing measures. This is something new and this thesis confirmed it can be adapted to gauge practitioners' views. Moreover, the comparison of prompted and unprompted awareness research on online and offline brand presence measures has not been conducted in other studies and therefore extends the current literature**.**

Sixth, academic marketing literature is perceived to have limited influence on practice and sometimes techniques and tools gathered from literature are underutilised by practitioners (Hughes et al. 2018). This thesis reinforces the relevance of producing academic insights that aligns with brand managers' views and knowledge. Understanding practitioners' views will link practice and theory. The documented practitioners' awareness, usage, frequency of use and how useful they find various brand presence measures from literature will benefit many practitioners who are time poor and do not actively search for relevant scholarly articles (Ankers & Brennan 2002). Furthermore, the findings on outsourcing will also provide a benchmark and comparison if managers have been relying on external market research companies, agencies, consultants and data providers to inform their decision (Ankers & Brennan 2002; Crosier 2004; Piercy 2002). Literature lacks managers' perspective on outsourcing measures and this finding will contribute to literature.

Finally, this thesis serves as an example (or template), which could be used to re-align academic knowledge and practice for other crucial aspects of marketing – for example, the other components of physical availability, or the other pillar of brand growth, mental availability.

5.4 Managerial contributions

The main managerial contributions of this thesis are as follows:

First, the knowledge on measures' use, usefulness, frequency of use and top ranking could help brand managers evaluate and compare the measures they presently use and/or may find suitable to use in future. The detailed inventory can also help benchmark and evaluate brand's own presence in the market.

Second, the consolidated table of measures with details will be convenient to refer to, forming the basis for deciding on which offline and online brand presence measures to use. In essence, it is hoped that the findings of this thesis can be shared to the broader marketing community and build brand managers' confidence in using various techniques evaluating the most important aspect of physical availability: brand presence. For example, the knowledge of the most popular and/or useful brand presence measures can enhance managerial confidence in the value of these measures; it can also shed light on aspects worth monitoring, which can be then tailored to the specific strategic needs of a brand or business.

Third, brand managers are increasingly aware of the importance of online shopping and are constantly trialling techniques and measures to succeed in the wide online playfield (Valos et al. 2010). Credible knowledge on measures to evaluate brand performance online is needed, along with specific guidelines on what to measure and how. In this regard, this thesis can save managers' time researching online brand presence measures, thanks to the provision of a comprehensive inventory that also clarified limitations and comparisons of these measures. Moreover, managers planning to operate both online and offline stores can refer to the equivalent measures and optimise tracking of outputs across multiple channels, striving for synergies and efficiencies.

Finally, this thesis findings suggest that most managers rely on external marketing services for evaluating brand presence. Knowing which service companies are commonly relied upon to track brand presence online (e.g., Google Analytics) and offline (e.g., Nielsen) can add confidence to managers planning to invest in the acquisition of such insights to be used for strategic decisions. Arguably, business providing market research services linked to the evaluation of offline and online brand presence can also benefit from this thesis to scope new business opportunities.

5.5 Limitations and future research directions

Despite the multiple contributions to theory and practice that this thesis makes, as with any research, it is not exempt from limitations. Some of these limitations are linked to the chosen focus on the thesis; others are specific to the two individual studies presented, as follows.

The focus of this thesis was on the brand presence element of physical availability. Chapter 1 clarified a series of reasons for this focus; above all, the fact that brand presence is somewhat of a pre-requisite for the other two facets: prominence and portfolio. Hence, it would be valuable to conduct a similar detailed study of the other two components of physical availability to gather a full picture on physical availability in both theory and practice. Due to time constraints and complexity, this thesis was also limited to consumer goods products. Future studies could include services (e.g., banking, insurance or travel). Physical availability in the services sector operates differently to physical goods products, as there is not a physical flow of goods and consumers cannot see or touch services. The types of measures gathered may differ; hence, this thesis work could be extended in the future to explore this field. Ultimately, the insights generated throughout this thesis could also be entirely replicated for the analysis of the other pillar of brand growth: mental availability (Ehrenberg & Bound 1993; Lindsay & Ehrenberg 1993; Romaniuk 2016; Uncles & Wright 2004). These future research directions embody the nature of differentiated replications (Lindsay & Ehrenberg 1993).Future research could also consider which offline and online brand presence measures individually or collectively are deemed most effective, why, and for what purpose. Additionally, in what situations can certain measures be more effective in measuring brand presence.In terms of limitations specific to Study 1, the timeframe considered for the SLR (Study 1) was 1990 to 2021 and excluded any articles that may be in press at the time of the thesis completion. Therefore, this thesis currently can only provide a snapshot of research on physical availability during this timeframe. Due to the constantly developing nature of the topic, an immediate future expansion of this thesis entails updating the SLR for the second half of 2021, capturing latest research outputs, especially for the evaluation of online brand presence. Much to testimony of ever-evolving online physical availability, in 2022 Facebook parent company Meta introduced Metaverse (a virtual reality world) (Seiferth 2021). Although the concept is new and

developing, in the future brands will be able to sell physical products in the Metaverse. The audience will be able to enter a virtual store space and try on and inspect products. Brands such as, Nike, Gucci and Coca Cola are already investing in the Metaverse (Gibson 2022). This further provides an avenue for brands to increase their presence in the online world.
Moreover, the bibliometric analysis extracted key themes and other descriptive information. Although not required for this research, a more extensive knowledge mapping could provide an in-depth picture. For example, using other bibliometric tools like VOSviewer, BibExcel or Citespace to create visual outputs might produce additional or extensive information about the data (Ding & Yang 2020). Finally, multiple databases were not used in Study 1; therefore, future studies could expand the number of databases considered, including Dimensions, Cochrane, PubMed and Google Scholar. Using additional bibliometric databases might have established other related brand presence sources.

In terms of the limitations of Study 2, most of these were linked to the sample size. The selection criteria attained a small sample size (n=51). While small sample sizes are not uncommon for research (Conant & White 1999; Michaelidou et al. 2011; Moore & Fairhurst 2003), future research could entail a larger sample using a different approach. For example, opportunist sampling and snowballing techniques were used to gather participants, aiming to broaden the reach. However, there was a chance for bias and reduced diversity (Biernacki & Waldorf 1981; Goodman 1961). Some respondents were gathered from the Institute's corporate sponsor list, which could have unintentionally skewed the sample towards the managers of popular global brands already conversant in the topic of physical availability. The A larger reach and diverse range of respondents with a broader and random sampling could provide more conclusive results. Furthermore, the survey data was collected over four weeks; hence, future surveys could have a longer time frame or conducted various times in the year to attract more participants. With limited time and resources, best efforts were made to ensure a quick and easy to comprehend survey through a pilot test. However, there is always a chance respondents could misinterpret the questions, randomly click to get through quicker, guess or provide incorrect information, impacting the final results. Future replications and expansions of the same approach used in Study 2 are therefore needed to further corroborate the findings obtained. Finally, the survey also included a screener question testing participants' understanding of brand presence. The very specific criteria may have led respondents to discontinue the survey or

abandoned for their own reasons (e.g., survey length or topic knowledge). Future studies could send information about the topic of interest followed by a questionnaire, so participants understand and are familiar when answering questions.

5.6 Thesis conclusion

This thesis had two research objectives. First, to establish the existing offline and online brand presence measures. Current literature lacks an evidence based systematic research. Therefore, the thesis undertook a systematic literature review by identifying keywords to enter into the databases, screening a broad pool of bibliometric sources and synthesising them to create an inventory of measures. A total of 12 offline presence measures and 21 online presence measures were established.

To narrow the gap between marketing theory and practice surrounding physical availability (presence) measures the second objective identified practitioner's awareness, use and perceived usefulness. This was conducted through a survey targeting marketing managers. The practitioners survey identified seven additional offline and two online brand presence measures to those identified in the systematic literature review. This final compiled inventory for offline and online presence measures aimed to extend knowledge in existing literature. The inventory is important in linking what is known and what is unknown, especially as e-commerce, m-commerce and social commerce continue to experience exceptional growth as domains where online brand presence can grow.

This novel collection of brand presence measures enables managers to refer and select measures from one convenient document to monitor brand performance and growth. For academia, this inventory could inspire to conduct further research into underdeveloped areas of physical availability. This thesis has played a key role in linking the understanding of online and offline physical availability and linked practice to theory.

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Appendices

Appendix A: Participant information sheet

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Participant Information Sheet

PHYSICAL AVAILABILITY (PRESENCE) MEASURES PROJECT
"Measuring offline and online Physical Availability (Presence)"

You are invited to participate in a research study to help understand the usage of physical availability, presence measures across different categories and countries.

What is the study about?

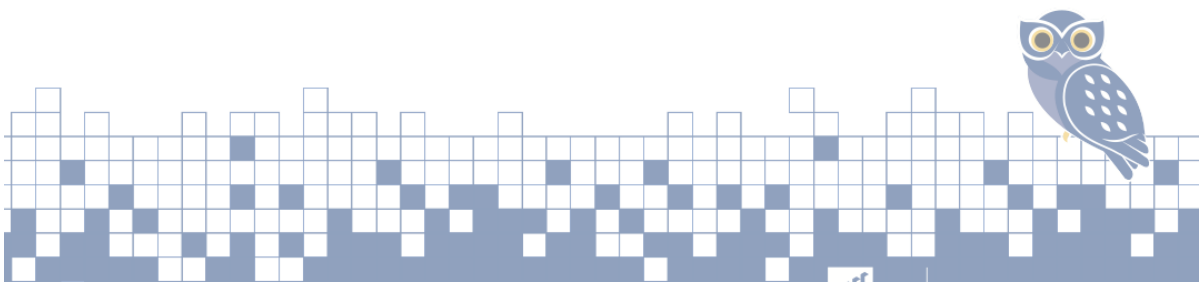
This survey is about your knowledge and experience with physical availability only, specifically relating to usage of presence measures. This research will help us understand how physical availability, presence measures is used across various categories and countries.

Participation and withdrawal

Participation in this study involves answering a 15-20 minute survey determining which presence measures your brand uses and why. Participation in this study is voluntary. We respect your right to decline and there will be no negative consequences should you decide not to participate. You are free to withdraw from the research project at any point while completing the survey, without affecting your position now or in the future. Please note, however, that once you submit your survey, we are unable to remove your response as it will be impossible to identify your individual data.

Will my participation be kept confidential?

Yes. No personal data is collected in this survey. The data obtained will be stored for at least five years in a secured location at the University of South Australia City West Campus. Individuals' responses will be kept confidential by the researcher and will not be identified in the reporting of the research. No information which could lead to the identification of any individual will be released, unless as required by law. However, the researchers cannot guarantee the confidentiality/anonymity of any material transferred by email or the Internet.



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What are the possible risks and benefits of participation?

The benefits include an opportunity to contribute and expand the research on physical availability and presence. Furthermore, the findings of this research will assist your brand in formulating marketing strategies and maximising brand presence. It is not anticipated that there are any risks to participation in this study beyond those encountered during everyday life.

What will happen to the results of the research project?

The results will be published in academic and other similar publications. All results will be non-identifiable to specific individuals or brands.

Can I be provided with a summary of the research findings?

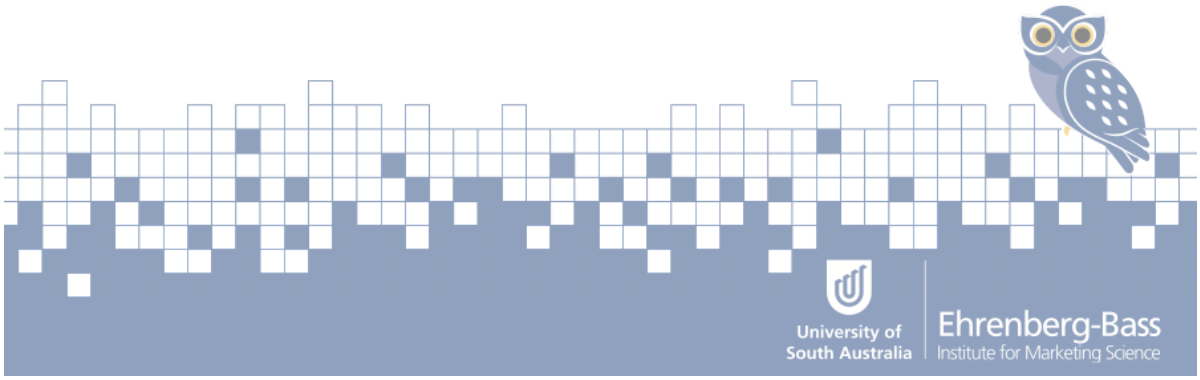
You will be given the opportunity to receive a summary of the collated results. If you are interested, please contact Shreya.Narsey@unisa.edu.au .

By completing and submitting the survey, you will be indicating that you have read and understood this information statement and consent to be involved in the research.

This project has been approved by the University of South Australia's Human Ethics Committee Protocol 042-2021. If you have any ethical concerns about the project or questions about your rights as a participant, please contact BIS-Research@unisa.edu.au or +61 8 83020245.

If you would like to discuss any aspect of this study, please feel free to contact Shreya Narsey via email: Shreya.Narsey@unisa.edu.au. Alternatively, you are free to contact the researcher's supervisor, Dr Zac Anesbury via email: Zac.Anesbury@unisa.edu.au . Thank you for your time and cooperation.

Sincerely,
Shreya Narsey



Appendix B: Practitioner survey

UniSA | Business

Thank you for agreeing to participate in this survey. This survey should take about 15-20 minutes to complete. All responses are kept confidential.

This research is about Physical Availability (Presence) measures for consumer good brands sold offline and online. 'Presence' means ensuring that consumers can find the brand, at the right place and at the right time, i.e., being available to customers in a variety of buying situations and places (e.g., channels, retail outlets and retail formats). We are interested in finding out more about the offline and online presence measures in use for the main brand you manage. There are no right or wrong answers; we just would like to hear your honest opinions.

Please read the Participant information sheet and tick the box below to indicate you have read and agreed to the terms and conditions.

- [ ] I have read and confirm the terms and conditions

Is your brand in a consumer goods category (e.g., household goods, packaged foods, beverages, cosmetics)?
Please select one response.

- Yes
- No
- Prefer not to say

Please specify the category your brand competes in.
Please type in response.

To give a background, **physical availability** is making the brand easy to find and buy. There are three components to physical availability.

This survey is about the first physical availability component '**Presence**' which is, *ensuring that consumers can find the brand, at the right place and at the right time i.e., being available to customers in a variety of buying situations and places (e.g., channels, retail outlets and retail formats)*.

This survey will NOT examine the other two components,

Prominence: the brand being easy to notice and find in all shopping environments, and **Portfolio**: the brand offers something relevant for various buying situations or occasions

We are interested in the main brand you manage.

Before we continue, which of the following statements best represents Presence?

*Please choose **one** of the following that best represents presence.*

- Brand/product is made available to buy in different packaging.
- Brand/product is at eye level on a supermarket shelf.
- Brand/product is displayed on shop shelves and/or available on online stores.

Unfortunately your choice does not match the definition of presence.

As a reminder, presence is defined as, *ensuring that consumers can find the brand, at the right place and at the right time i.e., being available to customers in a variety of buying situations and places (e.g., channels, retail outlets and retail formats).*

To ensure we have consensus of the definition, can you please select which of the following best represents the presence aspect of physical availability.

*Please choose **one** of the following that best represents Presence.*

- Customers can easily find the brand/product in a store.
- Brand/product is available in different packaging sizes.
- Brand/product is available in most places, at most times.

Does the brand you manage have its own physical store and/or available in other physical stores?
Please select one response.

- Yes
- No
- Unsure/Don't know

Do you track and measure the performance of the brand in physical stores (either your own store or in other stores)?
Please select one response.

- Yes
- No
- Unsure/Don't know

Is the brand sold online (e.g., via its own website, a third party websites, mobile app and/or social media shop)?
Please select one response.

- Yes
- No
- Unsure/Don't know

Do you track and measure the performance of the brand when sold online?
Please select one response.

- Yes
- No
- Unsure/Don't know

Over the next few pages, you will be asked a series of questions about which **offline physical availability (presence) measures** you use for your brand.

As a reminder, **offline** refers to in a brick and mortar context.

Please click the arrow to continue.

First we would like to ask you the offline physical availability (presence) measures you are aware of.

Please indicate the **offline physical availability (presence) measures** you can think of.
Please type each measure in a seperate box.

Unsure/ can't recall

Next you will be shown a series of **offline physical availability (presence) measures.** For each measure you will be presented a definition and calculation. You will also be asked questions about the offline presence measures your brand uses. There are no right or wrong answers; we are simply interested in your experiences and opinions.

Please select all the offline presence measures you are aware of.

Presence measure: '**Breadth of distribution**' *or* '**Number of SKUs**' *or* ''**Number of inventory**

Definition & calculation: Number SKUs (stock keeping units) held in a store.

Presence measure: **'Total outlet sales'** or '**Sales per square feet (meters)**'

Definition and calculation:

$$\frac{\text{Total store sales (\$)}}{\text{Selling space (feet or meters)}}$$

Presence measure: '**Product Category Volume (PCV%)**'

Definition: Share of relevant product category sold by the store.

Calculation:

$$\frac{\text{Total category \$ of outlets carrying the brand}}{\text{Total category \$ of all outlets}}$$

Presence measure: '**Share of shelf space**' *or* '**Shelf space allocation**'

Definition and calculation:

$$\frac{\text{Number private label facings}}{\text{Total facings on shelf in a category}}$$

or

$$\frac{\text{Number store brand shelf space (e.g., linear feet or area)}}{\text{Total Number brands on the shelf}}$$

Presence measure: '**Category Performance Ratio**'?

Definition: Relative performance of retailer(s) in a product category vs. performance in all product categories.

Calculation:

$$\frac{\text{PCV (\%)}}{\text{ACV (\%)}}$$

Presence measure: '**Total Distribution Points (TDP)**' or '**Total distribution**'

Definition: Combines breadth of distribution for the brand & depth of distribution for the product line.

Calculation: Sum of ACV or PCV for all SKUs of the brand

Presence measure: '**All Commodity Volume (ACV%)**'

Definition: % total commodity sales in stocking outlets, from total market sales.

Calculation:

$$\frac{\text{Total \$ of a store carrying the brand}}{\text{Total \$ of all stores}}$$

Presence measure: '**Numerical Distribution**' or '**Physical Distribution**'

Definition: % stores or outlets stocking the brand's product, within the universe of stores in relevant market.

Calculation:

$$\frac{\text{Number outlets carrying the product}}{\text{Number outlets in the market}}$$

Presence measure: **'Distance'** *or* ''**Distance between competing stores'**?

Definition and calculation:
Distance between shopper's home & retailers closest store.
or
Geographic distance between pairs of stores.

Presence measure: '**Out of Stocks (OOS)%'** *or* '**Duration of OOS'** *or* '**Shelf stock-outs'**?

Definition: An item in-store with authorised distribution but unavailable for consumers on the fixed shelf *or* the length of time the product / brand is not on the shelf.

Calculation:
Time period a product is temporarily unavailable on shelf (e.g., days, weeks, months)
or

$$\frac{\text{Number outlets brand/ product is listed but unavailable}}{\text{Number total outlets where brand /product is listed}}$$

Presence measure: **'Store traffic'** *or* **'Foot traffic'**?

Definition & calculation: Number customers entering a store in a certain period (e.g., days, weeks, months, or years).

or

$$\frac{\text{Foot traffic of a store carrying the brand}}{\text{Foot traffic of all stores carrying the brand}}$$

Presence measure: '**Store sales volume'**

Definition and calculation: Total number of units sold in a certain time.

Don't know any

Please select the offline presence measures you currently use to manage your brand.

- Store sales volume
- All Commodity Value (ACV)
- Store traffic / Foot traffic
- Distance / Distance between competing stores
- Store brand shelf space / Share of shelf / Shelf space allocation
- Category performance ratio
- Total outlet sales/ Sales per square feet (meters)
- Numerical distribution
- Breadth of distribution / Number of SKUs/ Number of inventory
- Out of Stocks (OOS)% / Duration of OOS / Self stockouts
- Total Distribution/ Points (TDP)
- Product Category Volume (PCV)
- Unsure/ Don't know

Approximately, how frequently do you monitor these measures?

	Daily	Weekly	Fortnightly	Monthly	Quarterly	Half yearly	Yearly	I don't monitor this measure
Store sales volume	○	○	○	○	○	○	○	○
All Commodity Value (ACV)	○	○	○	○	○	○	○	○
Store traffic / Foot traffic	○	○	○	○	○	○	○	○
Distance / Distance between competing stores	○	○	○	○	○	○	○	○
Store brand shelf space / Share of shelf / Shelf space allocation	○	○	○	○	○	○	○	○
Category performance ratio	○	○	○	○	○	○	○	○
Total outlet sales/ Sales per square feet (meters)	○	○	○	○	○	○	○	○
Numerical distribution	○	○	○	○	○	○	○	○
Breadth of distribution / Number of SKUs/ Number of inventory	○	○	○	○	○	○	○	○

Please indicate if you rely on an external market research provider (e.g., Nielsen or Kantar) for any of these measures below.

- None of these
- Store sales volume
- All Commodity Value (ACV)
- Store traffic / Foot traffic
- Distance / Distance between competing stores
- Store brand shelf space / Share of shelf / Shelf space allocation
- Category performance ratio
- Total outlet sales/ Sales per square feet (meters)
- Numerical distribution
- Breadth of distribution / Number of SKUs/ Number of inventory
- Out of Stocks (OOS)% / Duration of OOS / Self stockouts
- Total Distribution/ Points (TDP)
- Product Category Volume (PCV)

Please specify which market research provider you purchase these measures from.

	Nielsen	IRI	Kantar	GfK	Ipsos	Other (please specify)	Unsure/ don't know
Store sales volume	○	○	○	○	○		○
All Commodity Value (ACV)	○	○	○	○	○		○
Store traffic / Foot traffic	○	○	○	○	○		○
Distance / Distance between competing stores	○	○	○	○	○		○
Store brand shelf space / Share of shelf / Shelf space allocation	○	○	○	○	○		○
Category performance ratio	○	○	○	○	○		○
Total outlet sales/ Sales per square feet (meters)	○	○	○	○	○		○
Numerical distribution	○	○	○	○	○		○
Breadth of distribution / Number of SKUs/ Number of inventory	○	○	○	○	○		○
Out of Stocks (OOS)% / Duration of OOS / Self stockouts	○	○	○	○	○		○
Total Distribution/ Points (TDP)	○	○	○	○	○		○
Product Category Volume (PCV)	○	○	○	○	○		○

On a scale 0 to 10, with 0 being extremely unhelpful and 10 being extremely helpful, how helpful do you find these measures in evaluating your brand's presence?

	Extremely unhelpful 0	1	2	3	4	5	6	7	8	9	Extremely helpful 10	Unsure/ don't know
Store sales volume	○	○	○	○	○	○	○	○	○	○	○	○
All Commodity Value (ACV)	○	○	○	○	○	○	○	○	○	○	○	○
Store traffic / Foot traffic	○	○	○	○	○	○	○	○	○	○	○	○
Distance / Distance between competing stores	○	○	○	○	○	○	○	○	○	○	○	○

Do you use any other offline physical availability (presence) measures not mentioned above so far?
Please indicate the measure, why do you track the measure, and how frequently you monitor the measure.
Please type each measure in a separate box.

Over the next few pages, you will be asked a series of questions about which **online physical availability (presence) measures** your brand uses. This may be selling your brand via your own brand online store or a third party channel.

As a reminder, **online** refers to electronic-commerce (selling over the internet), mobile-commerce (mobile shopping and apps) and social commerce (social media shopping) context.

Please click the arrow to continue

←

→

First we would like to ask you the online physical availability (presence) measures you are aware of.

Please indicate the **online** (e-commerce, m-commerce and social commerce) **physical availability (presence)** measures you can think of.
Please type each measure in a seperate box.

Unsure/ can't recall

Next you will be shown a series of **online physical availability (presence) measures.** For each measure you will be presented a definition and calculation. You will also be asked questions about the online presence measures your brand uses. There are no right or wrong answers; we are simply interested in your experiences and opinions.

Please select all the online presence measures you are aware of.

Presence measure: '**Search Engine Results Page (SERP)**'

Definition and calculation: Brand's position on a search engine (e.g., Google, Bing, Yahoo)
or
Brand's website positioning on the first search engine results page.

Presence measure: **Product Category Search Volume (PCSV)**?

Definition and calculation: Number of product searches on search engines or websites.

Presence measure: '**Social media page reach**'

Definition and calculation: Total number of unique accounts viewing the brand's social media content. Applicable for any social media platform (e.g., Facebook, Instagram or YouTube).

Presence measure: **Gross Merchandise Value (GMV)**

Definition and calculation: Total value of sales transacted by 3rd party websites (e.g., eBay & Amazon).

Presence measure: '**Website visits**' *or* '**Website visitors**'

Definition and calculation: Number of times visitors arrive to a website
or
the number of unique website visitors over time.
Can be for own brand website or third party website.

Presence measure: **Number of active app users**

Definition: Number times a mobile app has been used or opened.

Calculation: Number of daily, monthly, &/or yearly active users.

Presence measure: **Benchmark Product Price Difference (BPPD) %**

Definition and calculation: A product's average product price - Associated benchmark product price.

Presence measure: **Share of search**

Definition: Share of a brand's search on search engines compared to market's total brand search volume.

Calculation:

$$\frac{\text{Number of brand searches}}{\text{Total searches for all brands in category}}$$

Presence measure: '**Social media share of voice**'

Definition: Discussion of brand on social media (e.g., Facebook, Instagram or YouTube), compared to competitors.

Calculation: Number times the brand is tagged, mentioned, or used as a hashtag in a social media post.

Presence measure: **'Website page views'** or **'Page impressions'**

Defintion: Number times a page is displayed to viewers or users.

Calculation: Number times a website page is viewed over time.

Presence measure: '**Social media impressions**'

Definition and calculation: Number times a brand's content was displayed on someone's social media feed.

Presence measure: '**Website conversion**' or '**Conversion rate %**'

Defintion: Taking the desired action on the website (e.g., clicking on website, making a purchase, or signing up to the newsletter).

Calculation:

$$\frac{\text{Number conversions}}{\text{total unique visitors}}$$

or

$$\frac{\text{Number users purchasing a product}}{\text{Total unique website visitors}}$$

Presence measure: '**Mobile share of search**'

Definition: Share of a brand's search on search engines compared to market's total brand search volume on a mobile device.

Calculation:

$$\frac{\text{Number of brand searches}}{\text{Total searches for all brands in category}}$$

Presence measure: **Number of mobile app downloads** or **Mobile app installations**?

Definition and calculation: Number of mobile app downloads from the Apple App Store or Google Play store.

Presence measure: '**Social media brand engagement** or **insights**'

Definition: Audience's involvement with brand's social media content.

Calculation:
Engagement: e.g., number likes, reactions, comments, shares, views, reach & impressions.
Insights: e.g., number clicks, click throughs, sales, video revenue, sales & actions on the page.

Presence measure: **Mobile app ranking**

Definition and calculation: The brand's mobile app ranking in app store based on keywords (e.g., app name, app title or product description).

Presence measure: **'Mobile Product Category Search Volume' (mobile PCSV)**

Definition and calculation: Number of product searches on search engines or websites on a mobile device.

Presence measure: **'Average revenue per mobile app user'**

Definition and calculation: Total revenue generated vs. number of active mobile app users.

Presence measure: '**Mobile website visits**' or '**Mobile website visitors**'

Definition and calculation: Number times visitors arrive to a website or number unique website visitors over time on a mobile device.

Presence measure: **'Mobile Search Engine Results Page' (mobile SERP)**

Definition and calculation: Brand's position on a search engine (e.g., Google, Bing, Yahoo) via a mobile device
or
Brand's website positioning on the first search engine results page via a mobile device.

Don't know any

Please indicate if you use any of these online presence measures below to manage your brand's own (e.g., branded website) or third party (e.g., retailer websites or online marketplaces) channels.

	Own brand	Third party
Website conversion /Conversion rate %	☐	☐
Benchmark Product Price Difference (BPPD) %	☐	☐
Mobile share of search	☐	☐
Website page views / Page impressions	☐	☐
Social media brand engagement / insights	☐	☐
Gross Merchandise Value (GMV)	☐	☐
Website visits / Website visitors	☐	☐
Search Engine Results Page (SERP)	☐	☐
Share of voice on social media	☐	☐
Mobile Product Category Search Volume (mobile PCSV)	☐	☐
Number of app downloads / App installations	☐	☐
Social media brand page reach	☐	☐
Mobile search engine results page (mobile SERP)	☐	☐
Product Category Search Volume (PCSV)	☐	☐
Mobile website visits / visitors	☐	☐

Approximately, how frequently do you monitor these measures on your brand's own channels?

	Daily	Weekly	Fortnightly	Monthly	Quarterly	Half yearly	Yearly	I don't monitor this measure
ion /Conversion rate	○	○	○	○	○	○	○	○
duct Price Difference	○	○	○	○	○	○	○	○
search	○	○	○	○	○	○	○	○
ews / Page	○	○	○	○	○	○	○	●
and engagement /	○	○	○	○	○	○	○	○
lise Value (GMV)	○	○	○	○	○	○	○	○
Website visitors	○	○	○	○	○	○	○	○
lesults Page (SERP)	○	○	○	○	○	○	○	○

Approximately, how frequently do you monitor these measures on third party channels?

	Daily	Weekly	Fortnightly	Monthly	Quarterly	Half yearly	Yearly	I don't monitor this measure
sion /Conversion rate	○	○	○	○	○	○	○	○
duct Price Difference	○	○	○	○	○	○	○	○
search	○	○	○	○	○	○	○	○
ews / Page	○	○	○	○	○	○	○	○
and engagement /	○	○	○	○	○	○	○	○
dise Value (GMV)	○	○	○	○	○	○	○	○
Website visitors	○	○	○	○	○	○	○	○
Results Page (SERP)	○	○	○	○	○	○	○	○

Please indicate if you rely on an online analysis tool (e.g., Google Analytics or Hootsuite) for any these measures below.

- Unsure/ None of these
- Website page views / Page impressions
- Website visits / Website visitors
- Website conversion /Conversion rate %
- Search Engine Results Page (SERP)
- Benchmark Product Price Difference (BPPD) %
- Gross Merchandise Value (GMV)
- Mobile share of search
- Social media brand engagement / insights

Please specify which online tool you use for these measures.

	Google Analytics	Hootsuite	SimilarWeb	Other (please specify)	Unsure/ don't know
Website page views / Page impressions	☐	☐	☐		○
Website visits / Website visitors	☐	☐	☐		○
Website conversion /Conversion rate %	☐	☐	☐		○
Search Engine Results Page (SERP)	☐	☐	☐		○
Benchmark Product Price Difference (BPPD) %	☐	☐	☐		○
Mobile share of search	☐	☐	☐		○
Social media brand engagement / insights	☐	☐	☐		○

Please indicate if you rely on in-built analytics (i.e., analytics from internal website, social media platform or mobile app) for any of these measures.

- Website page views / Page impressions
- Website visits / Website visitors
- Website conversion /Conversion rate %
- Search Engine Results Page (SERP)
- Benchmark Product Price Difference (BPPD) %
- Gross Merchandise Value (GMV)
- Mobile share of search
- Social media brand engagement / insights
- Unsure/ none of these

On a scale 0 to 10, with 0 being extremely unhelpful and 10 being extremely helpful, how helpful do you find these measures in evaluating your brand's presence?

	Extremely unhelpful 0	1	2	3	4	5	6	7	8	9	Extremely helpful 10	Unsure/ don't know
Website page views / Page impressions	○	○	○	○	○	○	○	○	○	○	○	○
Website visits / Website visitors	○	○	○	○	○	○	○	○	○	○	○	○
Website conversion /Conversion rate %	○	○	○	○	○	○	○	○	○	○	○	○
Search Engine Results Page (SERP)	○	○	○	○	○	○	○	○	○	○	○	○
Benchmark Product Price Difference (BPPD) %	○	○	○	○	○	○	○	○	○	○	○	○
Gross Merchandise Value (GMV)	○	○	○	○	○	○	○	○	○	○	○	○
Mobile share of search	○	○	○	○	○	○	○	○	○	○	○	○
Social media brand engagement / insights	○	○	○	○	○	○	○	○	○	○	○	○

Do you use any other online physical availability (presence) measures not mentioned above so far?
Please indicate the measure, why do you track the measure, and how frequently you monitor the measure.
Please type each measure in a separate box.

We are almost at the end of the survey. All your answers will remain anonymous and confidential. The following questions are about yourself and are for classification purposes only.

→

Please specify the country/countries you manage your brand in?
Please select all that apply.

Country 1

Country 2

Country 3

Please state your main role/ job title at the company?
Please select a response.

- Brand manager
- Marketing manager
- Retail manager
- Brand insights
- Other (please specify)
- Prefer not to say

How long have you been working professionally in this industry?
Please select one response.

- Less than 1 year
- 1-5 years
- 6-10 years
- More than 10 years
- Prefer not to say

Approximately, what is your company's annual sales revenue for the country you are working in? Figures are in $USD
Please select one response.

- Less than $100K
- $100K – $499K
- $500K – $999K
- $1M – $9M
- $10M – $49M
- $50M – $199M
- $200M – $499M
- $500M – $999M
- $1B - $9B
- $10B - $49B
- $50B or more
- Unsure/don't know
- Prefer not to say

Approximately, what is your brand's market share?
Please select one response.

- 0%-19%
- 20%- 39%
- 40%-59%
- 60% or more
- Unsure/don't know
- Prefer not to say

How many employees are working at the current organization?
Please select one response.

- 1 - 5000
- 5000 - 20,000
- 21,000 – 75,000
- 76,000 – 120,000
- 121,000 or more
- Unsure/don't know
- Prefer not to say

Appendix C: Offline and online presence measures evidence and conceptual research

Table 26: Summary of offline brand presence empirical evidence

Author(s)	Country	Category	Brands (#)	Stores (#)	Period
Product category volume (PCV) % (n=4)					
Borin et al. (1991)	JPN	Shampoo	26	N/A	N/A
Friberg and Sanctuary (2017)	SWE	Alcohol beverages	N/A	N/A	2006-2011
Guissoni et al. (2020)	BRA	Soft drinks	195	N/A	2010-2013
Verbeke et al. (1994)	NLD	Detergent	N/A	N/A	N/A
All commodity volume (ACV) % (n=2)					
Krider et al. (2008)	N/A	RTD iced tea	4	N/A	1991-1996
Wilbur and Farris (2014)	N/A	Consumer goods (37)	9,035	N/A	2003-2005
Out of stocks (n=2)					
Aastrup and Kotzab (2009)	DNK	Consumer goods	12	42	N/A
Eroglu et al. (2011)	N/A	RTE cereals	N/A	N/A	N/A
Store sales volume (n=2)					
Etgar and Rachman-Moore (2010)	Global – Europe, USA, Asia, AUS, NZ, Africa	N/A	250	N/A	2005
Perdikaki et al. (2012)	USA	Retail	1	N/A	2007
Store shelf space (n=2)					
Chiang and Wilcox (1997)	N/A	Groceries	231	N/A	1990
Gomez and Rubio (2008)	ESP	Groceries	11	N/A	2007
Distance (n=2)					
Briesch et al. (2009)	USA	Consumer goods (n=10)	N/A	N/A	1995-1997
Hwang et al. (2010)	USA	Consumer goods (n=4)	N/A	3040	2005

Numerical distribution % (n=1)					
Guissoni et al. (2020)	BRA	Soft drinks	195	N/A	2010-2013
Breadth of distribution (n=1)					
Borin et al. (1991)	JPN	Shampoo	26	N/A	N/A

Table 27: Summary of offline brand presence conceptual research

Author(s)	
Product category volume (PCV) % (n=7)	**Total distribution points (TDP) % (n=3)**
Ailawadi and Farris (2017)	Ailawadi and Farris (2017)
Ailawadi and Farris (2020)	Farris et al. (2006)
Farris et al. (2006)	Farris et al. (2016)
Farris et al. (2016)	
Kucuk (2008)	**Store or foot traffic (n=3)**
Umit Kucuk (2011)	Ailawadi and Farris (2017)
Reibstein and Farris (1995)	Ailawadi and Farris (2020)
	Umit Kucuk (2011)
All commodity volume (ACV) % (n=6)	
Ailawadi and Farris (2017)	**Out of stocks (n=3)**
Ailawadi and Farris (2020)	Farris et al. (2006)
Farris et al. (2006)	Farris et al. (2016)
Farris et al. (2016)	Kucuk (2008)
Reibstein and Farris (1995)	
Kucuk (2008)	**Category performance ratio (n=2)**
	Farris et al. (2006)
Store shelf space (n=5)	Farris et al. (2016)
Farris et al. (2006)	
Farris et al. (2016)	**Breadth of distribution (n=1)**
Hübner and Schaal (2017)	Farris et al. (2006)
Umit Kucuk (2011)	
Urban (1998)	**Total outlet sales (n=1)**
	Farris et al. (2006)
Numerical distribution % (n=4)	
Ailawadi and Farris (2017)	
Farris et al. (2006)	
Farris et al. (2016)	
Reibstein and Farris (1995)	

Table 28: Summary of online brand presence empirical evidence

Author(s)	Country	Category	Brands (#)	Period
Website conversion/ conversion rate % (n=1)				
McDowell et al. (2016)	N/A	Electronics, health care, apparel, toys, games, books, movies, flowers, music, computing, and general merchandise	114 firms	N/A
Search of search (n=1)				
Swift (2020)*	N/A	Automotive, gas and electric energy and mobile phone headphones	N/A	2004 onwards

*online article

Table 29: Summary of online presence conceptual research

Author(s)	
Social media engagements/ insights (n=3)	**Product category search volume (PCSV) (n=1)**
York (2020)*	Ailawadi and Farris (2017)
Chen (2021)*	
Peters et al. (2013)	**Share of search (n=1)**
	Swift (2020)*
Website page views (or page impressions) (n=2)	
Farris et al. (2006)	**Benchmark product price difference (BPPD) (n=1)**
Farris et al. (2016)	Hayes (2019)*
App revenue per user (n=2)	
Mor-Samuels (2021)	**Gross merchandise value (GMV) (n=1)**
Manifest (2018)*	
	Ailawadi and Farris (2017)
Social media impressions (n=2)	
York (2020)*	**App downloads/ installations (n=1)**
Peters et al. (2013)	App Radar (2021)*
Social media share of voice (n=2)	**App ranking (n=1)**
Jackson (2020)*	App Radar (2021)*
Sehl (2020)*	
	Active app users (n=1)
Page visits and visitors (n=1)	Schneider (2020)*
Farris et al. (2016)	
	Social media page reach (n=1)
Search engine results page (n=1)	York (2020)*
Ailawadi and Farris (2017)	

**online article*