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ABSTRACT

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Abstract

Over the last two decades, digital analytics has evolved from simply monitoring clicks to ever more complex campaign analyses and evaluations of marketing communication performance. However, the rapid rate of technological development has overshadowed the strategic importance of digital analytics for marketing practitioners and researchers alike. This has led to a situation, where the technical execution of digital analytics has become known relatively well but its practical benefits and purposes have been left without much attention. This research aims to breach this research gap by answering the question: *how can companies integrate digital analytics in their strategic marketing decision making*.

This is a qualitative single case study, the focus of which is the company Unilever. The empirical data comprises eight semi-structured interviews as well as two digital analytics reports supplied by the case company. Literature on the absorptive capacity theory and strategic marketing decision making was used as a basis for the analysis of the data. The research findings suggest that it is possible to use digital analytics to generate strategically relevant knowledge on actual customer behaviour, wants and interests. The findings also indicate that digital analytics as a concept is broad and consists of several analytics subclasses, each with their distinctive characteristics and purposes. Furthermore, the findings highlight the challenges and obstacles that companies face in their attempts to integrate digital analytics in their strategic decision making processes.

The main theoretical contribution of this study is to illuminate the strategic relevance of digital analytics. Digital analytics should not be viewed simply as a tool to monitor on-going marketing campaigns; in the right hands, it can generate valuable insights to support strategic marketing decision making. Another significant contribution is the conceptualisation of digital marketing knowledge. This research presents strong evidence to support the statement that the knowledge generated through digital analytics is fundamentally different from that of conventional consumer and market research. Companies can therefore use digital analytics to generate new insights on their customers, competitors and markets. In order to unleash this potential, companies must strive towards a flexible organisational structure and processes, offer purposeful employee training and support, develop a functional data management platform and be strategically committed towards developing their digital analytics capacity. Finally, this study provides research avenues for future research on the utility of digital analytics as a decision support tool. Further longitudinal analysis or a multiple case study on this research topic would work toward confirming, refuting or supplementing the results of this study.

Key words	Digital marketing, knowledge management, Web 2.0, social media
Further information	

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Tiivistelmä

Digianalytiikka on kehittynyt viimeisen kahden vuosikymmenen aikana yksinkertaisesta klikkien seurannasta yhä kompleksisempiin kampanja-analyyseihin ja markkinointiviestinnän vaikuttavuuden mittaamiseen. Nopea teknologinen kehitys on kuitenkin jättänyt varjoonsa digianalytiikan strategisen merkityksen niin markkinoinnin ammattilaisten kuin tutkijoiden keskuudessa. Tämä on johtanut tilanteeseen, jossa digianalytiikan tekninen toteutus tunnetaan verrattain hyvin, mutta sen käytännön hyödyt ja käyttötarkoitukset ovat jääneet vähäiselle huomiolle. Tämä tutkielma kuroo kiinni tätä tutkimusaukkoa vastaamalla kysymykseen: *miten yritykset voivat integroida digianalytiikan strategiseen markkinoinnin päätöksentekoon*.

Kyseessä on kvalitatiivinen yksittäistapaustutkimus, jonka kohdeyritys on Unilever. Tutkimuksen empiirinen aineisto koostuu kahdeksasta puolistrukturoidusta haastattelusta sekä kahdesta kohdeyritykseltä saadusta digianalytiikkaraportista. Tulosten analyysin perustana on käytetty absorptiivisen kapasiteetin teoriaa sekä aikaisempaa tutkimustietoa markkinoinnin strategisesta päätöksenteosta. Tutkimuksen tulokset viittaavat siihen, että digianalytiikan avulla on mahdollista tuottaa strategisesti relevanttia tietoa asiakkaiden todellisesta käytöksestä, haluista ja kiinnostuksen kohteista. Tulokset myös osoittavat, että digianalytiikka käsitteenä on laaja ja pitää sisällään useita eri alaluokkia, joista jokaisella on omat ominaispiirteensä ja tarkoituksensa. Lisäksi tulokset valottavat niitä haasteita ja hidasteita, joita yritykset kohtaavat pyrkiessään integroimaan digianalytiikkaa tiiviimmin osaksi markkinoinnin strategisia päätöksentekoprosesseja.

Tämän tutkimuksen keskeinen teoreettinen kontribuutio on digianalytiikan strategisen merkityksen osoittaminen. Digianalytiikkaa ei tulisi nähdä pelkkänä markkinointikampanjan seurantatyökaluna; oikeissa käsissä se voi tuottaa kallisarvoisia oivalluksia strategisen markkinoinnin päätöksenteon tueksi. Toinen merkittävä kontribuutio on digitaalisen markkinointitiedon käsitteellistäminen. Tämä tutkimus tarjoaa vahvan perusteen väittämälle, että digianalytiikan kautta saatu tieto on pohjimmiltaan eriluontoista konventionaaliseen kuluttaja- ja markkinatutkimukseen verrattuna. Digianalytiikan avulla voidaan siis tuottaa uudenlaista tietämystä yrityksen asiakkaista, kilpailijoista ja markkinoista. Tämän potentiaalin hyödyntämiseksi yritysten on panostettava organisatoristen rakenteiden ja prosessien joustavuuteen, tarkoituksenmukaiseen henkilöstön koulutukseen, toimivan datahallintatyökalun kehittämiseen sekä digianalytiikan kehittämisen sitomiseen osaksi yrityksen strategiaa. Tutkimus tarjoaa lisäksi jatkotutkimusmahdollisuuksia digianalytiikan hyödyntämisestä päätöksenteon tukena. Tuleva, tätä aihetta käsittelevä pitkittäistutkimus tai monitapaustutkimus voisi tukea, haastaa tai täydentää tämän tutkimuksen löydöksiä.

Asiasanat	Digitaalinen markkinointi, tietoperustainen johtaminen, Web 2.0, sosiaalinen media
Muita tietoja	

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INTEGRATING DIGITAL ANALYTICS IN STRATEGIC MARKETING DECISION MAKING

An absorptive capacity approach

Master´s Thesis
in Marketing

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1 INTRODUCTION

Advanced digital analytics tools continue to be introduced in response to companies' growing demand for digital marketing insights. Digital analytics has evolved as practice from counting clicks and monitoring traffic into evaluating user experience and identifying trends in customer behaviour. Unsurprisingly, as digital analytics tools continue to become more sophisticated and complex, companies and researchers struggle to keep pace. (Day 2011, 183–184.) Telling is the fact that the amount of academic research into digital analytics is far greater in the field of computer science than that of marketing (Bucklin & Sismeiro 2009, 45). Digital analytics has perhaps become overly technicalised, with researchers and managers alike trying to grasp the basic mechanics of digital analytics all the while its strategic implications remain largely undiscovered (Quinton & Simkin 2016, 5–6).

A silo mentality has emerged, where digital analytics has become isolated to the tactical level, losing its connection to the overarching marketing strategy, not to mention other key business functions (Augier & Teece 2006, 407). This silo mentality is not a new phenomenon in marketing; in fact, it has been observed well before the birth of the Internet. Researchers have long discussed the difficulties in linking marketing analytics from different sources together with business intelligence (BI) that managers employ in strategic decision making (Dickson 1972, 28; Rust & Leone 1984, 89–90; Sundar, Narayan, Obregon & Uppal 1998, 822–825). This disconnection between different forms of marketing analytics and company strategy persists to this day, evidenced by insufficient strategic guidance, resourcing and information flow (Assael 2011, 42–45). It is no wonder then that academic research into digital analytics lacks a strategic perspective. This research paper aims to breach this gap by investigating *how companies can integrate digital analytics in their strategic marketing decision making*.

1.1 Research focus

There have been few attempts at examining digital analytics through fundamental strategic marketing concepts. Campbell, Ferraro and Sands (2014, 447) found emerging behaviour patterns that divide consumers into segments based on their motives, interests and level of engagement in social network communication. They conclude their analysis by stating that combining online marketing analytics with conventional market research "would allow firms to pre-emptively identify those consumers most likely to respond to and spread social media marketing". Bickart and Schindler (2001, 36–39) discussed the benefits of extracting information on consumer behaviour and preferences from Internet forums. They state that online discussions serve both as a powerful medium for marketing

communication and as a source of marketing data for companies. While these studies manage to highlight the potential benefits of utilising digital analytics, they fail to offer an understanding of how companies can actually integrate digital analytics in their strategic marketing decision-making processes so that these benefits can be realised.

Day (2011, 183) notes that the rapid rate of technological development has caused an over-emphasis on the acquisition of knowledge as opposed to how this new knowledge can be put to use. This is counter-intuitive given that the very purpose of digital analytics is to serve an organisation's marketing strategy by generating accurate and useful marketing knowledge to support decision making. Clearly, an investigation is needed that encompasses both the generation and use of knowledge in relation to digital analytics. The absorptive capacity theory is used in this study to link digital analytics into the whole process of integrating marketing knowledge. A previous study by Atanassova and Clark (2015, 168–171) employed an absorptive capacity approach to analyse how SMEs can benefit from marketing insights drawn from social media use. They found that SMEs see social media use as a cost efficient way of gaining market intelligence. This research paper continues this discussion by broadening the scope to encompass digital analytics drawn from multiple channels (i.e. not limited to online social media), and by applying the absorptive capacity framework to a strategic decision-making context.

1.2 Research aims and objectives

The purpose of this research paper is *to investigate how companies can integrate digital analytics in their strategic marketing decision making*. If digital analytics is to offer uses beyond the medium through which its data has been gathered, it is important to determine the breadth and scope of these potential uses. Furthermore, it must be ascertained if and how digital analytics is compatible with the ways companies manage their marketing knowledge in general. In doing so, this research aims to uncover not only the possible benefits but also the prerequisites for the strategic integration of digital analytics. The following research questions are outlined to fully cover the stated research purpose:

- What kind of knowledge does digital analytics add to strategic marketing decision making?
- How can companies use digital analytics to generate marketing knowledge?
- How can companies use digital marketing knowledge in strategic marketing decision making?

The first research question addresses what kind of knowledge digital analytics generates and how it differs from conventional marketing knowledge available through other means, such as customer or market research. Prior theory is first used to establish what

kind of knowledge is used in strategic marketing decisions in general; the knowledge generated through digital analytics is then examined in relation to this framework. By so doing, this study is able to uncover the possibilities as well as the limitations of digital analytics as a method for generating knowledge to support strategic marketing decision making. The second research question pertains to the process of knowledge generation through digital analytics. In terms of the absorptive capacity framework used in this study, this question covers the acquisition and assimilation of knowledge, both of which are integral parts of generating new knowledge for the company to use. The third research question connects the knowledge generated through digital analytics, i.e. digital marketing knowledge, to its use in practice. This question covers the knowledge transformation and exploitation components of the absorptive capacity theory.

The empirical evidence for this study was gathered through a qualitative single case study. The focal company of this case study is Unilever. A qualitative approach allows for a highly explorative analysis of the research topic. Through qualitative analysis, this research can be carried free of causal hypotheses or pre-conceptions (Golafshani 2003, 598–600), enhancing the capacity of this study to form a holistic understanding of the interdependencies and possible outcomes of integrating digital analytics in strategic marketing decision making. Single case study as the chosen research strategy was both practical and purposeful, as the researcher had unique access to the case company and thus was able to gain a sufficiently large number of expert interviews to cover the research topic.

A further point of consideration is the expected outcomes and the contributions of this study. This study will no doubt yield useful insights into the significance and value of digital analytics for strategic marketing decision making. Through an in-depth analysis on the mechanisms that drive and impede digital analytics integration within the case company, this study is likely to provide clues as to how companies can facilitate this integration in general. In terms of theoretical contributions, this study takes the absorptive capacity approach used by Atanassova and Clark (2015, 168–171) but applies it in a strategic marketing decision-making context. In so doing, this study is set to raise important questions into the strengths and limitations of using the absorptive capacity theory in this context.

1.3 Research outline

Chapter 2 covers the literature review, which serves as a point of reference against which the empirical findings of this study are compared. The three first subsections pertain to the three research questions, respectively. The first subsection consists of prior literature

on conventional knowledge used in strategic marketing decision making. The second subsection comprises the first two components of the absorptive capacity theory in relation to digital analytics. Conversely, the third subsection covers the latter two components: knowledge transformation and exploitation. The fourth subsection draws together the theoretical concepts covered in the chapter to form an analytical framework, which was instrumental in the collection and analysis of the empirical data.

In chapter 3, the methodological choices of this research are elaborated on. The first subsection of this chapter concerns the chosen research approach and method of reasoning. The second subsection provides explanations as to why a cross-sectional single case study was selected as the research strategy. This subsection also includes the operationalisation table of this study, which comprises the research purpose, research questions, key concepts, interview themes and example questions used as a basis for the research design. The third subsection gives a brief description of the case company so as to illuminate the context in which empirical data was gathered and against which it was analysed. The fourth subsection covers the methods used to collect and analyse the empirical data for this study. Issues pertaining to the reliability and validity of this study, as well as methods to overcome them are described in the fifth subsection of the methodology chapter.

Chapter 4 comprises of analysis based on the empirical data in itself. This inductive approach to data analysis was deemed appropriate considering the relatively sparsely researched nature of the research topic. This chapter is divided into three broad themes that arose from the interview data. The chapter is structured in a way that these themes correspond to the three research questions in the same order. In chapter 5, the key empirical findings are combined and compared with prior theory. This chapter is divided into three subsections corresponding to the three research questions. These subsections also feature tables and figures that draw together key empirical findings in relation to the theoretical framework used in this study.

The main theoretical contributions and managerial implications of this research are highlighted in chapter 6. This chapter also includes an evaluation of the study in terms of its limitations and possibilities for future research. Finally, chapter 7 contains a two-page summary of this research paper.

2 DIGITAL ANALYTICS IN STRATEGIC MARKETING DECISION MAKING

In order to broach the subject of *how companies can integrate digital analytics in strategic marketing decision making*, one must first define strategic decision making, problematic as it may be. While there is notable dissensus as to the definition of strategy as a concept, most researchers agree that strategic decisions involve determining the firm's relation to its environment, setting long-term goals and selecting the actions to meet these goals (Ronda-Pupo & Guerras-Martin 2012, 182–183). Marketing differs from other areas of strategic decision making in that it incorporates external, market-based knowledge to guide internal activities (Chandy 2003, 251–254). Examples of strategic decisions in marketing include segmentation, targeting and positioning; all of which have far-reaching implications that affect day-to-day business activities over a long time frame (Conway & Whitelock 2007, 200).

Extant marketing research typically contrasts strategy with two other levels of decision making: tactical and operational. These three levels are loosely separated by dimensions such as the time frame, scope and relative importance of the decision. (Johnson, Lee & Saini 2003, 74–75.) However, even a cursory examination reveals that this is but an oversimplification, as business decisions tend to fall under several or even all three levels of decision making simultaneously. Furthermore, according to Hayes and Upton (1998, 8–10), strategy is seldom left to the domain of top-management. More often, strategic decisions that survive their implementation are the synthesis of strategic, tactical and operational decisions. This conceptual ambiguity is a mixed blessing, since it allows researchers the freedom to attribute strategy to different decision-making contexts to imbue them with an air of importance as needed (Nag, Hambrick & Chen 2007, 952). For the purposes of this research, strategic decisions are defined as decisions that reach far beyond the decision-making unit of origin, and have wide-ranging implications for the whole company's performance.

2.1 Conventional marketing knowledge

This study seeks in part to determine what the knowledge gained through of digital analytics is and how this knowledge can be applied to practice. This section provides the theoretical framework to answer research question 1: how digital marketing knowledge relates to conventional marketing knowledge. In order to determine the similarities and differences between conventional and digital marketing knowledge, a comprehensive theoretical framework must first be established outlining the multitude of different kinds of knowledge that marketers use in decision making. In essence, this section functions as a

point of reference to which the new concept of digital marketing knowledge can be compared.

Strategic marketing decisions are by definition intentional and serve to drive the whole organisation into a desired direction. In order to make well-informed strategic decisions that serve their intended purpose, marketers must possess knowledge. Without knowledge to base strategic decisions on, companies are prone to making disconnected, ad hoc decisions, which are unpredictable and illogical at best. (Winter 2003, 991–993.) While it is acknowledged that strategic marketing decisions require vast amounts of diverse knowledge, the field of marketing research lacks a comprehensive classification of marketing knowledge. Marketing knowledge and knowledge needs are often covered as an afterthought in a broader theoretical framework. What few attempts there have been to address marketing knowledge needs as a whole, tend to focus on marketing education and marketers as individuals, having little to do with the strategic marketing knowledge needs of a company. (Royle & Laing 2014, 69–71; Schlee & Harich 2010, 10–11.) In order to gain a holistic view of the knowledge needs of strategic marketing, this research must construct a piecemeal typology drawing from different marketing and business management theories.

Strategic decisions in marketing are distinct from most other business disciplines in that they are based on knowledge gained from both within and outside the company (Chandy 2003, 251–254). Companies can accumulate and develop their marketing knowledge by monitoring developments within their environment and aligning new insights with that which is already known. Teece (2007, 1322–1326) uses the term 'sensing' to describe activities related to business knowledge acquisition and integration. According to Teece, companies can gain new knowledge by sensing developments in four primary areas: the external markets, internal business processes, network of business partners, and customers. Fernández, Montes and Vázquez (2000, 82–85) describe a similar set of four strategic intangible resources: human capital, organisational capital, technological capital and relational capital. However similar a division, their model takes a more static, resource-based view to knowledge. Teece's framework sees knowledge more as a dynamically evolving construct, adapting and changing according to external and internal currents. This research uses Teece's framework and applies it to a strategic marketing decision making context. Figure 1 below outlines four distinct dimensions of marketing knowledge that form the basis of strategic marketing decision making.

Figure 1 Dimensions of marketing knowledge (adapted from Teece 2007, 1326; Wilden & Gudergan 2015, 183)

In accordance with the above framework, this research defines marketing knowledge as the collective knowledge that pertains to marketing decisions. As shown in Figure 1, marketing thrives when companies gain adequate information from different sides of the environment. The importance of knowledge on customer behaviour seems self-evident when it comes to strategic marketing. However, marketers will rarely be able to affect change solely on the basis that a customer needs it. Plan feasibility must be considered through the lens of internal business processes and objectives. Competitor activities must also be taken into account through market analysis. Finally, companies do not operate in a vacuum, but rather, as entities embedded in business networks. As such, implications to suppliers, business partners and other key stakeholders must also be considered. (Wilden & Gudergan 2015, 183–185.) Marketing knowledge is therefore a diverse, inter-disciplinary field that encompasses the whole company and its surroundings.

2.1.1 Customer knowledge

Companies gain customer knowledge by analysing the behaviour, needs and preferences of their customers (Joshi & Sharma 2004, 48–49). Compared to firm-specific knowledge, customer knowledge is much more dynamic in nature: always on the verge of becoming obsolete as customer needs fluctuate. Customer knowledge is also arguably one of the most complex types of knowledge that a company may possess. Customer knowledge flows through different media and it is highly contextual nature. (Mithas, Krishnan & Fornell 2005, 200.) Customer knowledge is gained through interactions with the customer. In broad terms, this interaction can be interpersonal or mediated, depending on the

situation. Examples of customer knowledge sources include direct customer feedback, customer service encounters, and web analytics. Companies can employ customer relationship management (CRM) tools and databases to manage the various pieces of information gathered from different sources. CRM solutions facilitate customer knowledge formation and dissemination. When it is easily updated and accessed, customer knowledge helps marketers to tap into latest trends, design better quality offerings and remain relevant in the eyes of the customer. (Hogan, Lemon & Rust 2002, 9–10.)

Useful as a CRM system may be in storing and handling customer data, it alone does not create equity for the marketer or the customer. CRM tools help companies to track, monitor and evaluate customer interactions, however this data must be further processed into actionable customer knowledge. Customer data tell the marketer what a customer has bought, when, and perhaps, what for. Customer knowledge forms when marketers ponder upon how these circumstances could be made better. (Davenport, Harris & Kohli 2001, 70–72.) Customer service personnel do this type of pondering and problem solving on a daily basis. Customer knowledge is indeed known to have several important benefits when applied at the operational level of the company, including better customer retention and service quality (see Hedrick, Beverland & Minahan 2007, 64–65). When it is used to develop the product or service portfolio, marketing communication or customer service procedures, customer knowledge enters the realm of strategic marketing, and its full potential is unleashed (Jayachandran, Hewett & Kaufman 2004, 226).

One of the main benefits of having accurate and detailed customer knowledge is that marketers can tailor the firm's offerings and communication according to specific customers' preferences. In B2B marketing this has been traditionally easier to accomplish than in B2C due to the sheer number of customers. With the advent of ubiquitous ICT, advanced CRM systems and developments in management practices, firms are better suited to implement this type of customer-centric marketing in consumer markets as well. (Khan, Lewis & Singh 2009, 1077–1078.) Customer-centric marketing necessitates a change of perspective from the general to the individual level. In other words, companies must make a shift from analysing superficial market segments into catering to each customer's needs individually. Research into customer-centric marketing has revealed that most marketing problems are related to suboptimal targeting of marketing activities. Segmentation and subsequent targeting fall short of delivering value effectively to a diverse population. Instead, customer-centric companies elect to eschew segmentation almost completely by restructuring the marketing mix for each customer separately. Customer knowledge allows these companies to align their marketing activities and assets on an individual basis, boosting the profitability and effectiveness of their marketing. (Sheth, Sisodia & Sharma 2000, 64–65.)

The development and focus on customer knowledge holds implicit the concept of customer perceived value. Value is not intrinsic to products or services; instead, it is derived

from the meaning given to it by customers, distributors, manufacturers and other inter-related actors. Webster and Lusch (2013, 393–396) call for the 'elevation of the marketing concept' stating that companies should actively seek to understand their customers and pursue means of co-creating value instead of delivering it. To truly understand one's customer, they argue, is to understand them as citizens with very real aspirations and pursuits. Marketing should then be focused in casting the firm with its offerings as companions to the customer journey.

2.1.2 Market knowledge

Market knowledge concerns both the composition of the market as a whole and the performance of the company within it. Companies need this knowledge to determine their bearings within the market and in relation to their competitors. The notion of performance can be derived from a company's ability to fulfil its role in creating value for its key stakeholders, most notably its customers. However, in contrast to customer knowledge, market knowledge takes a macroscopic view, focusing on the competitive landscape rather than the actions of individual actors. Such knowledge can be acquired incrementally over time; however, companies more often conduct purposeful market research to uncover key insights. Market research employs scientific methods to gain knowledge on the surrounding market. The reliability and validity of market research are reflected on the amount of work and effort that go into conducting it. Since good quality research tends to be laborious and intellectually demanding, many companies elect to purchase it as a service from an agency. (Nilsson & Helgesson 2015, 19–30.)

Market knowledge serves as a basis for market opportunity identification. It has been studied that companies that employ market knowledge in their decision making are more aware of their surroundings, and are therefore more attuned to changes within the competitive environment. The ability to quickly sense these changes and react accordingly provides them with a competitive edge. (Slater & Narver 1994, 46–48.) The focus on market knowledge in strategic decision making is referred to as market orientation, as coined by Kohli and Jaworski (1990, 15–17). Market-oriented companies actively seek to acquire and disseminate market knowledge to enhance their performance. Companies with a strong market orientation are characterised by a close inter-connectedness between firm functions and the willingness to take risks in light of new market knowledge. (Jaworski & Kohli 1993, 63–65.) The level of market orientation is reflected in the knowledge needs of the organisation. In order to tap into so-called white spaces in the market, i.e. areas of unsatisfied demand, companies must possess in-depth knowledge on their customer base, their competitors' offerings as well as their internal capability to seize emerging opportunities. (Kirca, Jayachandran & Bearden 2005, 25–27.)

Companies are fundamentally affected by the actions of their competitors. Not knowing what others are doing or planning can have potentially devastating effects on company performance. Without vigilant monitoring and analysis, companies are at risk of falling behind competing firms in customer engagement, perceived value, and ultimately, market share. Wilden and Gudergan (2015, 181–182) highlight the importance of investing in opportunity and threat sensing activities. According to the researchers, market knowledge is as much about knowing what competitors are doing and what they are not. They use the example of BMW as a company that closely monitors its competitive landscape to determine its bearings and identify untapped potential. BMW excels in leveraging its knowledge of market and technological developments to actively seek solutions that others cannot provide. However, the researchers also warn us that devoting more resources to sensing does not inherently benefit a company's performance. Active and frequent sensing works best in highly competitive and rapidly changing markets. Conversely, active market sensing may even prove detrimental in more stable markets, since extensive investments in monitoring and analysis may drive the company to adopt new developments and make changes to tried and tested business models, risking alienating a loyal customer base.

If external market knowledge is not supplemented with other types of marketing knowledge, companies risk drifting toward so-called 'me too marketing'. Generally, market-orientation is regarded as a positive force that enhances a company's innovativeness and performance (Lukas & Ferrell 2000, 239–240). However, highly market-oriented companies are prone to imitation and mimicry, shifting their focus from creating value for the customer to matching competitors' offerings. As Antil (1992, 47) points out, even companies known for their past excellence and originality in marketing are susceptible falling into the me-tooism (sic) trap. These companies lose sight of their inherent strengths and unique value propositions, and stoop to mere mimicry of what competitors are doing, the results of which can be catastrophic to company performance.

While over-reliance on market knowledge can prove hazardous to firm performance, so too can the lack thereof. Companies that neglect market knowledge in their strategic decisions risk losing sight of where the markets are headed. The lack of accurate, up-to-date market knowledge can cause market myopia, where a company keeps its course with little regard to changing customer needs or competitor activities. (Nordbø, Engilbertsson & Vale 2014, 385–387.) Market myopia and the aforementioned me-tooism are both hazards that arise from a poorly structured knowledge base, i.e. the collective stock of knowledge possessed by the company. The lack of knowledge and too one-sided knowledge seem to bear similarly bad consequences to firm performance. Both lead to unwise decision making in the long term.

A study by Song and Perry (2009, 155–158) reveals that there is a desired level of market orientation that firms should seek. According to their research, market knowledge

has the greatest effect on firm performance for firms with a high level of innovative capacity and in markets with a rapid rate of technological development. However, market knowledge also seems to provide diminishing returns on additional investment. Optimally, companies should then invest in market research only to the extent that the value of new knowledge exceeds the costs associated with the research. In conclusion, it can be stated that a certain amount of market knowledge is required as a basis for wise business decisions. However, a balance needs to be struck between the different types of marketing knowledge shown in Figure 1. Over-reliance on a single source of marketing knowledge will only cause harm for the company in the long term.

2.1.3 Firm-specific knowledge

According to the resource-based view of the firm, successful companies employ unique resources to create value for their customers (Barney 2001, 52–54). These unique resources isolate them from the rest of the market and ensure that they can maintain a continued presence in the market. While these resources can be natural in origin (e.g. oil, minerals, geographic location), most often they are linked to human capital, i.e. the stock of knowledge within a firm. The stock of unique, firm-specific knowledge forms what is known as the core competences of a firm. (Kor & Mahoney 2000, 121–123.) Core competences are by nature quite static as they reflect the total accumulated knowledge of the employees working at the company (Teece 2007, 1334-1336). Company functions, including marketing, draw from these core competences when making important business decisions.

Strategic marketing decisions involve distinguishing one's own message or offering from that of competitors. It follows that, in order to create something unique, companies must possess a unique set of knowledge. However, in a digitised world, where external marketing and technological knowledge is readily available to those seeking it, possessing knowledge that no one else may have can be considered a luxury. This places an emphasis on internal, firm-specific knowledge. Marketers searching for unique value propositions must delve deep into the firm's knowledge base and identify the core competences that set their company apart from others. These competences can then serve as the foundation of creating marketing innovations truly unique in nature. By applying difficult-to-replicate firm-specific knowledge into practice, companies shield themselves from competitors that would copy their concept and make it their own. (Rugman & Verbeke 2002, 771–775.) In other words, the isolating power of firm-specific knowledge lies in its power to protect innovations from imitation.

Firm-specific knowledge is distinct from other types of marketing knowledge in that companies need not search for it elsewhere: they already possess it. One might then presume that applying it into practice would be simple. However, accessing and applying firm-specific knowledge can prove quite difficult since most of it is tacit knowledge, embedded deep in the fabric of the company. Tacit knowledge is the locked, hidden set know-how, experience and skills that companies possess but are not aware of. (Svensrud & Åsvoll 2012, 65–67.) Its existence is only revealed through the effect it has on company performance (Leonard & Sensiper 1998, 127). It is important to note that, despite its shrouded nature, tacit knowledge is actively used whenever need for it arises. Tacit firm-specific knowledge is especially important in the more creative areas of business, such as marketing, where managers are sometimes forced to rely on 'gut feeling' or instinct as well as market research to base their decisions on. (Johannessen, Olaisen & Olsen 2001, 14–16.) Tacit knowledge allows marketers to form a complete picture by piecing together key pieces of information drawn from multiple sources and also gives them intuition when external information is scarce or non-existent. As such, tacit knowledge takes a complementary role to other types of marketing knowledge.

Tacit firm-specific knowledge is highly useful yet elusive, and it raises the questions: can it be managed and should it be? According to Nonaka, Toyama and Konno (2000, 8–10), the answer to the latter is yes. Through a process the researchers call SECI (socialisation, externalisation, combination and internalisation) companies can turn tacit knowledge into explicit knowledge and disseminate it across the workplace. According to the researchers, once tacit knowledge is made explicit and shared, such as through peer-to-peer training, its performance-enhancing ability is further strengthened. Johannessen et al. (2001, 8–11) warn that tacit knowledge is not without problems. They argue that tacit knowledge forms only in conditions of relative stability and, in times of turbulence, it can cause dissonance and reluctance toward change. Furthermore, if asked to share their wisdom, employees may fear losing ownership of their tacit knowledge and take offense. Hence, tacit knowledge has its own pitfalls that managers need to consider.

2.1.4 Network knowledge

The turn of the century has seen a paradigm shift in strategic marketing literature: companies are increasingly seen as networked actors rather than separate entities in clearly discernable markets. Companies are fundamentally embedded in intricate webs of business relationships, where information is shared and value created not unilaterally, but together through processes of co-creation. (Gummesson & Mele 2010, 189–191.) According to Achrol and Kotler (1999, 150) this has caused a shift in the role of the marketing function within the firm. The focus on marketing activities has tilted from outbound

to inbound marketing. Marketers work more as consultants and advocates for the customer, seeking solutions within the network to fit their needs, rather than marketing goods and services from the firm to its prospective customers. Hence, it is no longer sufficient to know one's customer and product. One must possess in-depth knowledge on the surrounding network, most importantly its capabilities and limitations.

Networks have two major implications for marketing knowledge. Firstly, networks can provide marketers with a specific type of marketing knowledge. Well-functioning networks allow companies to share their firm-specific knowledge and combine it with network partners to create new knowledge. In essence, the competitive advantage gained through firm-specific knowledge can be extended to network partners and combined with their shared knowledge to further build on that advantage. (Dyer & Hatch 2006, 703–704.) Secondly, in order to build a relationship where this type of mutually beneficial knowledge transfer is possible, marketers require another kind of network knowledge that enables trustful and fluent network interaction. This meta-level network knowledge facilitates information sharing between network members, enhancing the aforementioned knowledge transfer and development aspect of networking. (Beckman, Haunschild & Philips 2004, 272.)

There is a sound theoretical basis to argue that business networks are by themselves a source of marketing knowledge. Hunt, Arnett and Madhavaram (2008, 78–80) delineate a distinct relationship-specific knowledge that is based on the alliance history of different networked partners. The shared history makes it easier for network members to form holistic solutions to customer problems, thus fostering value co-creation. Gummesson (2008, 16) goes a step further to declare that companies are no longer engaged in linear B2C or B2B marketing, and that networking activities are a necessity for marketers. In what Gummesson describes as 'many-to-many marketing', companies are entrenched in complex networks and marketers must develop new skills and know-how in order to navigate this complexity. As value is no longer created unilaterally, marketers must adapt to working in unison with suppliers and business partners to co-create value with and for the customer. Ballantyne and Varey (2006, 340–341) also highlight the role of networks in the development of marketing knowledge by describing business networks as arenas of knowledge sparring and refinement. Firms may exchange ideas as a means of assessing their feasibility, and develop them further through network interaction.

Clearly, business networks are a potentially valuable source of knowledge for marketers. In order to unlock this potential, marketers must be able to foster dialogue with business partners. Dialogue is a key element in unlocking the knowledge potential within a business network. Dialogue allows network members to match their goals, capabilities and resources to form new kinds of value propositions for the customer. In other words, companies assess how they could benefit from interacting with each other. Without dialogue, existing knowledge is not exchanged nor is new knowledge created. It follows that

knowledge on the configuration of the network as well as the goals, capabilities and resources of individual network members are prerequisites for meaningful dialogue. (Grönroos 2004, 105–108.) Without this knowledge, companies will not be able to identify potential for mutually beneficial collaboration, underlining the importance of knowing one's own network and partners.

2.2 Marketing knowledge generation through digital analytics

This section covers the prior literature pertaining to research question 2: how can companies use digital analytics to generate marketing knowledge. Analytics is a term used to describe the analysis of past, current and future performance data of a business function (e.g. finance, HR or marketing). The resulting knowledge can then be used to form well-informed business decisions. Analytics is therefore a process through which companies generate knowledge that they can use to improve their performance. (Miles 2014, 144–145.) Marketing analytics, of which digital analytics is a subset, is a coordinated effort to uncover key insights on how customers interact with the company at different touch points. Well-structured marketing analytics processes not only monitor but also predict future trends within the business environment. (Hauser 2007, 40.)

Business literature has various approaches to understanding the nature of knowledge. Some researchers see knowledge as something to be possessed and transferred from one actor to another (Szulanski 1996, 29–30), whereas others view knowledge as a cognitive construct that emerges from practice through the interaction of multiple actors (Gherardi 2001, 137; Nicolini 2011, 602). These two viewpoints are known as the possession perspective and the practice perspective, respectively. While, these two perspectives may seem at odds with each other on the surface, Marabelli and Newell (2014, 485–488) direct us to look at the two perspectives as complementary to each other. From possession perspective, knowledge is a stock that is gathered, gained, refined and disseminated within the organisation, similar to what is discussed in section 2.1.2. Practice perspective, on the other hand, emphasises the development of knowledge through use: knowledge is always contextual in nature, closely related to the situation in which it is employed. Cook and Brown (1999, 387–388) see possessed knowledge as an asset or tool, which when used in practice leads to 'knowing'. According to this view, knowledge is something to possess, and knowing is the act of comprehending and making sense.

As stated above, possessing knowledge does not implicitly mean that it is being used in practice. In order to facilitate knowing, companies practice knowledge management. Knowledge management encompasses the generation, sharing and utilisation of knowledge within an organisation. If knowledge is seen as a resource, then knowledge

management involves unlocking the full potential of this resource. (Hoffman, Hoelscher & Sherif 2005, 93–95.) Knowledge management has been studied extensively through different theoretical frameworks, such as resource-advantage theory (Hunt 1999, 155–156) and complexity theory (McElroy 2000, 195–196). For the purposes of this research, we employ an absorptive capacity perspective to knowledge management. Absorptive capacity is a theoretical framework introduced by Cohen and Levinthal (1990, 128) that is used to illustrate the development and use of knowledge as a dynamic, on-going process. This framework is particularly well suited for the examination of marketing knowledge management since it places an emphasis on the ability to gather and integrate external knowledge. (Najafi-Tavani, Sharifi & Najafi-Tavani 2016, 5061.) Absorptive capacity consists of four components as illustrated in Figure 2.

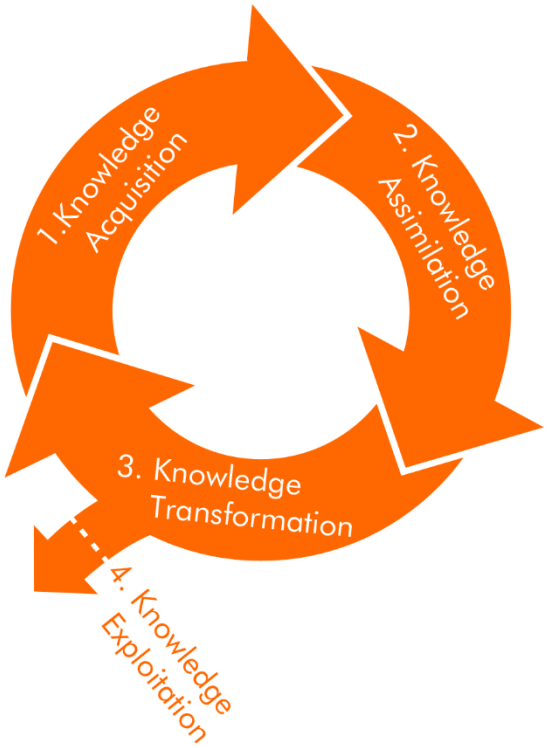

Figure 2 Components of absorptive capacity (based on Zahra & George 2002, 189–190)

According to Zahra and George (2002, 190–191), absorptive capacity is split into potential and realised absorptive capacity. The former relates to knowledge that has not yet been obtained or fully integrated within the organisation, and the latter concerns knowledge that has already been integrated. Potential absorptive capacity pertains to the acquisition and assimilation of new knowledge. Knowledge that has been assimilated into an organisation's knowledge base has the ability to transform routines and ways of thinking. In other words, absorptive capacity sees new knowledge as a driver of organisational change. The final phase in the knowledge absorption process pertains to the exploitation

of knowledge. Exploitation in this instance denotes the continued and purposeful pursuit of leveraging knowledge as an asset (Sun 2010, 508). A company with a high level of absorptive capacity is efficient in acquiring and assimilating new knowledge, as well as transforming and exploiting its current knowledge base. Such a company possesses strong knowledge interfaces and communicative practices, procedures to explicate tacit knowledge, and the ability to combine knowledge in novel ways to solve problems. (Van den Bosch, Volberda & de Boer 1999, 556–558.)

Table 1 Definitions of the components of absorptive capacity (Camisón & Forés 2010, 709)

Component	Definition	Literature
Acquisition	Acquisition capacity determines how well a company can identify, gather and process external information so that it can become valuable knowledge for the firm.	Zahra and George (2002, 190–191); Hauser (2007, 44–47)
Assimilation	Assimilation capacity concerns the comparing and combining of newly acquired knowledge with the prior existing knowledge base, and the subsequent sharing of the new knowledge across the organisation through social interaction.	Kim (1997, 87); Szulanski (1996, 29–30); Zander and Kogut (1995, 77–79)
Transformation	Transformation capacity refers to a company's ability to adapt new knowledge to drive change in the company's routines, processes and ways of thinking.	Zahra and George (2002, 190); Gold et al. (2001, 191–192); Camisón and Forés (2010, 708–709)
Exploitation	Exploitation capacity determines a company's ability to leverage knowledge in order to perfect its existing processes, create new innovative solutions, and form wise decisions.	Sun (2010, 508); Van den Bosch et al. (1999, 556–558.)

The above table illustrates the four components of the absorptive capacity framework. As Camisón and Forés (2010, 709) contend, the extant literature on absorptive capacity does not provide a clear distinction between these four different components. This inconsistency notwithstanding, the four-component division aids in concretising absorptive capacity, as otherwise it would be too abstract and unwieldy for drawing practical implications (Marabelli and Newell 2014, 494–495). In order to mitigate the problem of inconsistency, this research paper draws from a variety of academic literature to form a comprehensive definition of each component of absorptive capacity. In this section, the focus is on the components of potential absorptive capacity in relation to digital analytics: acquisition and assimilation of knowledge. Correspondingly, the two components of realised capacity, transformation and exploitation, are discussed in section 2.3.

2.2.1 Acquisition of knowledge

Digital analytics is a method for acquiring marketing knowledge from analysing observational data on people's behaviour online (Chaffey & Patron 2012, 32–36). In this research paper, digital marketing data are seen as the raw, unprocessed data that digital marketing platforms compile whenever users do something – e.g. enter a website, click a tooltip or browse within a section for a definite amount of time. The sheer amount of data that digital marketing channels provide can be overwhelming without the proper tools and expertise. Digital marketers employ tools such as Google Analytics or Piwik to help them wade through the large masses of raw data. Different tools combine different metrics to analyse the various aspects of digital marketing; e.g. clickstream analysis tools are used to gather data on where users click on a given website, whereas multi-channel analytics tools enable the measuring of the effects of marketing campaigns across different channels. (Kaushik 2010, 29–35.) Before the selection of the analytics tool to be used, the marketer should first lay out the analytics objectives, namely, what it is that he or she wishes to uncover. The marketer then needs to select the appropriate tools and platforms to best suit these objectives.

Once the objectives and analytics tools have been carefully selected, a process called MAIP can begin (see Figure 3 below). MAIP is short for mining, analysis, interpretation and presentation, and it delineates the process through which marketers process raw digital marketing into marketing knowledge. (Hauser 2007, 44–47.) The first stage of this process, data mining, involves extracting useful bits of information from large volumes of data. Data mining is highly useful in situations where the examined dataset is expansive and diverse, as is the case when analysing online discussions in social media. (Culotta & Cutler 2016, 344–346.) Text analysis of user-generated content (UGC) is one approach to data mining. Companies use this technique to mine for reviews and chatter on their products and services. Mining for UGC in online social platforms such as Twitter provides marketers with useful data on what is being said about them and their products by users. (Fader & Winer 2012, 370–371.) Sentiment analysis takes a slightly more abstract approach to data mining. It involves compiling data on the feelings, or sentiments, that users express about a brand online. Sonnier, McAlister and Rutz (2011, 712–714) state that sentiment analysis can provide companies with useful information on how they are perceived by users. In addition to text and sentiment analysis, a myriad of other data mining techniques are available to digital marketers. The chosen method of data mining should be closely tied in with the set objectives for digital analytics.

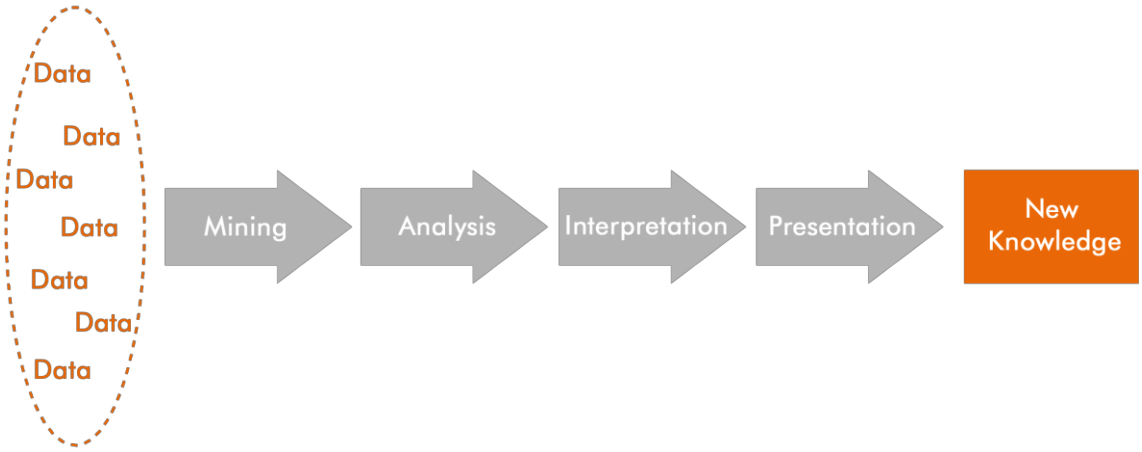

Figure 3 The MAIP model for knowledge acquisition through analytics (based on Hauser 2007, 44)

After relevant data has been mined from the aggregate data gathered, the marketer must analyse the data. How the mined digital marketing data are analysed is largely dependent on the metrics used by the marketer. A metric acts as a lens through which data are given meaning. If, for instance, the company is interested in how many new users visit the company website within a day, the marketer needs to decide a method for identifying unique users and then measuring the number of views over the course of 24 hours. Each metric brings its specific viewpoint to the analysis. (Rappaport 2014, 113–117.) The metrics are subjected to statistical analysis to draw results for interpretation. Standard methods of statistical analytics can be used to understand the relationships of the variables measured through the selected metrics. As such, the general principles governing statistical significance apply, meaning that the data set should be comprehensive and representative of the population. The validity of the results depends largely on how well the selected metrics match the set objectives for the analysis. (Hauser 2007, 46.) Reliable and valid results are therefore dependent on accurate and plentiful data, appropriate metrics and the correct application of statistical methods of analysis.

Interpretation of the results is arguably the most important phase in the MAIP process (Figure 3) in that results without interpretation do not facilitate change. Organisational change is only possible when the relevance and practical implications of the analysis results have been established. One method of interpretation is to determine the return on investment (ROI) for digital marketing activities over the examined time period. Through this method, the marketer investigates whether the added digital marketing investments have yielded positive results in user engagement, brand perceptions, or other variables measured. (Fisher 2009, 189–191.) In addition to this cost-benefit method, marketers can simply combine and compare the results to see if they correspond to prior marketing knowledge. By doing so, marketers will discover changes and developments that have taken place within the environment. (Hauser 2007, 46–47.)

A common pitfall of the interpretation phase is related to attribution. Attribution is the attempt by a marketer to assign achieved results to specific actions taken. Attribution also involves distinguishing from one another the specific contributions of separate marketing activities. (Nichols 2013, 62–65.) 'Overattribution bias' is a common error of judgment that occurs when attempting to align cause and effect in situations with limited information. People are likely to attribute effects to factors they are most familiar with rather than acknowledge the existence of other possible causes. (Webster 1993, 261–262.) Acting on misinterpreted results may lead to suboptimal allocation of resources, misguided future actions, and weaker performance. Therefore, it is vital that the digital marketer be able to interpret the results with a critical mind, factoring in other possible causes for the monitored results.

The final phase of the MAIP process, presentation, concerns the processing of the interpreted results into a communicable form. This is usually done through presenting the findings in written, spoken or visual form as a report. Visualisation is an indispensable form of communicating complex findings, even when used ad hoc during a spoken presentation to colleagues. Snyder (2014, 2244–2245) praises visual aids and drawing as a means of presenting new information to others. According to her, visual representations help engage the audience, facilitate conversation, and boost retention of presented information. Hardey (2012, 159–160) further emphasises the importance of data visualisation in relaying new marketing knowledge to others. Marketing as a discipline involves exploring complex webs of causality and interconnectedness that can be difficult to comprehend and to communicate.

2.2.2 Assimilation of knowledge

Assimilation takes place when new knowledge encounters the firm's existing knowledge base. New knowledge is contextualised, shared and combined with that which is already known. According to Kim (1997, 87), a company's ability to assimilate new knowledge is largely based on the relevant prior knowledge they already possess. Knowledge is cumulative in nature: it is first gathered and then built atop the existing knowledge base, taking the form of newly integrated knowledge. Therefore, the same piece of new knowledge may manifest in different ways depending on the company.

Knowledge assimilation is essential in generating the most value from a given piece of new knowledge. Through the process of assimilation, marketers assign meanings and relevance to new knowledge. For instance, if a digital marketer uncovers changes in consumer behaviour through the use of a social media platform, he or she can then analyse whether or not this could be indicative of a bigger trend. This piece of new market knowledge is then given relevance beyond the digital marketer's immediate domain, thus

helping the dissemination of new knowledge across the organisation. (Hauser 2007, 48–53.) Conversely, when digital analytics knowledge is not assimilated properly, it becomes disconnected from the company strategy, leading to a silo mentality as explained by Assael (2011, 42–45).

Impeding the flow of knowledge is the fact that some of the knowledge gained through digital analytics may very well be tacit in nature, perhaps not noticed by the digital marketer or deemed relevant to other members of the organisation (Johannessen et al. 2001, 8–11). Identifying and explicating key pieces of new knowledge can be difficult at times. Digital analytics, as stated in the previous section, is an on-going process where new knowledge is created dynamically rather than punctually. While it may be plausible for the individual digital marketer to capture and exploit the constant stream of new knowledge, it is less so for other members of the organisation. This is because new knowledge does not automatically flow to others; knowledge must be actively shared with other members of the organisation through social interaction (Augier & Teece 2006, 396).

A concept closely related to assimilation is the dissemination of knowledge. The dissemination of knowledge refers to the sharing and adapting of knowledge so that it becomes ingrained in the fabric of the company (see e.g. Kohli & Jaworski 1990, 5–6). Zander and Kogut (1995, 77–79) reveal that an organisation's innovative capability is perhaps better explained by how companies integrate and share new knowledge than the knowledge itself. Within new knowledge lies a seed of change, and in order to unlock the benefits of the new knowledge, this seed must be given fertile ground; otherwise it will not bear fruit. First and foremost, the dissemination of knowledge requires procedural and structural flexibility. Due to the disruptive and dynamic nature of knowledge, companies are better equipped to absorb new knowledge by having pliable organisational structures that allow for easier allocation of resources and reorganisation of processes. Furthermore, effective communication and the capability to explicate tacit knowledge are both essential in the dissemination of knowledge.

While information technology does play a major role in the knowledge acquisition phase of digital analytics, the assimilation of this knowledge requires a different set of skills and capabilities altogether. (Quinton & Simkin 2016, 7–9.) Mulhern (2009, 99) laments over the general lack of understanding of digital analytics and its possibilities, which has lead to a widespread belief that digital analytics is best suited for IT rather than marketing professionals. The misconception of digital analytics as an IT activity has likely hampered its use in strategic marketing decision making. The over-emphasis on the technical aspects of digital analytics has lead to a situation where the knowledge generated through digital analytics becomes isolated at the operational or tactical level due to poor communication. On the other hand, if upper management does not command a rudimentary understanding of the technical aspects of digital analytics, communicating new findings might be difficult. Deiser and Newton (2013, 12) call for 'reverse mentoring' in

these cases, whereby the digital marketer would assume the role of educator to help his or her superiors to better understand the more technical side of analytics. Ultimately, the IT–marketing gap will persist so long as digital marketers cannot counterbalance the technical aspects of digital analytics with general business skills.

2.3 Marketing knowledge use in strategic decision making

The literature covered in this section is related to research question 3: how can companies use digital marketing knowledge in strategic decision making. The latter two stages of absorptive capacity are collectively referred to as realised absorptive capacity. These stages focus on utilising the newly assimilated knowledge in a passive (transformation) or active (exploitation) manner. (Zahra & George 2002, 189–190.) New knowledge disrupts current ways of thinking, raises questions, and by answering those questions, leads to change. In terms of absorptive capacity, transformation is when a company begins to question its current routines and processes in light of new knowledge. Exploitation, on the other hand, is when company uses new knowledge as a basis for its decisions. Whereas transformation occurs naturally after new knowledge has been assimilated, exploitation makes active use of knowledge. Nonetheless, both two aspects drive organisational change in their own right, and can be considered knowledge use.

2.3.1 Transformation of knowledge

Once knowledge has been assimilated, it is in the possession of the firm. If acted upon, assimilated knowledge can be 'transformed' in a way that it can fuel organisational change. Absorptive capacity literature outlines transformation as adaptation, problem solving and conversion of knowledge, which fuels organisational change. (Zahra & George 2002, 190.) Through transformation, knowledge is given purpose and concretised; knowledge interlocks with practical issues and problems that the company faces. As knowledge is transformed to better fit the company's objectives, so too must transformation occur within the organisation as well. Knowledge transformation alters employees' routines, practices, processes and ways of thinking within the company. (Camisón & Forés 2010, 708–709.) Thus, knowledge transformation can be seen as a disruptive process that reorganises organisational processes and renews outdated routines.

Kim (1998, 507–508) uses the example of organisational crises to illustrate that a company's transformative capacity is linked with problem solving. Transformation occurs when an organisation comes to possess a new piece of knowledge and decides to act upon

it, adapting its current processes accordingly. A key insight is that acquiring and assimilating new knowledge does not inherently drive positive change. The reason being that either the new piece of knowledge is incompatible with the organisation or the organisation has not adapted itself to accommodate the new knowledge. Adaptation is a necessary stage in applying knowledge into practice, especially if it is derived from a vastly different context or academic literature, for instance. Theoretical insights rarely translate directly into practical insights to be used as business decision support. Similarly, a key insight drawn from a company operating in a different industry must first be adapted to the new context before it can be used. Kim (1998, 507) argues that a company's intensity of effort toward problem solving is key in determining whether the new knowledge will cause the organisation to transform or not. This implies that new knowledge must be applied to solve emergent problems before any meaningful change may occur; otherwise the new knowledge becomes superfluous without perceivable relevance to the business.

Gold, Malhotra and Segars (2001, 191–192) introduce the concept of 'conversion' to describe the ways in which new knowledge improves the performance of an organisation's internal processes. To avoid redundancy and obsolescence, companies actively pursue change in their routines, processes and ways of thinking. Redundancy refers to the tendency of new knowledge to become isolated in silos, impeding knowledge sharing and causing inefficiency. Different units within the same organisation expend time and resources to uncover the same piece of knowledge, oblivious of each other’s actions. Obsolescence is when new knowledge does not permeate the whole organisation, which then leads to discrepancies and outdated perceptions. Through conversion, companies pool knowledge from various sources together to form a shared understanding of the state of affairs, vastly improving workflow and productivity. Thus, according to this view, knowledge itself is not what disrupts, but rather, companies disrupt existing routines, processes and ways of thinking to better integrate new knowledge.

Jansen et al. (2005, 1009–1010) underline the importance of knowledge transformation, stating that it is key in unlocking the opportunities brought by new knowledge. In their research, they found that a company's ability to transform new knowledge, and existing processes and routines accordingly, is largely determined by three organisational mechanisms: cross-functional collaboration, participation in decision making, and job rotation. Here, cross-functional collaboration refers to other business functions' involvement in marketing activities. Research has shown that cross-functional collaboration facilitates the dispersion of marketing knowledge within an organisation, raises the organisation's commitment to set strategic marketing objectives, and enhances marketing performance overall (Workman, Homburg & Gruner 1998, 32–33). Knowledge transformation further benefits from employee participation in strategic decision making. Cohen and Levinthal (1990, 132) reveal that top managers are often preoccupied with managerial

tasks, making it difficult to stay abreast of all relevant changes in the business environment. If lower level employees are allowed to participate in strategic decisions, they act as 'receptors' of key marketing knowledge, creating a good foundation for diverse new ideas. Companies can also facilitate knowledge transformation through employee recruitment. Job rotation injects the company with new ideas and business connections, enhancing knowledge transformation (Mumford 2000, 340–341). This is arguably the most direct of the three mechanisms that determine an organisation's knowledge transformation capability.

2.3.2 Exploitation of knowledge

The fourth component of the absorptive capacity framework is the exploitation of knowledge. Exploitation is the term used in the theory to describe the harvesting and selecting of key pieces of knowledge to solve a particular problem (Van den Bosch et al. 1999, 551–553). Knowledge exploitation can be an intensive and arduous task. A marketer needs to establish what kinds of knowledge are suited for solving the problem at hand. As discussed in section 2.1, strategic marketing decisions are often based on knowledge generated through various sources. These different knowledge sources may be inconsistent or even in conflict with each other. Thus, the marketer may be forced to use approximations and loosely connected knowledge in situations where available knowledge is scarce or one-sided. Van den Bosch et al. (1999, 558–559) state that a stable knowledge environment facilitates the exploitation of knowledge and complex decision making. In stable knowledge environments, the rate of technological development is slow, market growth is stagnant and customer retention is high. Conversely, turbulent knowledge environments enhance knowledge acquisition and assimilation but hinder comprehensive knowledge exploitation. Turbulence decreases the downtime in between decisions, reducing the scope of how broadly companies can make use of their existing knowledge base. The researchers also note that existing knowledge is at a higher risk of becoming obsolete in a turbulent environment (Van den Bosch et al. 1999, 553).

There is substantial theoretical evidence supporting that strategic marketing decisions follow non-linear, erratic paths that can change course depending on environmental factors, such as changes in the competitive or technological environment (Hough & White 2003, 486–488; Mitchell, Shepherd & Sharfman 2011, 685–689). Moreover, strategic decisions are heavily influenced by managers' personal aspirations and biases (Hambrick, Finkelstein & Mooney 2005, 479–482). As such, a linear depiction of strategic decision making is grossly inaccurate and misleading at best. This inaccuracy notwithstanding, a sequential examination of strategic decision making is irrelevant to the stated aim of this

research. As such, exploitation of knowledge is next discussed in the context of the different dimensions of strategic decision making irrespective of their sequential order: these dimensions may overlap and occur simultaneously. Drawing from academic literature, strategic decision making can be divided into four dimensions (Figure 4): strategic analysis (Hall 1992, 142), strategy formulation (Ramaseshan, Ishak & Kingshott 2013, 1224), implementation of strategy (Thorpe & Morgan 2007, 661), and evaluation of strategy (Manion & Cherian 2009, 480.) Next, these dimensions are discussed individually in terms of knowledge exploitation.

Figure 4 Dimensions of strategic decision making

Strategic analysis can be viewed as the groundwork for strategic decision making. In strategic analysis, managers exploit knowledge to comprehend and make sense of their firm's situation. It entails scanning the company and its environment for knowledge that is pertinent to the decision at hand. Several widely used frameworks have been developed to help managers in this task: the SWOT (strengths, weaknesses, opportunities and threats) and PESTLE (political, economic, social, technological, legal and environmental), to name but a few. The purpose of strategic analysis is to combine the subjective opinions and experiences of business managers with objective data collected through various channels, such as market research and digital analytics. (Pickton & Wright 1998, 107.) The synthesis of different pieces of knowledge leads to a more comprehensive understanding of the current state of affairs, enabling wiser strategic decisions.

The formulation of strategy involves setting objectives as well as outlining the actions and resources required to reach these objectives. In marketing, the outcome of this formulation process is a marketing plan. Piercy and Morgan (1994, 167–168) reveal that firms often overemphasise the structure and form of the marketing plan, leading to un-

necessary rigidity. According to the researchers, a sound marketing plan combines qualitative and quantitative elements and emphasises strategic thought over form and structure. The use of knowledge in marketing plan formulation differs somewhat from strategic analysis. Since marketing plan formulation is itself an innovative process, knowledge is used as a conduit to envision possible futures rather than to comprehend the present. As internal and external forces shape these possible futures, the marketing plan should anticipate these changes. Ramasheshan, Ishak and Kingshott (2013, 1240–1241) see marketing plan formulation as an interactive and dynamic process, where plans objectives and means are revised as new knowledge is uncovered.

The implementation of strategy is about activating the formulated marketing plan. How knowledge is exploited at this stage is largely dependent on the model of implementation. Thorpe and Morgan (2007, 661–664) suggest that there are three models of marketing plan implementation: change, collaborative and cultural. The change model denotes a hierarchical system, whereby senior marketing managers act as architects, using knowledge to set tasks and assign responsibilities in order to reach the set objectives. The change model distinguishes 'doers' from 'thinkers', and emphasises efficiency and performance. The collaborative model is more interactive in nature. The marketing plan implementation in this model involves 'brainstorming' and active knowledge sharing. This model excels in reducing conflicts but suffers from inefficiency due to prolonged negotiations. The cultural model is common in decentralised organisations, where a high degree of freedom is given lower level marketing personnel. In order to be successful, this model requires that employees are committed to a shared vision and possess the breadth and depth of knowledge required to participate in strategic decision making.

As stated, strategic decisions rarely follow a perfectly linear path. Marketing must be evaluated and revised intermittently, yet this is not to say that the plan is somehow faulty. Quite the contrary, a well-structured marketing plan is flexible and yet still consistent. Knowing why these revisions are needed is key to understanding the dynamics of knowledge exploitation in the implementation stage. Whalen and Boush (2014, 461) in their study found that one-third of deviations from the marketing plan occur in response to internal forces (e.g. financial problems, planning errors, changes in personnel), and two-thirds were attributable to external forces (e.g. competitor actions, customer feedback, market conditions). The occasional deviations from strategic decisions are not to be confused with erratic decision making, however. As Mitchell et al. (2011, 697) point out, deviations in strategic marketing decision making are beneficial to the extent that there still remains a coherent, underlying logic in the marketing plan. Marketing decisions may become disconnected from this logic due to miscommunication or differences in opinion.

2.4 Analytical framework

In this section, literature on marketing knowledge and the absorptive capacity theory covered in chapter 2 is applied to answer the research purpose: *to investigate how companies can integrate digital analytics in their strategic marketing decision making*. The analytical framework below is an absorptive capacity approach on how digital analytics is integrated into a company's strategic decision making, beginning from the acquisition of new knowledge through digital analytics and ending in the use of this knowledge in strategic decision making. In accordance with the absorptive capacity theory, this study posits that digital analytics should not be viewed solely on the basis of the knowledge it generates, but rather, how this knowledge becomes integrated into the seams of the company. The analytical framework (Figure 5) consists of a cyclical body of arrows that signifies continuity and dynamism. This cycle can be fuelled by various mechanisms (e.g. customer analytics, market research, networking between business partners, etc.), but in accordance with the stated purpose of this research, digital analytics is now assigned the role of *primus motor*.

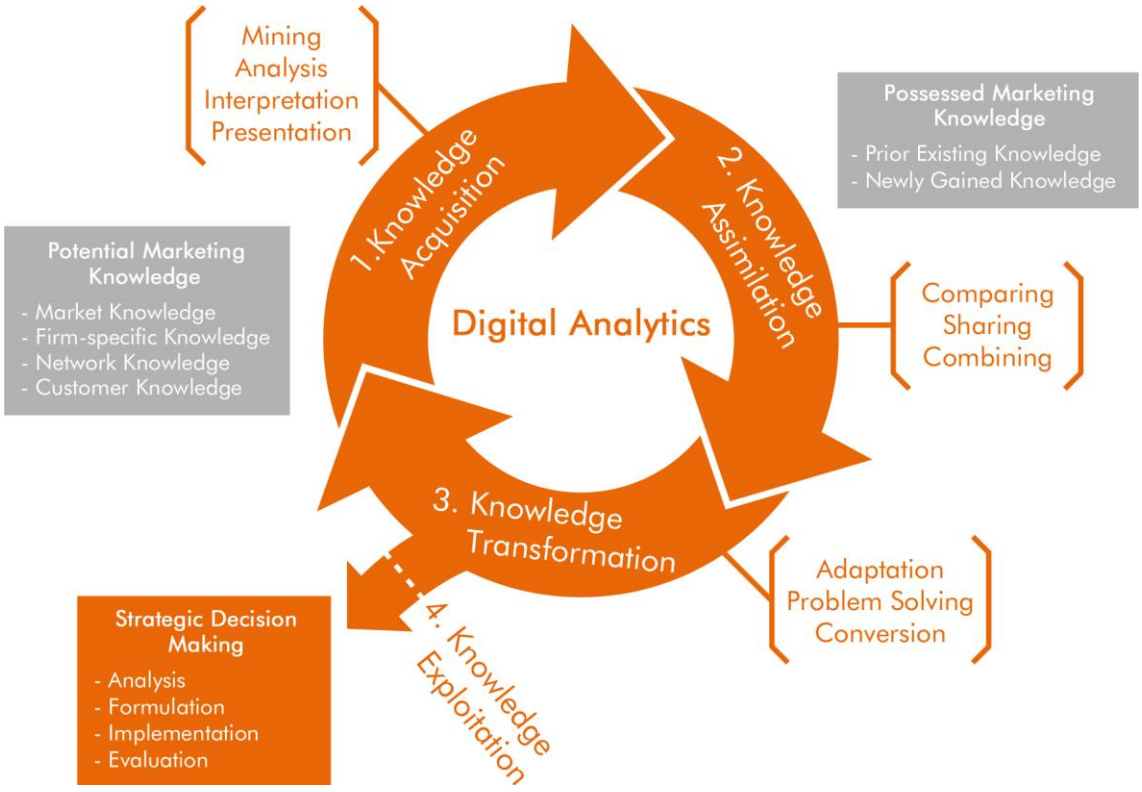

Figure 5 Integration of digital analytics in strategic decision making

As the first research question of this study signifies, it is important to understand first of all, what kind of knowledge does digital analytics bring to strategic marketing decision making. Knowledge of various kinds is the bedrock of strategic marketing decisions. The

underlying rationale is that through new knowledge decision makers become more informed, and thus, are able to make 'wise decisions' (Nilsson & Helgesson 2015, 24). In this study, the potential marketing knowledge that a company may come to possess is divided into four dimensions. First, market knowledge, which pertains to a company's situation in relation to the competitive market. The second dimension, firm-specific knowledge, concerns the tacit and explicit knowledge that form the core competences of the company. Third, network knowledge that consists of knowledge on the business network, in which the company is embedded. The fourth marketing knowledge dimension refers to knowledge related to the customer base as well as the preferences and behaviour of individual customers. The central notion is that the synthesis of knowledge gathered through different sources creates a comprehensive view of a company's past, present and future.

Pertaining to the second research question, how companies can use digital analytics to generate marketing knowledge, the two first components of the absorptive capacity come into play. As Gherardi (2001, 137) aptly explains, knowledge is essentially a cognitive construct; it is not captured but rather generated through psychosocial processes. In the beginning of the knowledge acquisition stage, the marketer may have an idea or a need for a piece of knowledge; in the analytical framework, this is referred to as potential marketing knowledge. The marketer may then use digital analytics as a means to generate the knowledge to answer this need. The MAIP model highlights the importance of information processing capabilities in the generation of knowledge; namely, data mining techniques, data analysis tools and skills, interpretation and comparative analysis, and finally, the data presentation skills (visualising, categorising, summarising, etc.).

Through acquisition, new marketing knowledge has been generated; as such, it becomes possessed marketing knowledge for the company. Acquiring knowledge alone is enough for it to become applicable in practice. The newly acquired knowledge at this stage exists primarily as tacit knowledge in the mind of the digital marketer, and is therefore not at the disposal of the rest of the organisation. Neither has it been evaluated or challenged by others. Through assimilation, the new knowledge is shared with other members in the organisation in both formal (meetings, presentations) and informal (coffee table discussions, lunch breaks) situations. These social interactions shape the newly acquired knowledge: the knowledge is combined with and compared against prior knowledge in order to form a more holistic understanding of the topic in question. Knowledge assimilation is a crucial stage in the knowledge generation process, since failing to do so will likely result in a knowledge silo, as warned by Augier and Teece (2006, 407).

The third research question, how companies can use digital marketing knowledge in strategic marketing decision making, encompasses the two latter parts of the absorptive capacity framework: knowledge transformation and exploitation. In practice, this means

that the knowledge is used to drive organisational change (transformation), after which it can be applied in practice (exploitation). Transformation reflects the disruptive nature of new knowledge: it drives individuals in an organisation to question the practicality of their current routines and processes. At this stage, the company adapts the new knowledge to the actual issues at hand. The new knowledge helps the organisation in identifying and solving problems in its current processes. Finally, through conversion, the new knowledge is used to improve these processes. Knowledge transformation is often a strenuous process that requires cross-functional collaboration and strategic commitment to organisational change (Jansen et al. 2005, 1000–1002). As such, resistance to change, unwillingness to accept new ways of working, or reluctance to change one's established routines may cause friction, seriously undermining the knowledge transformation process.

At the knowledge exploitation stage, the knowledge generated through digital analytics has become virtually indistinguishable from the rest of the marketing knowledge employed by the company. Whereas transformation is an abstract, disruptive force of change, exploitation is the very conscious application of possessed knowledge (Van den Bosch et al. 1999, 551–553). Strategic decisions bear distinct implications for knowledge exploitation. For one, strategic decisions are categorically important for the company, and as such tend to be quite knowledge-intensive (Van den Bosch et al. 1999, 558–559). Furthermore, strategic decisions tend to occur in stages (analysis, formulation, implementation, evaluation), and knowledge needs may vary between them. Finally, strategic decisions may change course midway and follow non-linear paths due to their broad scope and laborious nature (Hough & White 2003, 486–488).

3 METHODOLOGY

This chapter outlines the methodological choices made in order to cover the stated purpose of this research: *to investigate how companies can integrate digital analytics in strategic marketing decision making*. Methodology answers the question of how the research purpose is approached in this study (Eriksson & Kovalainen 2008, 13–14). Gummesson (2003, 485–487) sees methodology as a set of rules that determine what can be understood and how. A systematic approach to empirical analysis necessitates that methodological choices be purposefully selected, expressly stated and rigorously observed. This chapter is divided into sub-sections that concern particular methodological questions. Section 3.1 concerns the selected research approach. Here, it is explained why a qualitative approach was chosen for this research and what method of reasoning best describes this research setting. Section 3.2 outlines the chosen research strategy: why a single case study was selected and what was the chosen time frame of the study. Section 3.3 covers the practical methods of data collection and data analysis that yielded the empirical findings of this research. Finally, section 3.4 examines the issues of validity and reliability in the context of this research. Here, a critical evaluation of the chosen data collection methods is conducted to delineate their possibilities and limitations.

3.1 Research approach

For this study, a qualitative research approach was selected. The main reason for this was the lack of prior research on the topic of digital analytics use in strategic marketing decision making. According to Eriksson and Kovalainen (2008, 298–299), a qualitative approach is suitable for exploring and framing new or unknown phenomena. Qualitative research examines a phenomenon without removing it from its context. The contextual nature of qualitative research limits the extent to which it can predict future outcomes, but enables a holistic understanding of the explored phenomenon. Qualitative research allows for the examining of a phenomenon along with all possible contingencies instead of eliminating extraneous variables as sources of bias. Also, due to the pronounced lack of prior research into the topic of this study, the formalisation of robust hypotheses would be difficult and impractical. A qualitative approach offers flexibility in terms of sensing emerging themes that arise from the empirical evidence. While *a priori* knowledge can be helpful in the analysis of the findings in qualitative research, it is not expressly needed as their basis, as is the case with hypotheses in quantitative studies. (Freeman, Preissle, Roulston & Pierre 2007, 26–27.)

An abductive method of reasoning was chosen for this research. Abduction is often contrasted with the two polar opposites on the spectrum of reasoning: deduction and induction. Deduction draws from robust theoretical evidence (as is the case in natural sciences) to form testable hypotheses. In inductive research, a generalisable theory stems from empirical findings, not predetermined by prior research. Abduction combines both prior research and empirical findings to form a refined framework pertinent to the research topic. (Kovács & Spens 2005, 135–138.) Abductive reasoning calls for a continuous dialogue between theory and empirical observation. New findings are mirrored against previous knowledge, after which supporting, contradicting, surprising and serendipitous findings are used to synthesise new knowledge. (Dubois & Gadde 2002, 558–559.) The choice to adopt an absorptive capacity approach to the research topic meant that this study took on a process perspective, rather than a possession perspective, to knowledge management. Knowledge is viewed through a four-staged process of knowledge integration: acquisition, assimilation, transformation and exploitation. The analysis of the findings was then structured in relation to these theoretical concepts, with the second research question covering the first two stages and the third question pertaining to the latter ones. Through abduction, the empirical analysis was essentially anchored in prior theory, with its distinctive constructs and concepts serving as a basis for discussion.

3.2 Research strategy

Single case study was chosen as the research strategy for this study. A single case study is an inquiry into a phenomenon in a single instance, i.e. case, within its real-life context (Dul & Hak 2007, 3–6). As illustrated in the theoretical framework of this study, to understand how digital analytics can be integrated in strategic marketing decision making, one must attain a holistic understanding of the phenomenon within its actual context. Merriam (2014, 50–54) asserts that while a single case study has its limitations, it is a powerful research strategy that allows the researcher to form a comprehensive picture of a complex phenomenon. Rooted in a tangible, real-life situation, case study is a source of rich and detailed information. Since this research combines elaborate concepts, such as marketing knowledge, knowledge use, and strategic decision making, a single case study was deemed the most appropriate research strategy.

Based on Yin's (2003, 4–8) typology of case studies, this study represents an exploratory case study. As is characteristic of an exploratory case study, the topic of this research has been left largely undiscussed by researchers in the past. An exploratory case study serves to establish a foothold in a previously scantly studied topic for further research (Yin 2009, 6–9). Exploratory case studies typically do not, however, create a basis for

causal relationships, as these are better left for explanatory studies to establish (Baxter & Jack 2008, 548–552). This study draws concepts from a predefined theory and mirrors them against the findings gained through empirical observation. In a sense, this is study also contains descriptive elements: exploring and describing reality in relation to previously established theory.

The household care product category of the consumer goods company Unilever was chosen as the case of this study. The researcher of this study had unique access to the case company, since he was employed by the company as an assistant brand manager at the time. Eisenhardt and Graebner (2007, 27) posit that single cases are typically chosen because they are "unusually revelatory, extreme exemplars, or opportunities for unusual research access". The researcher was aware that the case company had recently invested heavily on the development of its digital marketing and analytics capabilities. The case company was therefore likely to be a source of illuminating data on the research topic. In addition, two digital marketing agencies of Unilever, i.e. companies that provide digital analytics services to Unilever, were chosen in order to gain a business partner perspective for the analysis. Since these agencies were responsible for conducting digital analytics services for Unilever, these were likely to provide useful insights especially in relation to knowledge acquisition and assimilation through digital analytics.

The conceptualisation and operationalisation of this research illustrated in Table 2 below was used to design the thematic structure for the semi-structured interviews (Appendices 1 & 2) used in this research. In a semi-structured interview, the progression of the interview is designed around specific themes that derive from the theoretical framework of the study (Bryman & Bell 2015, 484–485). According to Rowley (2012, 262), semi-structured interviews comprise a set of predefined questions discussed in a more or less predetermined order. However, the exact order and depth of discussion on a particular topic may vary between interviews. Using this method of interviewing allowed the researcher of this study to delve deeper into particular topics that the interview participants wished to discuss further, whilst ensuring that each of the predefined themes received adequate coverage.

Table 2 Conceptualisation and operationalisation of the research

Purpose of the study				
To investigate how companies can integrate digital analytics in strategic marketing decision making				
Research questions	**Key concepts**		**Themes**	**Example interview questions**
	Knowledge characteristics	**Knowledge integration process**		
1. How does digital marketing knowledge relate to conventional marketing knowledge?	Market knowledge Firm-specific knowledge Network knowledge Customer knowledge		Knowledge needs of strategic marketing	Please give an example of a strategic marketing decision you were involved in. What kind of information did you use as a basis for this decision? How does digital marketing knowledge differ from other marketing knowledge that you use?
2. How can companies use digital analytics to generate marketing knowledge?	Digital analytics Existing prior knowledge Newly gained knowledge	**Knowledge acquisition**: Mining Analysis Interpretation Presentation	Gaining knowledge through digital analytics	How do you mine digital marketing data for useful pieces of information?
		Knowledge assimilation: Comparing Sharing Combining	Processing digital marketing knowledge	How do you find combining digital marketing knowledge with knowledge from other sources?
3. How can companies use digital marketing knowledge in strategic decision making?	Knowledge use	**Knowledge transfor-mation**: Adaptation Problem solving Conversion	Digital marketing knowledge as a driver of organisational change	Has digital marketing knowledge made you question your routines or processes? Has digital marketing knowledge caused change in Unilever's processes and ways of working?
		Knowledge exploitation: Analysis Formulation Implementation Evaluation	Benefits and challenges of using digital marketing knowledge	Please give an example as to how digital marketing knowledge has benefitted Unilever.

Pertaining to the time horizon of this research, a cross-sectional approach was chosen. A cross-sectional study examines a phenomenon at a point in time. Generally in cross-sectional studies, findings are gathered from multiple different sources within the examined case(s). One of the strengths of a cross-sectional study is that it has the ability to uncover rich insights on current opinions, meanings and ways of thinking. On the other hand, cross-sectional studies have a limited capacity to establish causality and to infer how a situation develops over time. (Saunders & Lewis 2012, 123–124.) Although the absorptive capacity assumes a process perspective on knowledge management, this study uses the theory primarily for its conceptualisation and structure on how knowledge is integrated within an organisation. The actual output of the knowledge integration process over the course of time is not especially pertinent to the research purpose, however. In this case study, interviews were conducted at different organisational levels and functions, accompanied by two written digital analytics reports, so that a comprehensive understanding of the current state of affairs could be established. The contributions of this research may then serve as a foundation for further longitudinal study on the topic.

3.3 Description of the case

Unilever is a multinational corporation operating in the business of fast-moving consumer goods (FMCG). The company is headquartered in Rotterdam and London, its two cities of origin. The company owns over 400 brands and operates in more than 100 different countries. In 2015, the company generated €53.3 billion in gross revenue and employed 168,000 people worldwide. (About Unilever.) As one of the biggest FMCG companies in terms of revenue and advertising expenditure, Unilever employs vast quantities of diverse data on a daily basis to guide its marketing efforts. Unilever constantly seeks new ways of measuring marketing performance, finding out new consumer insights, and developing methods of connecting with the consumers of their products (Kjersten Moody of Unilever: Interview at TFM&A 2015). Due to the size of its business and its involvement in the field of marketing analytics (incl. digital analytics), it was ascertained that Unilever would be a rich source of data for this case study.

For this study, three different regional offices were chosen for data collection: Helsinki (Finland), Solna (Sweden) and Rotterdam (the Netherlands). Collecting data samples from different countries allowed for gathering comparable data from different contexts. This multinational sampling was also imperative in terms of data saturation. Through the preliminary interview with one of the participants, it became clear that focusing on a single regional office would not yield an adequately large and diverse sampling unless multiple product categories were to be examined. However, in order to enable a rich and detailed analysis coupled with a high degree of comparability, it was deemed necessary

to confine sampling to a single, uniform environment. As such, a single product category was chosen as the basis of the sampling: household care products.

A preliminary interview with one of the interview participants revealed that it would be fruitful to interview employees of Unilever's agencies. Two of Unilever's global roster agencies were identified as appropriate interview candidates: Mindshare and P+SBD. Mindshare is Unilever's global business partner as its media agency. It provides a wide range of services and solutions centred on media planning and procurement. (Company Overview of Mindshare – –.) P+SBD is a digital marketing agency that provides Unilever holistic digital marketing solutions that include consulting, execution and analytics. It is also responsible for gathering and processing digital analytics data for Unilever from various online channels. (Koho 2015.)

3.4 Data collection and analysis

Empirical data for this research was collected through eight semi-structured interviews (table 3) and two digital analytics reports (table 4) provided courtesy of the case company. All interviews and reports were given in confidence, and as such, care has been taken to ensure the protection of both the case company's interests as well as those of the interview participants. The interview participants of this study represent various business units and areas of responsibility. The selection of the participants was primarily based on the preliminary interview with one of the interview participants. In the preliminary interview the topic of this research was discussed in broad terms, after which possible interview candidates were identified. The number of interview participants was limited by practical reasons: working time that could be allocated for interviewing and the preliminary interview participant's network of contacts. The interview participants' names were anonymised (hereinafter referred to as Person A, Person B, etc.) in order to ensure their statements' confidentiality and privacy. Table 3 below illustrates key background information on each participant.

Table 3 Information on the interview participants

Participant	Location	Lan-guage	Means	Duration	Main areas of responsibility (self-reported)
Person A	The Netherlands	English	Skype	45 min	Innovation development, coordinating multinational initiatives, supporting country-specific teams
Person B	The Netherlands	English	Skype	55 min	Defining the longer-term brand strategy on the European level, new product development
Person C	Sweden	English	Skype	62 min	Coaching the local team, defining business strategy on the local level, planning local strategy execution
Person D	Sweden	English	Skype	47 min	Gathering and developing consumer marketing insights, supporting other functions to solve problems
Person E	Finland	Finnish	In person	59 min	Coordinating Nordic e-commerce development, training and supporting colleagues on e-commerce
Person F	Finland	Finnish	In person	63 min	Strategic brand management at the local level, portfolio strategy, media planning, team leadership
Person G	Finland (P+SBD)	Finnish	Skype	53 min	Digital analytics, search engine optimisation, programmatic buying
Person H	Sweden (Mindshare)	English	Skype	49 min	Digital media strategy planning, coordinating the media buying process for digital media

According to Osborne (1990, 82), interview participants in a qualitative case study "should be people who have experienced and can illuminate the phenomenon". In this study, participants were selected based on their work experience, level of managerial responsibility, job function, and ascertainable role in relation to digital analytics. During the preliminary interview with Person F, all the participants shown in Table 3 were identified to be involved in digital analytics to some degree. Interview participants were chosen from various organisational levels and job functions. Person A and Person B work in the brand development function in the Netherlands. Persons C and F work in brand building within Sweden and Finland, respectively. Person D works in the consumer marketing insights (CMI) team, a support function that works with local teams in a cross-national capacity. Person E works in customer development, which is considered a sales function

within Unilever. The time worked with Unilever as well as the main areas of responsibility were drawn from the interviews themselves. In the beginning of each interview, participants were asked to describe what they considered as their main tasks or responsibilities in relation to Unilever. Instead of using a theoretical framework to classify the interviewees according to a fixed model of organisational hierarchy, the participants could give their own account of what they deemed relevant. In so doing, the context of each individual participant could be accounted for in more detail.

As shown in Table 3, Person G and Person H were employed by two roster agencies of Unilever: P+SBD and Mindshare. The rationale behind the choice to interview representatives of these agencies was to ensure that the whole process of knowledge integration could be adequately covered. In the preliminary interview, it was implied that these agencies were closely involved in the knowledge acquisition and assimilation stages. It was therefore deemed necessary to gain an agency perspective on the research topic.

The interviews were conducted on November and December of 2016. Most of the interviews were carried out in English. While this was not the participants' native language, it was the official working language of Unilever and the two agencies. Three of the interviews were conducted in Finnish. This was deemed appropriate, since the researcher and the three participants were all native speakers of Finnish, and using English would have likely created unnecessary tension and awkwardness. Translating the interview transcripts from Finnish to English was not seen as problematic, since the researcher has an excellent command of the English language through his academic studies.

As Eisenhardt (1989, 534–535) remarks, case studies generally combine several methods of data collection. Typically in business research, interview data is combined and compared with secondary data, i.e. data that already exist prior to the study, as a means of triangulation (Harris 2001, 193). In this study, the two digital analytics reports were used to supplement, reinforce or refute statements made by the interview participants. Table 4 below covers the two digital analytics reports that were used as secondary data sources for this study.

Table 4 Information on the digital analytics reports

Name	Description	Source
Messy learning campaign report (FI)	Campaign performance overview across different media, platforms and devices	External
Oven cleaning discussion report (UK & PT)	Research report on consumer online behaviour, interests and trends	Internal

Compared to the interviews, the two digital analytics reports served a somewhat lesser role in terms of generating research findings. The role of secondary data in this research

is to triangulate the findings drawn from the interview data rather than to generate new findings per se. The two digital analytics reports gave no contradictory evidence to refute the interview participants' statements. On the contrary, the reports gave added support to the key findings drawn from the interview data. For instance, the reports were instrumental in establishing the basis for the purpose-based classification of digital analytics (see section 4.4.2). While both two reports are undoubtedly representative of digital analytics, their content, structure and purpose were quite disparate, even with both reports being used by the same business function of the same company.

Having carried out all eight interviews and received the analytics reports, the researcher proceeded to data analysis. Typically, qualitative data analysis consists of the following two elements: data reduction and interpretation (Marshall & Rosman 2011, 209). During data reduction the data were organised into a more structured form so as to facilitate sense making and understanding. The researcher first wholly transcribed the interviews from digital recordings to a written form. These transcripts along with the digital analytics reports were then processed via a qualitative data analysis software program called NVivo.

Data analysis began with the coding of the data. The data were coded in two stages: open coding and axial coding (see e.g. Marshall & Rosman 2011, 209). The first stage involved identifying meanings from the data and assigning them names, i.e. codes (see Appendix 4). In the second stage, the codes were grouped together by shared characteristics or commonalities, forming axes. Following the two stages of coding, the relationships illustrated by the intersecting axes were clustered into larger groups based on shared similarities and differences of their attributes. According to Miles and Huberman (1994, 248–250), clustering enables a researcher to elevate the data to a higher level of abstraction, highlighting the degrees of similarity and dissimilarity between different codes. Finally, the clusters were examined and given appropriate names, resulting in themes.

Interpreting the results was done by drawing conclusions from and attempting to explain the issues that emerged from the data. Interpretation also meant evaluating the significance of the findings (Marshall & Rosman 2011, 219). The data were explored for content that was either mutually cumulative or incompatible. Moilanen and Räihä (2001, 62–63) caution against reading and reporting empirical data at face value, without delving deeper into the meta-level and contextual meanings behind the data. Failure to do so would result in descriptive analysis, yielding limited contributions as a result. Conversely, by comparing the empirical thematic content to prior theoretical research, these deeper meanings could be uncovered. With this in mind, the emerging themes drawn from the empirical data were explored for undertones and connections to broader constructs. This was done by analysing whether the new findings conformed to previous theory or not, and inferring the reasons why.

3.5 Validity and reliability

Validity and reliability are key issues in evaluating the rigour of academic research. Validity describes the accuracy and clarity of the findings. Reliability, on the other hand, refers to the degree of consistency and trustworthiness of the methods used for data collection and analysis. (Saunders & Lewis 2012, 127.) Hereinafter, the methods to ensure validity and reliability in this study are described using the model proposed by Appleton (1995, 995–997). He argues that these two dimensions are inadequate in the case of qualitative research, proposing instead a four-dimensioned model: truth value, applicability, consistency and neutrality. Truth value denotes a study's internal validity, and it is evaluated by comparing the findings with the data source; i.e. asking interview participants if they find the findings plausible. Applicability refers to external validity, and it describes how well the findings 'fit' other contexts, or how generalisable the findings are. Reliability is seen as the combination of consistency and neutrality. Consistency in a qualitative study is when the findings of the study and the empirical data are consistent with one another. Neutrality is achieved when the researcher explicitly and clearly states the 'decision trail', which he/she used to reach a conclusion, freeing the discussion from bias and allowing the reader to critically evaluate the underlying logic behind the conclusions.

The truth value of the findings was ensured by member checking; i.e. verifying the findings with the interview participants. Through member checking, it was established that the empirical findings were true and honest representations of reality within the case, and could then be subjected to further theoretical analysis. Before data collection, all interview participants were sent an email message with information on the research (Appendix 3); including the topic, themes, and practical issues of data collection and usage of quotations. This process of member checking addressed both the descriptive and interpretive validity, as proposed by Johnson (1997, 284–286), proving that the quotations and their interpretations were congruous with what the participants meant by their statements.

The external validity, or the applicability of qualitative research has historically been a subject of much debate (Smith 1984, 379–383; Payne & Williams 2005, 295–297). The rich, in-depth analysis of a qualitative research should 'fit' existing theory and lend itself well to recontextualisation, as noted by Appleton (1995, 996). To ensure the applicability of this study, biases and fallacies must be accounted for. Two sources of bias were identified to be especially pertinent. The topic of this study can seem complicated and technical, which can divert the researcher to over-emphasise certain interview participants' quotations over others on the grounds of a higher status or perceived level of expertise. This 'elite bias' is damaging to the analysis, as findings from less informed or lower status participants can prove equally important in supporting or refuting assumptions. A second possible source of bias is called 'constructing knowledge', where the researcher inadvertently affects the data by leading the interviewees to explain their thoughts in an otherwise

uncharacteristic way as a way in order to give a logical response to the researcher's questions. (Myers & Newman 2007, 5.) Furthermore, Appleton (1995, 996) cautions against drawing conclusions from the findings prematurely, as this can lead to a 'holistic fallacy'. To counter this, the interview data were repeatedly scanned for exceptions that would refute any assumptions. By highlighting these inconsistencies, the risk of this fallacy was alleviated.

The consistency and neutrality of the results was established using the three-method approach illustrated by Merriam (1995, 56):

- Triangulation
- Peer examination
- Decision trail

Triangulation refers to approaching the data from different angles to confirm new findings, e.g. by using multiple sources, researchers or methods of analysis. In this study, the digital analytics reports were the primary means of triangulation. The reports allowed the researcher to compare the two data sources and search for possible discrepancies. As this research was conducted as a Master's thesis, peer and supervisor feedback was an essential stage in the formulation of the finalised findings. The feedback allowed for an outsider perspective on the findings' plausibility in relation to the gathered data. To outline the decision trail, the researcher set out to explicate the underlying logic behind the findings by mirroring each finding against its respective interview quotations, essentially rooting his decisions in empirical evidence.

4 INTEGRATING DIGITAL ANALYTICS IN DECISION MAKING AT UNILEVER

In this chapter, the empirical findings are presented in the order of the three research questions presented in this study. The purpose of this chapter is to give an understanding of how digital analytics has been integrated in decision making at Unilever. By understanding the benefits and challenges that digital analytics has presented the case company, one can gain a deeper understanding into the potential and limitations of utilising digital analytics on a strategic level. In section 4.1, findings pertaining to marketing knowledge gained through digital analytics are presented in relation to the established dimensions of marketing knowledge (Figure 1). The findings that pertain to the use of digital analytics in generating marketing knowledge are covered in section 4.2. Finally, digital marketing knowledge use in strategic marketing decision making is covered in section 4.3.

4.1 Marketing knowledge gained through digital analytics

This section covers the empirical findings that are especially pertinent to research question 1: what kind of knowledge digital analytics adds to strategic marketing decision making. As established in chapter 2, marketing knowledge comprises four dimensions: customer, market, firm-specific and network knowledge. Of these four dimensions, the interview participants emphasised the importance of customer and market knowledge for Unilever in particular. The predominance of these two dimensions is quite understandable, considering that the company is operates in the FMCG market, with its sales and profitability depending largely on knowing their consumers' needs and what the competitors are doing. As Person B explains in the quotation below, Unilever has traditionally been adept in gathering and utilising customer and market knowledge.

> *I think that there is indeed a huge amount of knowledge around related to consumer habits, consumer understanding, generally speaking knowledge about product categories where we operate, and I think that Unilever is doing this well. On how to use and how to take learnings from that knowledge, to come up with some decisions, I believe this is something that Unilever does well, yes. […] One of our key sources of information in terms of consumer understanding comes from market data, which is the data sold by The Nielsen Company. [...] They are basically, however, just telling us what is currently happening in the market. It's giving us the trends, which are currently happening. […] (Person B)*

The interview participants acknowledged that while traditional methods of generating marketing knowledge, e.g. Nielsen household panels, had worked for Unilever in the past, digital analytics was opening new possibilities in terms of 'listening' on the interests, wants and needs of the consumers. Person B saw customer knowledge gained through digital analytics as an indispensible help for decisions concerning product and brand development:

> *So, it's really about trying to listen on the social media to what consumers are saying about a certain type of product for instance, and potentially then coming up with some needs or expressing some needs for new products that are not currently available. (Person B)*

In addition to generating new consumer insights, digital analytics presented Unilever with a new means of monitoring the competitive landscape. Person C describes in the quotation below a white space in the market that digital analytics had helped Unilever identify. Person G, on the other hand, saw digital analytics as way to gauge competitors' actions within the market by looking at certain analytics data that are open for any company to use.

> *And that wasn't a product that we had within our portfolio so this gave us an indication that this might be interesting to launch in the future [...] Until now we still haven't been able to close that gap, but I think it was an interesting way of understanding new opportunities within your market. (Person C)*

> *We can follow both the market situation as well as the actions of our customers online. [...] You should definitely be able to benchmark your actions, comparing them on what your competitors are doing. [...] Of course you don't get first-hand data but you can always use the metrics that are open for use. (Person G)*

The interview findings also presented evidence to support that digital analytics could yield new firm-specific knowledge that can be used to better understand one's own business. Person F felt that digital analytics had brought added guidance for designing new marketing campaigns by facilitating comparisons between different marketing campaigns campaigns and media investments:

> *It has brought new opportunities for optimising media investments, and we know that we can always develop our processes and become better in that area. [...] That too makes it important to have strong analytics and metrics*

> *in the background, enabling us to compare what kinds of campaigns work and which ones don't. (Person F)*

Moreover, the interview participants felt that a strong understanding of one's own business, along with its strategic goals and objectives, would be necessary to gain strategically relevant knowledge through digital analytics. As such, firm-specific knowledge in essence supports the generation of new marketing knowledge through digital analytics. Person B saw firm-specific knowledge as the essential business skills that enable the marketer to better understand the digital marketing knowledge in the company's own business context:

> *Good business and consumer understanding skills. This is not really specific to digital knowledge. But you know, to understand how to look at consumer trends, how to look at your own business development targets, identifying what are the levers to reach those business ambitions... So, all this is quite generic in terms of skills, but of course they need to be there. (Person B)*

Finally, digital analytics was not seen as a means to acquire new network knowledge per se. The interview participants actually saw it the other way around: networking with one's business partners could potentially benefit digital analytics by granting marketers a broader, network perspective. This is perhaps especially true in the case of Unilever: the firm lacks direct contact with its consumers, as the actual purchases happen mainly through online and offline retailers. As Person C mentions in the quotation below, gaining access to retailers' digital analytics data can be highly useful in understanding consumer behaviour.

> *Here we're doing a collaboration with a big media partner in Sweden. So this is also a partnership with them because they want to know how to drive FMCG brands through their different platforms. They have a site where private people can sell furniture, cars and whatnot. [...] Here we're also trying to see what kind of users are visiting their platforms. So if they search for a trolley, our brand banners could then convert them to purchase perfume-free detergent when they are in that shopping mode or searching baby clothes or what have you. (Person C)*

Even though digital analytics was found to yield customer and market knowledge similarly as conventional market research or a company's internal CRM database do, there

were profound differences as well. The interview participants saw that the digital marketing knowledge itself was somewhat different from what they had received previously through more conventional means. Based on the interview data, four key characteristics that are distinctive to digital marketing knowledge were identified. The interview participants saw digital marketing knowledge as particularly measurable, responsive, granular and observational in nature. These four characteristics are discussed in detail in the four following subsections.

4.1.1 Measurable

The interview participants believed that digital analytics presents new ways of measuring marketing activity and performance. Digital analytics enables measuring attributes that have previously been difficult, impractical or impossible to measure. Marketers make use of various digitised platforms through which they can access digital analytics data with ease. A marketing campaign can essentially be dissected into smaller units through a system of metrics, e.g. impressions. This in turn enables a meticulous, performance-based marketing approach on the operative level of marketing decision making. On a broader level, comparing and combining different metrics allows the marketer to draw conclusions that can serve as a basis for strategic marketing decisions. Person H saw that the measurability of digital marketing knowledge helped in comparing the effectiveness of different online marketing activities but also to determine their ROI:

> *As you know, with digital you can pretty much measure everything, so we have all the basic stuff, such as impressions, reach, frequency, viewability, time spent on page... We can look at the CPM levels for impressions we are buying and compare that to different CPM levels to see how we get the most value for our investment. So yeah, we can see pretty much everything. We get a lot of insights on what type of material is working. [...] We can now see the actual viewability of our ads, and that's a very interesting metric to look at. (Person H)*

Digital analytics allows marketers to measure a broad array of different attributes. Marketers can track the viewability and engagement of their messages in real time and compare the results to a benchmark to evaluate relative performance. Furthermore, digital analytics uses metrics that enable a comparative analysis over time due to the commensurability of the data: the data are cumulative and comparable across platforms and points in time. Person F contrasted this added measurability with how things had been in the past:

> *It has brought a lot of measurability to marketing. It has brought about the idea that you can really expect to see actual results with your metrics, as opposed to just hoping that after half a year you can see some uplift in the market shares. (Person F)*

The sheer amount of data that can be extracted through digital analytics is immense, but various analytics tools allow marketers to 'crunch' larger data sets together in order to gain precise, in-depth understanding of the issue at hand. However, in the absence of proper tools, resources and expertise, this can be a difficult undertaking. As Person E cautions below, the added measurability creates new problems in terms of selecting the right metrics to examine, the methods for analyse the data, and deciding what to do with the knowledge once it has been acquired.

> *[...] Digital analytics is such an endless sea or swamp that, first of all, we need to acquire the data pool and do the right kind of analysis that leads to added value and understanding... Another thing is taking the right steps: where to start and what's the next thing we want to know. [...] I believe that currently we don't have the capabilities, personnel or resources to do anything with this knowledge. It just disappears into the ether and just sits there. There are simply so many big priorities that we should just take a breather and start re-thinking how to approach the matter. (Person E)*

The measurability of digital marketing knowledge can be seen as a double-edged sword. On the one hand marketers can extract detailed data that can answer a specific problem or serve as decision support for a more strategic decision, but on the other hand gaining the required insights can be quite demanding on the organisation and the analyst. As Person E explains, a company will not be able to unleash the full potential of digital analytics unless they are willing to commit time and resources to develop its analytics capabilities. It stands to reason that as the sophistication of the analysis increases, so too does its level of difficulty and complexity. As the analyses grow more complex and technical in nature, it may become increasingly difficult to translate the findings into applicable knowledge. This further underlines the importance of the analyst's ability to identify and communicate the practical implications to the rest of the organisation.

4.1.2 Responsive

Responsiveness refers to how digital marketing knowledge is readily accessible and usable, with a relatively short downtime between action, measurement and interpretation. One of the key differentiating factors that was mentioned in the discussions is that digital marketing knowledge can be generated in real time. Digital analytics allows companies to measure and analyse digital marketing data continuously and at will, whereas conventional market research is conducted only intermittently and often at great cost. Person B below laments the fact that a third-party market research report that was released only once per year. By the time of its release, the data used in the research is already half a year old.

> *Where we can probably use more digital analytics is, for instance, getting short-term reactions to the launch of a new product. [...] The way that we usually do it, is that we need to wait again for the Nielsen data to be out, and try to read: does it have a good rotation, was the price okay, how is it doing in terms of distribution, etc. But this only comes 2–4 months after the launch, so it's difficult to react quickly enough. (Person B)*

As Person B notes, there is a marked difference between conventional market research and digital analytics in terms of downtime. If market research is used to gain an overview of the current state of affairs, digital analytics is seen as responsive and reactive in nature. Digital analytics allows the marketer to gain valuable market insights with far lower downtime than conventional market research at a relatively low cost. One interview participant reported that digital analytics is fundamentally changing how marketers plan and execute campaigns. Before the prevalence of digital analytics tools and platforms, marketers had to rely on market forecasts and data on prior performance to formulate a detailed plan that once set in motion could not be easily altered. Digital marketing knowledge can be gathered continuously before, during and after a campaign's activation to monitor its performance and respond to changes. Essentially, digital marketing knowledge has enhanced the transparency and responsiveness of marketing decision making. Person G highlights that the responsiveness of digital marketing knowledge allows marketers to quickly gauge what is working and what is not:

> *Often, especially in the case of big advertisers, decisions are based on the way things have always been done. Nowadays, you can pull all your knowledge together and find out the cause and effect on the data level. [...] You can even make strategic decisions based on this. If something simply isn't productive, then why continue it in the future? (Person G)*

While all knowledge can serve as a driver of change in an organisation, it seems that digital marketing knowledge is categorically different from 'conventional' market research in its form and frequency. Digital marketing knowledge is seen as continuous and responsive, as opposed to more conventional market research, which is intermittent and static. This responsiveness offers companies new potential in terms of continuously evaluating marketing performance and detecting minute changes in the market.

4.1.3 Granular

Digital marketing knowledge is drawn from data gathered through multiple small lenses: metrics. Examining a single attribute such as viewability through multiple metrics allows marketers to gain highly nuanced and detailed insights into their marketing performance. Multiple metrics also enable triangulation in the sense that positive or negative changes in a measured attribute can be verified by comparing similar but slightly different metrics, increasing the reliability of the findings. Person E used the term 'granularity' to underline how digital marketing knowledge is divisible into minute pieces of data drawn from a multitude of sources or 'streams'.

> *That granularity... If you compare digital with the traditional way of doing things: it's all been about shooting at it with a shotgun and hoping for a hit, but in the future we will see it dividing into smaller streams, and you will then have very targeted strategic... In a sense, you have to fine-tune your machine into a much deeper level. And that's what digital enables: you can dig deeper, and the company that has the best, most relevant ads, offering, service or content [...] that company wins in the market. (Person E)*

Digital marketing knowledge is also granular in terms of platforms used, be it an online social networking site, the company's own website or a search engine. In addition, digital analytics can differentiate users by the devise they use: a mobile device or a desktop computer. The ability to compare results across different platforms and devices allows marketers to gain useful insights into the behaviour of their target audience. As an example, the Messy learning campaign report highlights the fact that the target audience prefers to use mobile devices for information search on tough stain removal. The report illustrates the findings in great detail, showing the key performance indicators (KPI) for each specific banner, posting, video and other content over a set time period. As such, the broader

conclusions and implications shown in the report can be traced back to a very detailed body of data.

Digital analytics must compete with other business tasks of higher priority on the busy work schedule of a marketing manager. Managers responsible for digital marketing and analytics rarely have sufficient time or expertise to execute comprehensive analyses by themselves. These limitations drive companies to hire external agencies to carry out the in-depth analyses, leaving only rudimentary performance monitoring for the marketing manager. Some larger companies, such as Unilever, also employ a dedicated support function to coordinate digital analytics efforts. Person F saw that the granularity of digital marketing knowledge was changing digital marketing agency landscape.

> *On the digital side, even the know-how and expertise is starting to be very fragmented. We have our SEO/SEM agencies, we have our campaign agencies, and we have our web design agencies... There's so many niche specialists out there already. That being said, it'd be unfair to assume that everything would come from one big media agency whose core competency is in booking media as efficiently as possible across different channels. (Person F)*

Person F claimed that because the possibilities of digital analytics are so diverse in terms of what can be measured and how it is then analysed, digital analytics as a business activity has become fragmented across a multitude of niche agencies. The granularity of digital marketing knowledge creates a situation where the same body of data can be analysed in a myriad of ways. These niche agencies thrive by focusing on delivering highly specialised analytics solutions to answer specific client needs. As a company's digital analytics needs do become more elaborate, coordinating the network of different highly specialised agencies can become cumbersome for the client. Therefore, the granularity of digital marketing knowledge hold certain disadvantages as well.

4.1.4 Observational

A key characteristic of digital marketing knowledge is that it is based on observational data on actual consumer online behaviour. This is in contrast with conventional consumer research, where a researcher typically asks a pre-selected group of consumers a set of questions, leading to a more or less artificial setting. Several interview participants felt that digital analytics allows marketers to objectively 'listen' to what the consumers are saying online. The consumers' behaviour could be monitored and assessed without being

affected by the analyst's biases or restrictions. Digital marketing knowledge was contrasted with market research: the marketer constructs an artificial setting where consumers are asked to answer a series of questions. There was an underlying notion that digital marketing knowledge was somehow more authentic and representative of the consumers' beliefs, values, needs and wants. With digital analytics, the marketer can infer consumer insights from what they actually do, not what or how they respond to predefined questions. As the quotations below illustrate, the ability to gain unsolicited answers to questions was seen as a major benefit of digital analytics.

> *I think that we get data that is closer to the actual behaviour of our target audience or our users. We get an understanding of how they interact with our brands, what they find attractive, and how we can appeal to them stronger. [...] Because it's driven by behaviour, we can better understand our consumer's journey and interaction with our brands. And you get a lot of data to start with [...] basically you can do anything if you have the time and will to dig deeper. (Person C)*

> *As soon as I manipulate the context, it's not organic and not what was actually there in the first place. When I ask someone a question through a survey that's not something that they would not have naturally written. But if I make a Youtube video, and I can track the responses and how many people look at it, I would say that would then be digital analytics. [...] I kind of see digital analytics as more about something that is already out there rather than something that we force out of the user. (Person D)*

> *We can interact with a few consumers asking them what they think of this new product, but I think the better way indeed would be again to have more access to social listening on what everybody is saying online about a new product. (Person B)*

The above quotations illustrate that digital marketing knowledge is gained through monitoring rather than asking, which is fundamentally different from how market research is typically conducted. Conventional consumer research relies on the honesty and self-awareness of the research participants, whereas digital analytics is not similarly restricted. The key notion here is that surveys or interviews somehow 'force' the participant's answer to a mould, and as soon as a question is asked, the answer becomes less 'organic' in nature. It could be argued that digital marketing knowledge gives a more truthful representation of the consumer's reality than a conventional market research

would. However, as Person D explains below, the knowledge gained through digital analytics is not representative of the total population.

> *I must say personally that we always have to keep in mind that the data we get is not 100 per cent representative of general trends because we need to think of who is online, who is not online [...] and also what kind of people write, why do they write, because there's a lot of people [...] who write a lot, and there's people who don't write anything about it on social media, so the results we get when we analyse social media trends is very skewed. You always have to be questioning and be critically analysing the data you get. (Person D)*

The above quotation illustrates that digital marketing knowledge is only representative of the consumers that are active in an online community. The analysis of observed consumer behaviour is therefore limited to data that can be gathered online. Furthermore, digital analytics seems to be sensitive to more vocal users' online behaviour. If this is the case, then it is crucial to factor in this possible misrepresentation in the data by eliminating outliers in the digital analytics data before drawing conclusions. According to Person G, these limitations can be overcome in the future if companies manage to combine online and offline together under a single data management platform.

> *Of course you can a) over-analyse the data, and b) people act differently over the Internet. [...] Nowadays when advertising and marketing is run through different channels, you can run everything through one shared data management platform. [...] When we reach this beautiful goal of having all of our data under the same system and when the data can be processed regardless of the channel [...] then we can actually start to make informed decisions on a much bigger scale. (Person G)*

It would appear that digital analytics is best employed in combination with market research and other methods of gathering marketing knowledge. Digital marketing knowledge can serve as a method of verification for consumer or market research: marketers can search for similarities and discrepancies between voiced and monitored behaviour. In this sense, the observational nature of digital marketing knowledge is useful in strengthening the reliability of other customer knowledge that the company already uses. On the other hand, due to digital analytics' limited ability to infer consumer offline behaviour, this knowledge should be accompanied by focus groups, interviews and surveys focused on analysing offline behaviour.

4.2 Acquisition and assimilation of new knowledge through digital analytics

This section of findings pertains to the use of digital analytics in relation to marketing decision making. The findings revealed hereinafter are particularly pertinent to the research question 2: how companies can use digital analytics to generate marketing knowledge. In terms of the absorptive capacity framework used in this study, knowledge generation here refers to the acquisition and assimilation of knowledge. As it has been established in this research, to acquire knowledge is not enough in itself to effect change within an organisation: the assimilation of knowledge is an equally important stage of the knowledge generation process.

The interview data revealed that digital analytics is not a uniform concept, but in fact an umbrella term that encompasses a variety of analytics activities with different methods, platforms and objectives. It follows that different kinds of digital analytics must have different uses. The need arose for an evidence-based classification of digital analytics. The interview data were used as a basis for classifying digital analytics into definite subclasses along with their specific purposes. Based on the interview data, four such subclasses were identified: *performance analysis*, *attribution modelling*, *digital consumer research* and *trend forecasting*. As the methods and purposes of using the aforementioned four subclasses of digital analytics to acquire new knowledge were different, so too were their implications to knowledge assimilation. These implications for knowledge acquisition and assimilation in relation to the four digital analytics subclasses are discussed in detail, each in their respective subsection.

4.2.1 Performance analysis

Most interview participants saw digital analytics primarily as a means of continuously analysing the performance of an online marketing campaign. The interview data suggest that performance analysis can be used both tactically and strategically to develop a company's marketing communication. Tactical performance analysis is done during an ongoing marketing campaign. This continuous performance analysis allows a marketer to detect and react to any new developments related to the marketing campaign. Person F used the term 'sensor check' to describe this kind of analytics use. Strategic performance analysis occurs between marketing campaigns: it involves examining and comparing the performance data of entire marketing campaigns across different platforms to understand how different actions influenced the overall performance. This knowledge on campaign performance helps marketers to identify which assets and competences should be developed in the future, as noted by Person F below.

> *I would say that I basically follow it on a weekly basis, especially if we have an on-going campaign. [...] I use it as a sort of sensor check, and if it starts to seem like nothing is happening, then it's an indication that you have to go back to the campaign plan and check if the creative assets used are engaging enough—if they bring traffic or not. [...] It has also brought added credibility to the fact that communication has an important role, even if you can't see it instantly in the sales figures. [...] It's been really helpful marketing-wise to have real-time metrics you can follow and rely on when somebody challenges a marketing investment you've made, for example. You can prove that it has had an impact. (Person F)*

Person F claims that performance analysis helps to legitimise marketing investments, while also implying that this has been a challenge for Unilever's marketers in the past. Performance analysis enables a high degree of measurability and quantitative analysis, which can be helpful when communicating findings to colleagues working in other business functions. By yielding numerical data on consumer reactions to executed marketing campaigns, this type of analytics essentially generates customer knowledge as well as firm-specific knowledge for the marketer. Person H notes that prior firm-specific knowledge is key in the assimilation of new knowledge gained through performance analysis by contextualising the performance data:

> *We can see from the different types of metrics that we follow on a daily basis on what is not working and what is, and after that we use that in our next decision. [...] We are perhaps checking, what ads are delivering in Finland, and then comparing that to Sweden to see why there are these types of differences, how have they performed historically, why have the prices gone up, and so on. (Person H)*

From the above quotation, it can be inferred that firm-specific knowledge on historical performance in both online and offline marketing helps contextualise the performance analysis findings. Essentially, knowledge on the context of the marketing campaign allows the marketer to ascertain not only what has worked and what has not but also to ask the question: why. Overall, it is evident that performance analysis can be a powerful tool for both tactical and strategic purposes. In tactical decision making, performance analysis can help the marketer to decide which actions to take, and how to justify these actions to others. Performance analysis can also be used strategically to realign resources, to identify areas for improvement, and to sharpen objectives.

4.2.2 Attribution modelling

One distinct subclass covered during the interviews was attribution modelling. This kind of digital analytics involves attributing marketing performance to individual marketing activities. The interview data revealed that performance analysis when not accompanied with attribution modelling may lead to an over-emphasis on the marketing activities that take effect at the end of the consumer's path to purchase. Based on performance analysis alone, the marketer may feel encouraged to invest more heavily on the company website and under-invest in online display advertising in light of better conversion figures. However, it is rarely the case that the path to purchase begins on the company's own online retail website. As Person G explains in the quotation below, all too often marketers misconceive the roles that different marketing activities play in guiding consumers along the path to purchase, which in turn leads to suboptimal marketing investments.

> *You should definitely do attribution modelling and get the info on what affects what. [...] Often the conclusion is that "we are using three times as much money on display advertising so we need to drop it down and invest more on Google AdWords search engine advertising". [...] If we then pull out our display advertising and put everything in search engine advertising, which is more or less a kind of inbound sales, then we'll no longer get the same kinds of reach or awareness levels as we did before. Then we'll not get as much traffic to our online store. (Person G)*

Digital marketing professionals use the term 'last-click attribution fallacy' (see e.g. Mitra 2010; Pellman 2012) to describe this phenomenon. Attribution modelling counters this fallacy by establishing the roles and effects of distinct marketing activities in relation to the customer's eventual purchase decision. The underlying rationale of attribution modelling is that conversion of a visitor into a buyer is a gradual process; one that occurs through several touch points, e.g. search engine advertisements or website banners. Visitor refers to a person either seeking information or casually visiting a website, i.e. someone who has not yet made a purchase decision. Attribution modelling is used to assign values to different touch points depending on their estimated impact on the overall conversion. This allows the marketer to gain a holistic understanding of the marketing funnel in relation to the consumer journey, as depicted in Figure 6 below.

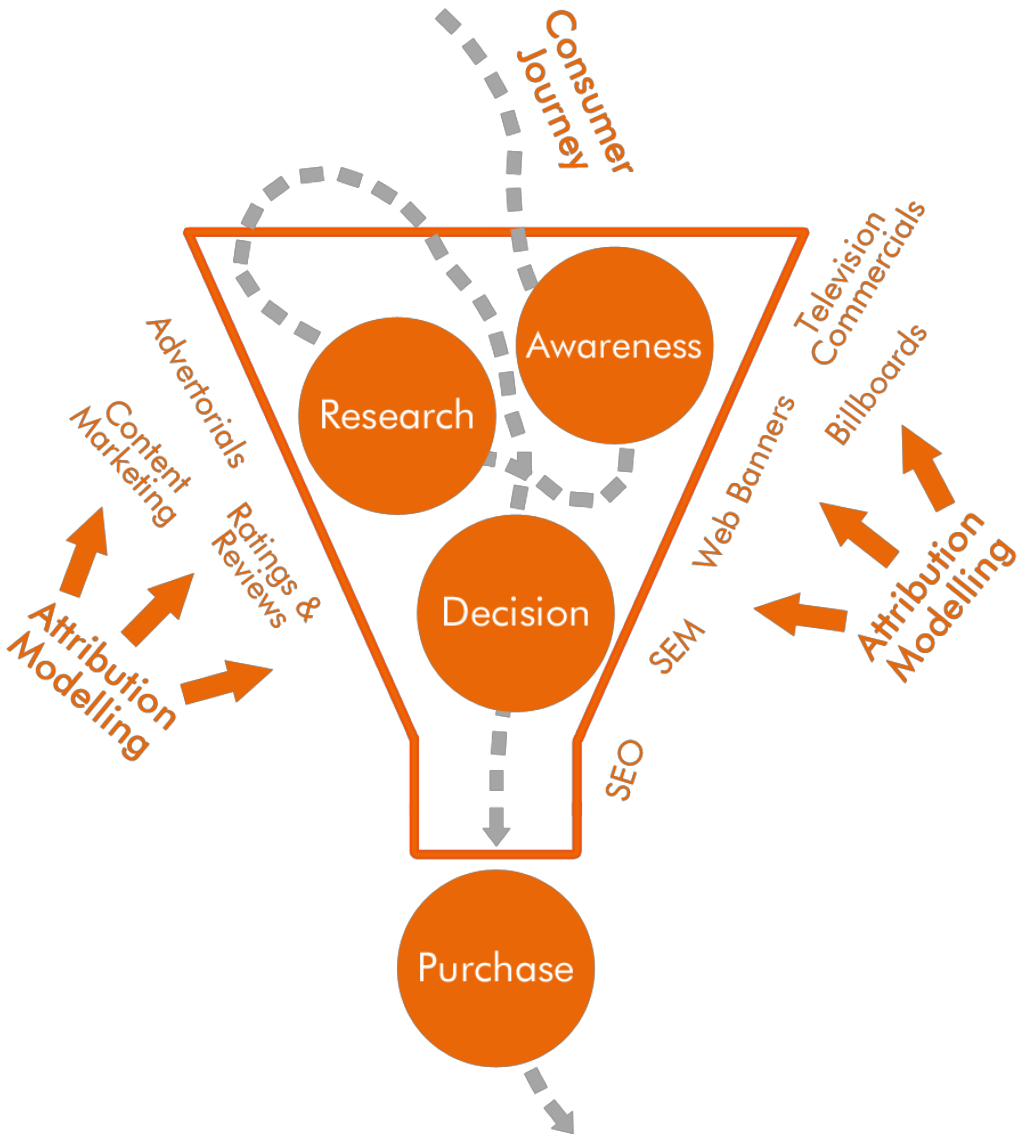

Figure 6 Attribution modelling within the marketing funnel (adapted from Jansen & Schuster 2011, 3)

The marketing funnel or buying funnel, as it is also known, is a commonly used tool in business and academia to illustrate the roles of different marketing methods along the consumer journey (Jansen & Schuster 2011, 2–4). Marketers use different methods of communication to guide potential customers along the four phases of the marketing funnel toward the eventual purchase. Examples of different marketing communication methods are shown in Figure 6. In the quotation below, Person G cautions against simply comparing conversion figures across different channels and platforms, stating that different communication methods occupy different phases of the marketing funnel and cannot be directly compared to one another in terms of conversion. While a web banner, for instance, may display low direct conversion figures compared to a search engine marketing campaign, it may be an important method in raising awareness for the brand.

> *If we look at search engine advertising and display advertising, and we want to know, which one brings us more traffic and gets us better metrics... Often search engine advertising is closer to conversion on the buying funnel. [...] Display, television or online video advertising works well as an awareness-raiser, but people who click on banners or watch TV commercials rarely decide to buy your product directly, whereas a person doing a Google search may already be really close to buying your product. (Person G)*

It can be inferred that attribution of marketing effectiveness would be impossible without some level of understanding on the consumer journey (Figure 6). Attribution modelling begins with first establishing these paths and then identifying the marketing activities that affect the consumer journey at its different stages: awareness, research, decision and purchase. As the above quotation reveals, attribution modelling may encompass both online and offline marketing activities. Disregarding traditional offline marketing channels as influencers of the consumer journey leads to an incomplete picture of the whole. As such, prior customer knowledge to some degree is required as a basis for attribution modelling. Understanding the complete consumer journey allows the marketer to develop the overall marketing mix to yield better results, as noted by Person B and Person E below:

> *The new consumer journey thought is really important: it's really about trying to understand within the life of the consumer, you know... when do they want to look for a new shampoo, how many touch points are there, where is the information that they will be looking at, how to communicate to that consumer of shampoo... And I think that this is a great piece of information. (Person B)*

> *In terms of digital, when you collaborate with your business partners throughout the funnel, you can get a better feel on what gets you what kinds of results. [...] It has definite value. The whole value of marketing, and understanding marketing performance... Yes, it helps, but getting from the beginning of the funnel to the end: that's the purpose. (Person E)*

As the above quotations suggest, the purpose of attribution modelling is to gain an understanding of how this system can be made to function better; how new consumers can be converted into paying customers and how existing customer journeys can be made

shorter. Therefore, attribution modelling yields knowledge on the different roles of marketing activities as well as the customer journey as a whole. Combining and sharing this knowledge with business partners helps marketers to construct a more complete picture, as noted by Person E above. In terms of the absorptive capacity framework, this suggests that assimilating new knowledge generated by attribution modelling benefits especially from prior customer knowledge and network knowledge.

4.2.3 Digital consumer research

There was a notion among the interview participants that digital analytics allows the marketer to conduct 'social listening' to gain observational data that can be used in a similar fashion as survey or focus group data would: to gain insights into consumer interests, desires, behaviour and needs. Why digital analytics is used in such way can be attributed to the observational nature of digital marketing knowledge, as evidenced by Person D's comment:

> *A lot of academic research in general shows that self-reported data is not very accurate, and so it's important for us to understand, which kinds of questions can we actually ask them. Like: "When did you last look at this website?" is not going to give us as good of an indication as cookies do. [...] People forget, some people will be ashamed of their behaviour: we can't ask people how often they eat ice cream. (Person D)*

Examining the 'Oven cleaning discussion report' provided by Unilever, the findings were indeed similar to those one could uncover through more conventional means of market or consumer research. The report reveals key insights on how consumers approach oven cleaning. By analysing online conversations and discussion patterns, the CMI team had learned about what kinds of tips and recommendations people share online, what desires the consumers may have concerning oven cleaning and what concerns or fears they may have. As a distinction from conventional consumer research, the data collection was not limited by a predefined sampling of participants. Instead, the sampling of digital consumer research is determined by key words and background variables, e.g. age group or geographical location. As is characteristic of digital analytics, this research used observational data on a relatively large scale: findings were drawn from over 10 000 mentions of certain key topics on several online social networking platforms. Person F saw that digital consumer research had allowed Unilever to gain new insights on their target audience as well as the market as a whole:

> *We do some research ourselves where we google things and go to online forums to get a feel on what the Finnish consumer thinks about laundry detergents, and how they discuss these online. [...] You can monitor social media to see whenever your brand is mentioned in some discussion. It gives you new kinds of consumer and market insights that we didn't have access to in the past. (Person F)*

The interview participants' comments and the 'Oven cleaning discussion report' reveal certain key benefits of utilising digital analytics to conduct consumer research. Mainly, as this kind of research relies on observational data, the researcher does not manipulate the samples by the wording or framing of questions. This kind of consumer research lends itself well for analysing phenomena that are difficult to ascertain through surveys or questionnaires, as the ice cream example illustrates. Furthermore, digital consumer research offers marketers the possibility of drawing data from an exceedingly large sample size in a cost-effective way. Once gathered, the data is already in a digital form that can be processed and analysed straightaway. Even with these new possibilities, digital consumer research was not seen as a standalone solution for market insights. The interview participants saw that conventional market and consumer research still offer significant benefits in terms of being able to control and focus the research setting to serve a definite agenda. Interview participants maintained that the best result is achieved when observational data from digital consumer research are combined with experimental data gathered through surveys, questionnaires, focus groups or interviews.

4.2.4 Trend forecasting

Several interview participants mentioned that they had used digital analytics to foresee and analyse future trends in consumer behaviour. According to the interview data, digital analytics can give marketers insights into how consumer behaviour and needs are likely to change in the near future. Trend forecasting is in essence digital consumer research that is focused on predicting future developments. Whereas consumer research is rooted in concrete observational data, trend forecasting relies in inductive reasoning to determine broad trends based on present day indicators. In trend forecasting, analytics data are scanned thoroughly for indicators of change. If there is a sudden change in people's behaviour online or if a particular topic begins to gain traction rapidly, this may be an indicator of a larger trend. Trend forecasting seeks to detect these indicators and induce a number of possible outcomes. Person B saw trend forecasting as a powerful tool for the purpose of product development in particular:

> *I think for me, one element would be related to trend spotting. So really trying to listen on the social media to what consumers are saying about a certain type of product for instance, and potentially then coming up with some needs or expressing some needs for some new products that are not currently available. (Person B)*

The above quotation reveals a crucial element of trend forecasting: the need to combine analytics with knowledge on the company's own capabilities and strategic objectives. As such, prior firm-specific knowledge appears to play a key role in conducting trend forecasting. Digital analytics alone may reveal indicators of change in consumer behaviour, but without sufficient firm-specific knowledge to complement these indicators, the company will not be able to identify the trends these indicators represent. Indicators drawn from digital analytics alone only tell the marketer that some kind of change is underway; it does not give the marketer a clear course of action. For this, the marketer needs experiential knowledge on the market as well as the company's resources, capabilities and goals. Combining all these insights allows the marketer to detect indicators, identify the trends they represent and determine their practical business implications. According to Person D, indicators can sometimes be misleading:

> *What we were thinking about is whether this is a trend or if this is a lifestyle. How would I explain it... Is it only a certain group of people who talk about it? Then that is considered a lifestyle; it doesn't mean that it is a trend. If the penetration—as we call it, the amount of people who are involved—is growing, then it's a trend. And we couldn't measure that. We couldn't track the quotes online to individuals or demographics. [...] It would then need to be connected to demographics. (Person D)*

What Person D implies in the above quotation is that a new lifestyle can be mistaken as an emerging trend. If a change in behaviour or opinion does not permeate other demographic groups, it is likely that the phenomenon in question is a new lifestyle rather than a trend. Conversely, if the change begins to spread to other groups of different age, socio-economical status, level of education, etc., it is indicative of a trend. Without this background knowledge on consumer behaviour and how the market functions as a whole, it is difficult for the marketer to differentiate between the two. Marketers should therefore attempt to compare trend indicators with prior customer and market knowledge so that it can be clearly established whether the 'penetration' of the phenomenon is growing or not.

The interviews revealed another challenge when conducting trend forecasting with digital analytics tools and method: the representativeness of the sampling. There was the

notion that online forums attract comments from exceptionally opinionated and vocal users. The interview participants also noted that there is a clear disparity in Internet use and online behaviour across different age groups. It may be, for instance, difficult to reliably gauge the opinions of 70 to 80 year-old men and women by analysing solely online analytics data. This issue of representativeness suggests yet again that digital analytics is best applied as a complement to other knowledge gathering techniques; it should not be used as a stand-alone solution to forecasting. Person D sees that digital analytics will gain importance in trend forecasting as companies become more adept in identifying the early indicators and sources of emerging trends:

> *It's better if we can track what people say and what they talk about. Especially, something that I think we're even trying to work out right now is: understanding where did the trends start. To understand what group of people are the trendsetters. Because, if we can do that, then we can catch the trend and get the innovations to match the trend before it's too late. (Person D)*

The above quotation illustrates that trends are a fleeting phenomenon, and consumer goods companies such as Unilever are trying their best to 'catch' these trends before they begin to wane. Based on the findings presented above, well-executed trend forecasting allows companies to foresee how their target consumers' needs and wants are likely to change and how markets are going to react to these changes. As such, trend forecasting may offer a strategic advantage to a company operating in a dynamic, rapidly changing market by providing customer and market knowledge pertaining to possible future developments.

4.3 Challenges for digital marketing knowledge transformation and exploitation

It has been clearly established previously in this chapter that digital analytics in its various forms presents new possibilities for marketing knowledge generation. As evidenced by the interview participants' responses, Unilever had been fairly successful in acquiring and assimilating new knowledge through digital analytics. For some reason, however, the interview participants felt that Unilever had not been able to exploit these new insights in its strategic decision making, as noted by Person G and Person E below.

> *We should definitely be able to a) on a strategic level... to base our decisions on analytics data and other data we have gathered, because nowadays we can crunch greater amounts of all different kinds of data compared to the past. But equally, we should be able to manage our real-time decisions based on data as well. (Person G)*

> *I believe that in many ways we should be able to react a lot quicker. [...] We don't really have the strategies or the competences to do this. On the other hand, we don't have a lot of domains to gather the data, other than by cooperating with our partners. [...] There hasn't yet been that much learning in terms of analytics. (Person E)*

In relation to the absorptive capacity framework, the above quotations indicate that Unilever had struggled mainly in the knowledge transformation phase of integrating digital analytics in its strategic decision making. Other interviewees saw that digital marketing knowledge had begun to disrupt the company's processes and forcing it to change its current ways of working. However, as mentioned by persons B and D below, it was not altogether clear as to how and what processes digital marketing knowledge would disrupt.

> *We are just about to learn how to apply it in our work. I feel like what's happening right now—we've just learned, now there's on-going discussions about how do we use this for our benefit, but there's not a lot of things that have changed or problems that we've solved. (Person D)*

> *That you have to wait for a campaign to end in order to figure out how well we did—it's a bit messed up right from the start. I'd like to see a bit more flexibility and agility so that we could really utilise the responsiveness a lot better than we are doing right now. [...] Now that you can see pretty much instantly if something isn't working, it makes you question your structure and processes in a sense that the current way is no longer the only way of working. [...] The ability to get it in real time, it's also creating a kind of pressure to always stay on top of things. (Person F)*

A company must have processes and structure in place that allows it to take advantage of such responsive knowledge. It can then be argued that digital marketing knowledge disrupts an organisation's processes through two mechanisms: form and substance. In essence, a company must first be able to process the form in order to access the substance of the knowledge. In the case of digital marketing knowledge this entails having sufficient

organisational dexterity to be able to respond quickly to the insights gained through digital analytics. Realising the usefulness of digital marketing knowledge drives the company to rethink and reconfigure its processes accordingly, leading to organisational change. As companies become more accustomed to utilising digital marketing knowledge, it follows that form itself becomes engrained in the standard ways of working and will no longer disrupt existing processes.

The interview participants had noticed a set of organisational challenges that stood in the way of exploiting digital marketing knowledge. These impediments were clustered together into broader themes that underpin how companies can use digital analytics to generate marketing knowledge. These themes in essence represent the prerequisites of strategic digital marketing knowledge use. The following four themes were identified:

- Organisational flexibility
- Employee training and support
- Data management platform
- Strategic commitment

The above themes are described individually in separate subsections. These four factors can be seen as impediments or challenges that a company must overcome in order to access the benefits of digital marketing knowledge. If these challenges are overcome, the company is well equipped to seize the strategic opportunities brought on by digital analytics.

4.3.1 Organisational flexibility

One challenge of digital marketing knowledge integration discussed during the interviews was that the organisational structure had not yet adapted to processing new kinds of marketing knowledge quickly and responsively. As mentioned previously, the marketing knowledge that the company had traditionally been using consisted of results of market research or retailer sales reports issued in regular intervals, perhaps once or twice a year. The company's processes and ways of working were structured around the regularity and uniformity of these reports. This traditional way of working had enabled a highly predictable knowledge flow within the company: budgets, forecasts and plans could be timed according to the issuance of these reports. However, digital analytics represented something altogether different. The knowledge flow from digital analytics is by nature continuous, responsive to online trends as they occur. In order to utilise this kind of knowledge, the company would need to be able to make intermittent adjustments to the budget, and marketing plan over the course of the year. The ability to realign key processes and structures flexibly is then one of the key determinants of a company's ability to utilise digital

analytics strategically. Person C saw that Unilever had recognised this challenge but had only begun implementing solutions to it.

> *I know that it's also a push that we need in order to become more agile and also to prepare for unplanned events. [...] Here we have not reached the end goal, so to speak. There's a big shift happening also in the way we are developing assets on a global level. And it takes time to shift processes but I definitely feel that we are recognising this across the whole marketing community, but we are not there yet. (Person C)*

The contrast between globally consolidated marketing plans and locally adapted execution was a recurring theme throughout the interviews. On the one hand the interviewees thought that global support and coordination is needed when designing large-scale advertisement campaigns, but on the other hand they claimed that digital marketing and analytics should be fully or partially tailored to local circumstances. In essence, global solutions meant access to greater resources but weaker responsiveness. While the interview participants acknowledged that digital marketing and analytics would benefit from the added resources and expertise, the ability to react quickly to new developments detected through digital analytics was given priority. A localised approach was deemed more suitable in the case of digital analytics, as explained by Person F:

> *We have an on-going global project on the matter. We are trying to build this consumer data center way of thinking. However, in order for the data to become so-called smart data, the analytics has to be really quick and agile. [...] I'm a bit sceptical as to whether global, centralised solutions are really the best model. [...] I believe that there are certain things that we can centralise but I also believe that we sometimes need a tailored, local solution. (Person F)*

Budgeting was seen as one of the key structural challenges in terms of organisational flexibility and responsiveness. A strict, annual budget was seen as one of the major obstacles to applying digital analytics findings to practice. For example, digital analytics may reveal that the target consumer group is significantly more active online, but spends little time watching television. However, if the media budget for the whole year is already set and cannot be reallocated, there is little that can be done. No matter how revelatory a new piece of knowledge may be, it may be difficult to act accordingly if the budget for the whole year is already set. In the light of this finding, companies should work toward increasing flexibility in their budgeting so that funds can be redirected in response to new market insights. As explained by Person H and Person F below, agile and responsive

budgeting is a key step in seizing the opportunities brought by digital marketing knowledge.

> *We're looking at the budget that Unilever has available for this year, and of course you have already done a split of the budget: how much is supposed to go to TV, how much goes to digital, and so forth. The budgets are more or less set on a very early stage. [...] We try to be as agile as we can within this structure. (Person H)*

> *I believe that there is still a lot of work to be done within our core processes, for example how we do our budgeting... We basically still plan our budgets 12 months ahead. [...] At least we have the opportunity to make adjustments here and there within a specific campaign. It's mostly about being active yourself, but yes, it is possible. (Person F)*

In addition to the issue of budgeting, several interview participants mentioned the formation of silos as a major impediment to digital marketing knowledge use, and knowledge management in general. According to the interviewees, digital analytics findings were discussed typically within team meetings if at all. Mostly, it seems, there was only a single brand or marketing manager accessing the findings. If these findings are not communicated to others, there is a risk that a knowledge silo will form. Person E noted that eliminating these knowledge silos had been recognised as a business priority, but that it was uncertain as to how this would be achieved in practice.

> *Knocking down these silos has recently been very much on the top of the agenda, which is frankly difficult in a big company that's set in it's old ways. There's been a lot of talk about it but we don't really have a clear solution yet. We're waiting to hear if we can get some guidelines from global or if we have to start thinking about solving this by ourselves. (Person E)*

There were several examples of how digital analytics had brought about new insights and learning, but that this had occurred mainly on a personal rather than an organisational level. When asked about how and where digital analytics findings are discussed, the interview participants explained that they were presented mainly in written form or small presentations between the local brand management team and the client lead from the digital marketing agency. Telling is the fact that three interview participants called for more knowledge sharing among colleagues. Person C in particular praised the usefulness of having access to best practices from other Nordic countries to see if they could be adapted

locally to achieve similar success. By facilitating cross-functional and cross-regional knowledge sharing, digital marketing knowledge that has become stuck within a silo can be drawn out and applied in a broader context.

> *Well, to start with, and this is something that we have talked about but maybe not done so much about, to start sharing the knowledge more within the Nordic brand teams. We are an advanced market and it's really interesting to learn from one another, because if it works in one Nordic country it will most likely work in another. [...] But I also believe that with the new global marketing setup there should be more knowledge shared. (Person C)*

The aforementioned examples reveal that organisational flexibility as a determinant of a company's ability to integrate digital analytics in its strategic decision making consists of elements related to both knowledge sharing and application into practice. The empirical findings suggest that organisational flexibility is topic of a broader discussion on knowledge management, and it has implications far beyond digital marketing knowledge use. However, the benefits of digital marketing knowledge are only accessible to companies that manage to align their structure and processes to accommodate the new knowledge. It can be argued that digital marketing knowledge is particularly sensitive to organisational rigidity, since it is by nature responsive and observational. The importance of organisational flexibility is therefore accentuated in the case of digital marketing knowledge.

4.3.2 Employee training and support

In spring 2016, Unilever had begun a company-wide strategic development campaign dubbed 'Connected for Growth'. One of the key areas of development was 'stepping up in digital', i.e. strengthening the company's digital marketing and analytics integration capacity. Following the launch of this campaign, all marketing personnel were assigned mandatory online training modules on digital marketing. Each of the six Unilever employees interviewed discussed these trainings to some degree. Employee training and support was seen as an important factor in how well an organisation manages to integrate digital analytics and digital marketing knowledge in its decision-making processes.

The digital marketing training modules of the 'Connected for Growth' campaign were generally well received. The interviewed Unilever employees felt that the trainings had been interesting and thought provoking. Since these modules had been assigned to specialists and upper managers alike, the topics of digital marketing and digital analytics

received much attention on different organisational levels. The interviewees used hopeful language when describing the possibilities brought by digital analytics. Two interviewees even went so far as to claim digital analytics as the 'Holy Grail' of marketing knowledge. It is likely that this prevailing positive attitude toward digital analytics was helping Unilever to embrace digital marketing knowledge and to adapt its processes accordingly.

The hope toward the possibilities of digital analytics was contrasted with doubts on whether the company had the capabilities to use digital analytics to its advantage. One major cause of doubts was the lack of necessary know-how to apply digital marketing knowledge to practice. Some participants saw digital analytics as complicated and difficult to comprehend. These interviewees felt that while the trainings were perceivably of good quality, they would not be able to gain practical insights through digital analytics that they could use in their daily work. Person A saw that the lack of practicality in the trainings made the content difficult to remember and to implement afterwards.

> *I don't know... Maybe it's because I'm not that aware of the methodology that is used to get all of this information. I think it's just a matter of education and changing habits. I'm not that aware of the methodology so I don't rely that much on this kind of information. [...] It was really interesting but at the same time there was a lot of information, a lot of technical information. But in our case, we don't use it in our daily work so I think it's kind of hard to remember everything. (Person A)*

Based on Person A's comments it can be inferred that a key impediment was the lack of perceived relevance. This may have been an issue related to the fact that the trainings were in the form of standardised digital training modules, where the ability to account for individual needs was limited. One possibility, as Person A claims, is that the content itself was seen as overly complicated or technical. The lack of prior knowledge on the topic meant that an employee had no point of reference around which to build an understanding of digital analytics. This in turn would make it difficult to memorize, let alone to apply the new knowledge into practice. Person F claimed that there was a certain 'mysticism' surrounding digital analytics that needed to be dispelled in order for digital marketing knowledge to become commonplace.

> *I would say... maybe by removing the mysticism, focusing on that. [...] The material has been incredibly good quality but there were 18 modules, all within a few of months of each other, and there was a ton of data and new information that you had to absorb. [...] We are asking our people for a huge capacity to absorb new information and at the same time we expect*

> *them to change their behaviour and ways of working. [...] We need to remove all this unnecessary technicality so that it becomes as easily approachable as possible. We should chop it down to small pieces that you can take in little by little and apply to your daily work. (Person F)*

The interview data suggest that an over-emphasis on technical skills can lead to digital analytics becoming disconnected from daily business tasks and goals. The above quotation suggests that Unilever may have been overly ambitious with both the content and execution of the trainings. The trainings seemingly focused on the technical aspects of digital marketing and analytics, leaving less emphasis on the practical business challenges or problems that digital analytics could help solve. Companies should support and train their employees on both the technical and the practical aspects of digital analytics. Otherwise the newly trained employees may still not understand the implications of digital analytics to their own line of work; they will know only the technical aspects of it, how it works and what it is. Companies should seek to de-mystify digital analytics by giving practical examples and showing how digital analytics can help employees to solve practical issues that they face in their daily work.

4.3.3 Data management platform

Whereas organisational flexibility and employee training are quite abstract in nature, the need for a well functioning data management platform is concrete and practical in comparison. According to Person G, a data management platform is an IT system that automatically collects and combines business data from different sources, allowing the user to make informed decisions and predict possible outcomes of these decisions. In this instance, dashboard was the colloquial term used for the user interface of a data management platform. As Person G explains, a data management platform may take various forms depending on the company.

> *You can manage strategic decisions using a data management platform, where a company's CRM data and, say, actual sales data and marketing data are driven into the same system. [...] Some bigger companies have really sophisticated data management platforms that drive marketing automation and produce sales leads, for example. (Person G)*

Some interview participants felt that digital analytics should be automatised to an extent, and that digital marketing knowledge should be readily accessible through a single platform, or 'dashboard'. The interviews revealed that constructing a data management

platform is an arduous and complicated task that carries wide strategic implications. As such, a data management platform is not simply a practical IT solution for knowledge management, but rather a strategic undertaking. Person F used the phrase "turning big data into smart data" to highlight that a data management platform is not merely an intersection of various data sources; its purpose is to reshape the way data are managed and used. Designing a data management platform may necessitate changes to how various kinds of business data are gathered and processed. The underlying logic is that data must first be made compatible with each other before it can be compiled into a single reservoir of business intelligence. The interviews highlighted that for a large multinational company such as Unilever, this is a laborious, strategic undertaking, as illustrated by the quotation below.

> *What I think is the challenge right now is to bring all these different sources together. [...] Because now it depends on whether or not I have the time to go through all the separate data sources and then try to figure out by myself if I should do this or that... I believe that here we have a lot of room for development. It's all about transforming—to use a cliché—big data into smart data. Now we just have a lot of data but we don't really have the capacity to use it in my opinion. (Person F)*

According Person F, time is the key driver behind the desire to build a multi-functional data management platform. The participants believed that a data management platform could drastically decrease working time spent for data collection and analysis. In freeing up working time for other tasks, a data management platform can essentially increase the organisational responsiveness. This could be especially beneficial in relation to the use of digital marketing knowledge in particular. The ability to respond quickly to new knowledge is crucial in unlocking the full potential of digital marketing knowledge. It follows that designing a globally coordinated, automatised platform that still enables a high degree of flexibility is a challenge for companies that seek to develop their digital analytics capacity.

4.3.4 Strategic commitment

Several interview participants spoke of a 'change of mindset' that was taking place in different organisational levels within Unilever. The 'Connected for Growth' campaign as whole represented a marked change of direction that Unilever sought to take. The upper management had shifted its priorities toward developing Unilever's knowledge management processes, as well as organisational agility and adaptability. Digital marketing and

analytics were seen as key activities to achieve these changes. As Person A mentions in the quotation below, this strategic commitment meant access to more time, personnel and resources for developing the company's digital analytics capacity.

> *Now with the Connected for Growth, they are really trying to step up in digital with all the trainings we have to do, and digital being at the top of the agenda. That was never the case before. So yes, I would say that it is about the company's decision that is now changing somehow. [...] This Connected for Growth means trying to adapt to new trends and being able to react quicker to competitors, etc. [...] Now, I think digital has become more important, digital assets are being developed more, and employed in more countries. (Person A)*

From what Person A states, it can be inferred that upper management commitment had acted as a trigger for the large-scale development of the company's digital analytics capacity. Digital analytics was seen as a crucial factor in achieving the company's new strategic goals. That digital analytics had been given a higher priority meant validation: employees felt encouraged to pursue the new opportunities for data collection and analysis. Being a priority area of development also meant access to more time and resources. The employees now had the validation and the means to develop their digital analytics skills.

Also of note is that the development of digital analytics capacity was seen mostly as a by-product of the increased upper management commitment in digital marketing. Some interview participants felt that digital analytics was still seen within Unilever as somehow subordinate to digital marketing. Indeed, much of digital analytics relies on the company being present and active within online platforms. Without digital marketing content, digital analytics would have limited access to analysable data. As a consequence, the training modules focused more on the marketing communication rather than data mining on various online platforms. The interview participants felt that while Unilever had managed to develop its digital marketing capacity, it had only begun to grasp the strategic possibilities of digital analytics.

As explained in section 4.2, integrating digital analytics in strategic decision making requires a shift in business thinking. The strategic commitment of Unilever to 'step up in digital' meant that it had to realign certain key structures and processes in order to adapt to the dynamic business environment within which the company is embedded. The interview participants contrasted the standardised, bulky, cumbersome business processes of the past with the agile, responsive and adaptive processes of the future. There was a sense of hope that developing new digitised processes and ways of working would drive the company forward. Person B saw that Unilever was undergoing a major change, and that this was disrupting the established processes and ways of working.

> *For me it comes, as I was explaining a bit earlier, as a change of mindset and change in our ways of working, and really grasping the benefit of this whole digital analytics and information that we can get through mobiles, etc. [...] So it's really about making sure that the marketing teams are grasping and embracing these new technologies and the wealth of knowledge that we now have available at our fingertips. [...] So I think that all the capabilities are there: skills are being built progressively. So now it's really about getting the change of mindset in the teams. (Person B)*

Person B highlights the importance of instilling the strategic commitment within the operational teams. As mentioned, the shift toward strategic digital analytics may require extensive restructuring and reconfiguring at the organisational level. In similar fashion, building digital analytics capacity on the personal level requires a 'change of mindset' inasmuch as developing the required skills and competences. This shift may occur simply through realising how digital analytics can help individual employees solve their daily challenges. Otherwise digital analytics may seem irrelevant or unapproachable to an individual. In essence, it is about understanding the relevance of digital analytics to the company as a whole as well as to oneself personally.

5 DISCUSSION

In this chapter, the empirical findings introduced in chapter 4 are discussed in relation to the theoretical framework established in chapter 2, structured around the three research questions of this study. The absorptive capacity theory was used as the theoretical underpinning of the background, data collection and discussion in this study. Overall, the theory served the research purpose well in creating a structured approach to digital analytics integration in strategic marketing decision making. The main benefit of an absorptive capacity approach was that in this framework knowledge generation is firmly linked with knowledge use. There was sufficient empirical data to comprehensively analyse and discuss most aspects pertaining to the framework, except for knowledge exploitation. It was revealed by the interview participants that Unilever had yet to fully exploit digital marketing knowledge in its strategic decision making. This shortcoming is somewhat remedied by the fact that the interview participants saw concrete potential for future exploitation.

5.1 Research question 1: What kind of knowledge does digital analytics add to strategic marketing decision making?

In section 2.1 it is established that marketing knowledge is the collective knowledge that a company possesses that pertains to marketing decisions. Drawing from prior theory, four dimensions of marketing knowledge have been uncovered: market knowledge, firm-specific knowledge, network knowledge and customer knowledge (Teece 2007, 1322–1326; Fernández et al. 2000, 82–85; Wilden & Gudergan 2015, 183–185). Customer knowledge, as noted by Davenport, Harris and Kohli (2001, 70–72.), is based on knowing what customers are buying, when they are buying it, and how and what for are they using the product or service. Digital marketing knowledge clearly offers relevant insights to answer these questions. The interview data gave consistent evidence supporting the statement that digital marketing knowledge can be used to supplement customer knowledge gained by analysing CRM data or conducting consumer research.

In addition to customer knowledge, digital marketing knowledge can supplement a company's market knowledge in the form of insights on the competitive landscape. As Kirca, Jayachandran and Bearden (2005, 25–27.) explain, market knowledge is gained by analysing the company's offering and market position in relation to competitors in order to determine new opportunities for growth. The interview data revealed that marketers can engage in 'social listening' to discover, which brands consumers favour and why. Data on online conversations and trends give marketers useful market insights that can be used

in product portfolio development and marketing planning, for example. While these insights may not be a direct substitute for formal market research, they can serve as supplementary market knowledge to offset the characteristically high downtime between market research reports. As noted by Wilden and Gudergan (2015, 183–185.), in turbulent markets, companies that succeed in gathering marketing knowledge efficiently and comprehensively, and then manage to combine it in innovative ways, will likely gain a competitive advantage. Digital marketing knowledge fulfils this role, as it is readily available and relatively inexpensive to acquire whenever needed.

Furthermore, digital marketing knowledge was found to be useful in generating firm-specific knowledge to enhance future marketing performance. As Rugman and Verbeke (2002, 771–775) underline, a company's competitive advantage relies on difficult-to-replicate set of resources that distinguish it apart from its competitors. Gaining a better understanding by measuring and comparing marketing campaign performance may over time lead to an accumulation of crucial firm-specific knowledge. Digital marketing knowledge may also answer the worries of Johannessen et al. (2001, 8–11) in terms of being readily available and responsive in nature. As such, digital marketing knowledge is relatively easily updated as circumstances change.

Even though digital marketing knowledge can be used to supplement customer or market knowledge, it was found to bear four distinct characteristics that set it apart from most other kinds of marketing knowledge: it is particularly measurable, responsive, granular and observational. Table 5 below describes certain benefits and challenges of the four identified key characteristics of digital marketing knowledge. The key characteristics of digital marketing knowledge carry profound implications for companies seeking to exploit it in its strategic decision making.

Table 5 Key characteristics of digital marketing knowledge

Key characteristic	Benefits	Challenges
Measurable	Ability to conduct detailed comparative analyses; ability to measure a wider range of attributes quantitatively and qualitatively	Communicating and applying highly technical findings into practice
Responsive	Enables detecting and adapting to changes in the market more quickly; on-going monitoring of performance from start to finish; low downtime between measurement and analysis	Designing adaptive and responsive organisational structure, processes and ways of working
Granular	Enables highly detailed and in-depth analyses; ability to detect minute details by comparing similar metrics	Coping with diverse data from multiple sources; coordinating a network of niche agencies
Observational	Possibility to gain objective insights into consumer behaviour without researcher bias; ability to compare voiced and monitored behaviour	Accounting for differences in online and offline behaviour; not all consumers are active online

The interview participants did not consider digital analytics as a replacement for conventional sources of marketing knowledge. Rather, it was seen as a new means of generating marketing knowledge, which can give rise to new business opportunities when combined with conventional forms of marketing knowledge. Digital marketing knowledge has its flaws and shortcomings, and conventional marketing knowledge is needed in order to overcome these. As such, combining digital marketing knowledge and conventional marketing knowledge is not only possible, but in fact necessary.

5.2 Research question 2: How can companies use digital analytics to generate marketing knowledge?

How digital analytics is can be used to generate new marketing knowledge was found to be profoundly different depending on the subclass of digital analytics in question. The term 'subclass' is used to denote that digital analytics in itself is a class of business analytics; customer analytics and financial analytics are other examples. The four discovered analytics subclasses (Figure 7) were: performance analysis, attribution modelling, digital consumer research and trend forecasting. In addition to their purpose, the four subclasses can be further divided by their methodological approach: explanatory and exploratory analytics. *Explanatory digital analytics* seek to yield useful insights as to how well the company's messages are impacting the target audience and how their reach could be improved. Another approach could be described as *exploratory digital analytics*, which sets out to map a previously unchartered area, e.g. the target group's behaviour, interests,

needs and likes. Exploratory analytics can lead to knowledge on what the target audience is talking about online and how.

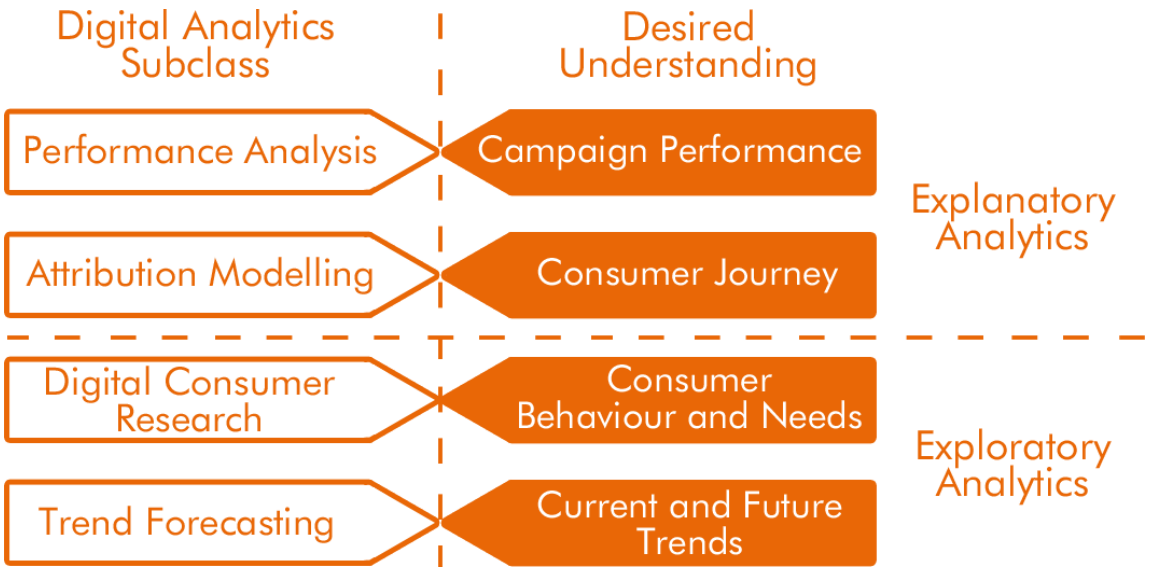

Figure 7 Digital analytics subclasses and purposes

Performance analysis refers to the continuous monitoring and analysis of online marketing campaign performance. This subclass of digital analytics seeks to understand how well an online marketing campaign performs in terms of metrics such as reach, penetration and engagement. In performance analysis, the marketer attempts to determine the effectiveness of an online marketing campaign by gathering and analysing data from the same platforms where the campaign has taken place, e.g. a search engine or an online social networking site. Having access to quantifiable performance data may help the marketer in calculating KPIs that compare marketing effectiveness to money or time spent, e.g. return on marketing (ROM) or return on advertising (ROA). This is an important strategic benefit of digital performance analysis, since marketing as a business function has traditionally suffered from the lack of measurability and quantifiability (Greenyer 2006, 239–241).

Attribution modelling, on the other hand, seeks to attribute marketing performance to specific activities both online and offline. Through attribution modelling a marketer seeks to understand how different marketing efforts align with the customer journey. Understanding the consumer journey allows the company to realign its marketing mix to maximise the desired impact on its target customers' behaviour. Attribution modelling is often used in concert with performance analysis to gain knowledge on where different marketing activities fall along the consumer or customer journey and how they each affect customer behaviour. In this sense, attribution modelling seeks to counteract the 'overattribution bias' during the data interpretation phase, as noted by Webster (1993, 261–262).

Through attribution modelling, marketers are able to understand the specific roles that different marketing activities play in guiding customers along their path to purchase. Moreover, by enabling a better understanding of how customers interact with the company's marketing communication, attribution modelling itself can be a powerful tool for generating customer knowledge. As Davenport, Harris and Kohli (2001, 70–72) explain, understanding how these interactions influence customer behaviour is a key aspect of customer knowledge.

The third subclass, digital consumer research, combines the scientific methods of conventional consumer research with digital analytics data. Instead of conducting a survey or a focus group study, data collected through an online search engine or a social networking site can be used to infer consumer behaviour, needs, wants and interests. The resulting insights can be used alongside other consumer research to serve strategic decision making. Digital analytics was praised but also criticised as a method for conducting consumer research. On the one hand, digital consumer research is accessible, responsive and relatively fast, and it allows the marketer to gain observational data on consumer behaviour in large quantities. However, the interview participants noted the difficulty of identifying relevant pieces of information among the large volumes of digital analytics data. As mentioned by Culotta and Cutler (2016, 344–346), the datasets gathered from online platforms are characteristically expansive and diverse, and as such, mining the data for useful insights is a particularly crucial stage of conducting digital consumer research.

These interview participants saw that relying solely on digital consumer research could be problematic, since certain demographic groups are more active online than others, and extreme views and opinions tend to receive more visibility online than indifferent ones. It was made clear that digital consumer research should be combined and compared with other consumer research. Kim (1997, 87) maintains that a company's ability to assimilate new knowledge is determined largely by its prior knowledge on the matter. As such, it can be argued that a company's prior customer knowledge determines the usefulness of digital consumer research to a large extent; it is not a stand-alone solution to customer knowledge.

The fourth subclass, trend forecasting, is aimed at identifying current and future trends by analysing which topics are receiving a lot of attention online and which ones are likely to gain even more traction in the near future. Trend forecasting is one of the key purposes of digital analytics, as well as marketing analytics in general (Hauser 2007, 40). As explained by Hogan, Lemon and Rust (2002, 9–10.), the ability to foresee and identify trends at an early stage is an important factor in a company's ability to respond to changing consumer needs and wants. This notion corresponds with the empirical findings of this study. However, as it stands, digital analytics as a method for forecasting trends has its limitations. By analysing online conversations alone, it can be difficult to discern broader

trends from lifestyles that a particular consumer segment follows. According to the interview participants, however, these limitations are likely overcome as more advanced analytics tools are developed and marketers become more adept at using them.

Based on the above discussion, the resulting knowledge of each of the identified digital analytics subclasses could be established. Table 6 below illustrates the new knowledge that can be acquired through the digital analytics subclasses. The table also contains the supporting prior existing knowledge that companies can use to facilitate the assimilation of the new knowledge gained through a particular analytics subclass.

Table 6 Marketing knowledge generation by analytics subclass

Type of analytics	**Type of newly gained knowledge**	**Supporting prior existing knowledge**
Performance analysis	C, F	F
Attribution modelling	C	C, N
Digital consumer research	C, M	C, M
Trend forecasting	C, M	C, F, M

Abbreviations: C = customer knowledge F = firm-specific knowledge
M = market knowledge N = network knowledge

As table 6 shows, digital analytics in all its forms is helpful in generating new customer knowledge. This is self-evident, since the data used by digital analytics is always based on observed data on people's online activities and behaviour. Performance analysis was also revealed to yield crucial insights for reinforcing the company's firm-specific knowledge, fostering the development of competitive advantages. Digital consumer research and trend forecasting were shown to yield knowledge as much on the target consumers as on the market landscape on a macroscopic level. As it has been established, digital marketing knowledge is best utilised when combined and compared with prior knowledge. In terms of supporting prior knowledge, two analytics subclasses stand out. Attribution modelling seems works best when the marketer has access to analytics data from suppliers and other business partners, so as to form a more holistic picture of the consumer journey. Trend forecasting, on the other hand, requires firm-specific knowledge so that future opportunities and threats can be better ascertained.

5.3 Research question 3: How can companies use digital marketing knowledge in strategic marketing decision making?

The empirical findings suggest that while Unilever had relatively diverse and plentiful digital marketing knowledge available to it, digital marketing knowledge was not being exploited fully on a strategic level. There was a general opinion among the interview participants that digital marketing knowledge offers untapped potential for strategic decision making, but that Unilever had not been successful in realising this potential. Piercy and Morgan (1994, 167–168) elaborate that strategic decisions are typically based on large quantities of diverse, in-depth knowledge, the kind of which digital marketing knowledge has been clearly shown to represent (see section 5.2). Therefore, the lack of exploitation has not likely been caused by the nature of digital marketing knowledge itself, but by some other factors.

Zahra and George (2002, 190) argue that knowledge becomes truly integrated only when transformation occurs within the knowledge and the recipient company's processes. This transformation of knowledge involves adaptation of organisational routines and processes, problem solving and conversion of knowledge, leading to organisational change. By all accounts, Unilever was still in the process of transforming its structures, routines and ways of working to accommodate digital marketing knowledge. This means that empirical evidence gathered for this case study on digital marketing knowledge exploitation was scarce and based mostly on conjecture. Nevertheless, the empirical evidence was more than sufficient to establish a comprehensive analysis on the challenges that a company faces in integrating digital analytics in its strategic marketing decision making.

The interview participants saw that there were certain organisational factors that had impeded the transformation of digital marketing knowledge, therefore denying Unilever the possibility to fully exploit digital marketing knowledge in its strategic decision making. Firstly, even though the significance and benefits of digital marketing knowledge were known, it is not possible to fully utilise it without sufficient organisational flexibility to mirror the responsiveness of digital marketing knowledge. Secondly, based on the interview data, the availability and quality of training on how to use digital analytics determines the extent to which digital marketing knowledge is able to disrupt existing routines and processes. Thirdly, a purposeful and well-designed data management platform was seen as a key element in how newly acquired digital marketing knowledge is accessed and put to use. Finally, as prior research has shown, a top-level strategic commitment is needed in order for knowledge transformation to fully take place (Workman, Homburg & Gruner 1998, 32–33). The interview participants had noted a profound change of direction as the company had adopted the new 'Connected for Growth' strategy that held digital marketing and analytics as one of its cornerstones. In essence, the new strategic emphasis

validated investing resources and time to develop processes and ways of working to take full advantage of digital marketing knowledge.

As Van den Bosch et al. (1999, 551–553) underline, the exploitation of knowledge requires that managers be able to identify practical issues and challenges where a given piece of knowledge can be of use. The empirical findings of this research appear to support this statement; the exploitation of digital marketing knowledge had been hindered by a) the lack of understanding of digital analytics and b) of the practical issues it could help solve. The findings of this study suggest that only by allowing for sufficient organisational flexibility, by providing their employees with adequate training and support, by developing a functional data management platform that enhances the accessibility of digital marketing knowledge, and by being strategically committed to developing its digital analytics capacity, a company is able to truly integrate digital analytics in its strategic decision making.

6 CONCLUSIONS

This study contributes to the extant literature on digital marketing and knowledge management in relation to strategic marketing decision making. Furthermore, this study carries with it certain managerial implications on how companies can implement digital analytics to support their strategic decision making in practice. An evaluation on the limitations and possibilities for further research is also presented in this chapter. These topics are covered in the subsections below.

6.1 Theoretical contributions

The main contribution of this study is to establish digital analytics as a business activity of strategic importance. As noted by Quinton and Simkin (2016, 5–6), prior to this study, there has been a pronounced gap in academic research between the tactical execution and strategic implications of digital analytics. The technical aspects of digital analytics have received a modest amount of attention within the field of IT research (Bucklin & Sismeiro 2009, 45), but the strategic potential and relevance of digital analytics had yet to be established. This study set out to close this gap by investigating how digital analytics can be integrated in strategic marketing decision making.

The work of Atanassova and Clark (2015, 168–171) on the benefits that social media analytics offer SMEs serves as the theoretical foundation of this research. Building on their use of the absorptive capacity theory in a social media marketing context, this study shows that digital analytics presents a range of possibilities in terms of strategic decision making, reaching beyond the online platform or channel from which the analytics data has been collected. Digital analytics is able to generate customer, market and firm-specific knowledge that can be used in strategic decisions regarding segmentation, positioning and product development, for instance. Previous research has shown that in turbulent markets, decision makers are pressed to make these decisions with haste, relying on market and consumer research that is constantly on the verge of obsolescence (Van den Bosch et al. 1999, 558–559). As such, companies like Unilever are looking into methods such as digital analytics to generate marketing knowledge more readily at a faster pace. This study serves as a signpost for further study on how digital analytics can answer these demands for fast and accessible marketing insights.

The conceptualisation of digital marketing knowledge as a distinct type of marketing knowledge is a significant theoretical contribution of this study. The empirical findings of this study suggest that digital marketing knowledge bears unique characteristics that complement customer and market knowledge generated through conventional means.

Digital marketing knowledge was found to be particularly measurable, responsive, granular and observational in nature. In essence, digital marketing knowledge presents a new way of 'sensing' developments in the business environment. As such, the conceptualisation of digital marketing knowledge is highly relevant for the frameworks proposed by Teece (2007, 1322–1326) and Fernández et al. (2000, 82–85). On a more general level, this conceptualisation contributes to research domain of knowledge management by highlighting the specific knowledge needs and implications of strategic marketing decision making.

The empirical findings of this study provide a basis for a purpose-based classification of digital analytics use. The purpose-based classification revealed that digital analytics is not a uniform concept but an umbrella term that encompasses a range of analytics activities, each with their unique properties and uses. This is a novel approach to classifying digital analytics in that previous attempts have focused mainly on the channel or platform rather than the purpose (Culotta & Cutler 2016, 344–346; Chaffey & Patron 2012, 30–37). Classifying digital analytics by purpose offers certain benefits to academia and business management alike. For one, as new communication technologies and platforms are developed, a purpose-based classification is less at risk of becoming obsolete. Moreover, a purpose-based classification places emphasis on the output and implications of the different analytics subclasses. This allows for a more detailed analysis on its usefulness in various decision-making contexts.

6.2 Managerial implications

This study shows that digital analytics represents new possibilities for marketing managers in terms of strategic decision making. Companies that successfully manage to integrate digital analytics in their strategic decision making are able to leverage both experimental market insights and observational data on human behaviour, leading to a range of possibilities. The ability to do so, however, is dependent on whether or not the company manages to overcome certain organisational challenges that impede the integration of this new kind of marketing knowledge. In the case of Unilever, the drive to overcome these obstacles came through a strategic imperative, a profound change of mindset that sought to disrupt existing processes and ways of working in favour of adapting them to a new era of digital marketing. Marketing managers hoping to reap the benefits offered by digital analytics should critically evaluate whether their company's structure and processes are compatible with the new kind of marketing knowledge. If change is needed, managers should understand what is required of the company so that they are fully committed to see the process of integration through.

The conceptualisation of digital marketing knowledge is of significance as much for marketers as it is for academic research. The distinctive characteristics of digital marketing knowledge offer various benefits to companies. While digital marketing knowledge was generally seen as a force of positive change, it was found digital marketing knowledge presents certain challenges for companies seeking to exploit it. For instance, the responsiveness of digital marketing knowledge is of little use to companies that are incapable of adjusting their organisational structure and process quickly enough to make use of new knowledge. Therefore, it stands to reason that by understanding the characteristics that differentiate digital marketing knowledge from other kinds of business knowledge this uncertainty can be mitigated. In order to access the full potential of digital marketing knowledge, companies should actively seek a better understanding of its particular characteristics so as to facilitate the integration of digital marketing knowledge in their decision-making processes.

This study reveals that there are profound differences in the methodology of data collection and analysis between digital analytics and conventional means of acquiring marketing knowledge. Whereas conventional market research is typically a laborious process relying on self-reported data gathered through surveys or interviews (Nilsson & Helgesson 2015, 19–30), digital analytics is based on analysing observational data on actual human behaviour (Chaffey & Patron 2012, 32–36). Digital analytics allows marketers to gather insights on a person's behaviour and needs without having to rely on the accuracy and truthfulness of that person's own account. However, this study found that digital analytics carries with it certain limitations that marketers should account for. Digital analytics is based on data on people's online activity, which may pose a challenge in terms of sampling representativeness, since not everyone is active online especially among the older populace. Moreover, there may be differences in people's behaviour online and offline that marketers should account for.

As this case study concerns a multinational consumer goods company, the results of this study are likely most relevant to firms catering to consumers. However, as it is shown by the empirical findings, business partner relationships play a crucial part in generating digital marketing knowledge. This is especially apparent in the case of attribution modelling, where network knowledge is essential in gaining a comprehensive picture of the consumer journey. Overall, this study provides managers with an overview of the different types of knowledge involved in knowledge acquisition and assimilation in relation to digital analytics. The key outtake is that digital marketing knowledge use thrives when it is combined and compared with diverse knowledge on the internal processes, goals and structure of the company as well as the external business environment.

Clearly, digital analytics presents new strategic opportunities for managers. Whether it is currently a viable option to pursue these opportunities or not is another question en-

tirely. As is typically the case with developing business competences and resources, becoming adept at utilising digital analytics may require extensive investments in terms of employee training and recruitment, software acquisition, etc. However, even with these investments a company may be incapable of utilising digital analytics strategically. It seems to require a different skillset altogether to be able to technically execute digital analytics and to understand the relevance and significance of the resulting findings. While the technical aspects of digital analytics are somewhat easy to outsource, as was the case with Unilever, in order to understand the practical relevance of the analytics findings, one must possess a comprehensive understanding of both the analytics and one's own business. Arguably, it is this second set of skills that companies should focus their trainings on rather than the technical execution. As such, companies would do well to give their employees training on how to utilise this new knowledge in practice by showing them concrete examples of its use and highlighting the kinds of problems that digital marketing knowledge can help them solve.

6.3 Limitations and further research

Qualitative single case studies such as this one are commonly seen as lacking a basis for scientific generalisation (Järvensivu & Törnroos 2010, 103). Indeed, drawing generalisable truths from a single real-life case would be precarious at the very least. This study illuminates the research topic within the context of a large multinational consumer goods company, and it is uncertain whether the findings of this study apply directly to other companies of different sizes, historical backgrounds, and operating in different industries. In order to ascertain whether the findings of this study are generalisable or not, it would be prudent to duplicate the research setting of this study to see if further research yields similar results. This could be done through recontextualisation, where a single case study using a similar framework and purpose would be applied to a case operating in a different industry or market (Kovács & Spens 2005, 138), or by conducting a multiple case study to examine the similarities and differences in how different companies approach digital analytics.

In addition to generalisability, another limitation arises from the time horizon of this study. According to Saunders and Lewis (2012, 123–124), cross-sectional studies such as this one are not viable for drawing definitive causal relationships between observed phenomena. The scope of study is limited in terms of establishing links between an activity and its results over the course of time. Therefore, further longitudinal research into the phenomena covered in this research is warranted. It would be prudent to investigate the effects of digital analytics training on its use and perceived value. By the same token, it would be interesting to determine if a change in the strategic mindset, represented by the

'Connected for Growth' campaign in this case, manages to drive positive change in terms of digital analytics use. A longitudinal evaluation of such a campaign could yield insights on how digital analytics can disrupt preexisting processes and ways of working over time.

The issues of generalisability and causality notwithstanding, this study does pose several interesting questions for further research. For one, expanding on the purpose-based analysis of digital analytics could yield valuable insights for both academics and managers. By better understanding both the possibilities and limitations of digital analytics, the utility of digital analytics could be increased. Another possible topic for further research would be to continue investigating the factors that affect a company's capacity to make use of digital analytics in its strategic decision making. These discoveries would undoubtedly be beneficial to anyone in charge of coordinating employee training programmes on digital marketing and analytics. Moreover, further research into the nature of digital marketing knowledge is warranted. It would be important to determine whether the four key characteristics presented in this study are generalisable to other cases. In addition, further research may reveal new distinctive characteristics that define digital marketing knowledge.

7 SUMMARY

This study set out *to investigate how companies can integrate digital analytics in their strategic marketing decision making*. Whereas prior research into digital analytics tends to concern the technical aspects of digital analytics, such as what metrics can be used and how they function, this study focuses on its strategic implications. The underlying notion is that by focusing on its strategic significance rather than technical execution, this study can help academics and managers alike to understand the full scope of possibilities that digital analytics has to offer. The findings of this study indeed suggest that digital analytics offers a range of possibilities in terms of supporting strategic marketing decision making. This study also highlights certain key challenges involved in the endeavour of seizing these possibilities. The stated research purpose was divided into three research questions:

- How does digital marketing knowledge relate to conventional marketing knowledge?
- How can companies use digital analytics to generate marketing knowledge?
- How can companies use digital marketing knowledge in strategic decision making?

Due to the relatively sparsely studied nature of the research topic, a robust theoretical framework had to be established. Existing literature on knowledge used in strategic marketing decision making and the absorptive capacity theory was used as a theoretical framework upon which the research setting was constructed. Drawing from academic literature, the absorptive capacity theory was selected as the knowledge management framework for this study, since it emphasises the dynamic nature of knowledge generation and use, lending itself well to the analysis of the research topic. Through a studious analysis of the extant literature, the analytical framework of this research was established. In this framework, absorptive capacity is depicted as a cyclical process that covers the process of knowledge integration from acquisition to exploitation, and digital analytics is then examined in relation to this cycle.

The research methodology was carefully selected to reflect the research purpose. A qualitative research approach was chosen for this study, since a profound understanding of digital analytics in a strategic decision-making context had yet to be established. In order to gain a comprehensive understanding of this phenomenon along with its contextual factors, a single case study was deemed the appropriate research strategy. The researcher of this study was able to conduct eight expert interviews within the case company, Unilever, and its two digital marketing agencies. The interviews along with secondary data from two digital analytics reports provided rich empirical findings on a real-life context of digital analytics use.

The interview data yielded surprising findings in terms of how diverse a concept digital analytics is, and how it can be used in different ways to answer different challenges in

strategic marketing decision making. Based on the findings, the researcher was able to conceptualise digital marketing knowledge as a special kind of marketing knowledge, distinct from conventional market or customer research. Furthermore, the findings showed that digital analytics should actually be seen as an umbrella term that encompasses a range of different analytics subclasses, each with its own purpose and methodology. The findings also gave insights into the organisational challenges and impediments to digital marketing knowledge use. The case company had faced obstacles in its organisational flexibility, employee training, data management and strategic commitment in its path to make use of the new knowledge generated by digital analytics in strategic decision making.

In relation to the first research question, digital marketing knowledge was found to cover aspects of customer and market knowledge. Digital marketing knowledge and conventional marketing knowledge were seen as mutually compatible, offering distinct insights that complement each other. To answer the second research question, knowledge generation through digital analytics was found to be largely dependent on the types of analytics used; for instance, attribution modelling and trend forecasting were found to yield quite disparate insights. As such, knowing in advance the knowledge needs of a particular decision is helpful in determining the appropriate means of analytics. As for the third research question, this research indicates that there are certain challenges in terms of organisational flexibility, employee training, data management and strategic commitment that must be overcome in order for digital marketing knowledge to become integrated in strategic decision-making processes. Furthermore, this study reveals that, in order to fully exploit digital marketing knowledge, a company must possess understanding on both the possibilities and limitations related to digital analytics as well as the practical business challenges where digital marketing knowledge can be put to use.

This study contributes to extant literature on digital analytics by breaching the gap between its tactical execution and strategic implications. This study continues the discussion begun by Atanassova and Clark (2015, 168–171) on analysing digital analytics through the lens of the absorptive capacity theory. Moreover, this research yields significant theoretical and managerial in the form of the conceptualisation of digital marketing knowledge as its distinctive type of knowledge. The purpose-based classification of digital analytics is similarly of importance for both academic research and business managers. These contributions and implications notwithstanding, this study presents opportunities for further research in terms of methodological choices. A multiple case study or a longitudinal time horizon using an otherwise similar research setting would go a long way to confirming, refuting or supplementing the results of this research.

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APPENDIX 1 EXAMPLE INTERVIEW QUESTIONS (UNILEVER)

Opening questions

1. Please describe briefly your areas of responsibility at Unilever.
2. How long have you been working at Unilever?
3. Do you consider digital marketing analytics to be relevant for the work that you do?

Theme 1: Knowledge needs of strategic marketing

4. Please give an example of a strategic marketing decision you were involved in.
5. What kind of information did you use as a basis for this decision?
    a. Did you use market research? Customer data? Past experiences/intuition?
6. Do you believe that you have access to all the knowledge that you needed for this decision?
    a. What kind of knowledge would have you required more of?
7. How does digital marketing knowledge differ from other marketing knowledge that you use?

Theme 2: Gaining knowledge through digital analytics

8. How often do you receive digital analytics findings?
9. In what form are the digital analytics findings presented?
    a. Written report? Meeting? Slideshow? Spreadsheet? Visualisations?
10. Do you consider it easy to understand the digital analytics findings that you receive?
    a. Why? / Why not?
11. Can you yourself ask for specific data and/or improvements to delivered data?

Theme 3: Processing digital marketing knowledge

12. How do you find combining digital marketing knowledge with knowledge from other sources?
    a. Is it difficult? Does it require time and effort?
13. Do you feel that you have adequate access to digital marketing knowledge?
    a. How could it be improved?
    b. Who (else) should have access to this knowledge?
14. Do you feel that you have enough support from Unilever to utilise digital marketing knowledge?

Theme 4: Digital marketing knowledge as a driver of organisational change

15. Has digital marketing knowledge made you question your own routines or processes?
    a. Why? / How?

16. How have you changed you own ways of working? Give an example.
17. Has digital marketing knowledge caused change in Unilever's processes and ways of working in general?
18. Please give an example of a problem that digital marketing knowledge has helped Unilever solve.

Theme 5: Benefits and challenges of using digital marketing knowledge

19. Is digital marketing knowledge beneficial for your own line of work?
    a. How is it beneficial? / Why isn't it beneficial? (Or is it even detrimental?)
20. Please give an example as to how digital marketing knowledge has benefitted Unilever.
21. Is Unilever currently taking full advantage of digital marketing knowledge?
    a. What do you think Unilever should do to better take advantage of digital marketing knowledge?

APPENDIX 2 EXAMPLE INTERVIEW QUESTIONS (AGENCIES)

Opening questions

1. Please describe company's relationship with Unilever?
2. How long have you been working with Unilever?
3. Do you consider digital marketing analytics to be useful for Unilever's business?

GENERAL QUESTIONS, NOT RELATED TO UNILEVER:

Theme 1: Knowledge needs of strategic marketing

4. What kinds of information does digital analytics provide?
    a. Market situation? Information on customers? Information on competitors?
5. What kind of knowledge does digital analytics offer for strategic decision making in marketing?
6. Please provide an example of how digital data can be used in some strategic marketing decision
7. How does digital marketing knowledge differ from other marketing knowledge? i.e. market/consumer research, CRM data, other kinds of big data, surveys...
8. Do you believe that digital analytics provides knowledge that is somehow unique?
    a. Please elaborate. How is it the same? / How is it unique?

Theme 2: Gaining knowledge through digital analytics

9. How do you mine digital marketing data for useful pieces of information?
10. How do you analyse the data? What kinds of tools do you use?
11. Please give an example of practical implications that your findings have yielded.
12. In what form do you usually present your findings?
    a. Written report? Meeting? Slideshow? Spreadsheet? Visualisations?

Theme 3: Processing digital marketing knowledge

13. How can digital marketing knowledge be combined with knowledge from other sources?
    b. Is it difficult? What skills/techniques can be used?

UNILEVER-SPECIFIC QUESTIONS:

Theme 4: Digital marketing knowledge as a driver of organisational change

14. Please give an example of a situation where digital marketing knowledge has caused Unilever or some other client to change its processes or routines?
    c. Why do you think they did this?
15. Please give an example of a problem that digital marketing knowledge has helped Unilever or some other client company solve?

Theme 5: Benefits and challenges of using digital marketing knowledge

16. What do you consider as the main benefits of digital analytics for decision making?
17. Do you believe that Unilever has benefitted from digital analytics? How?
18. Do you feel that Unilever is currently taking full advantage of digital marketing knowledge?
    d. What do you think Unilever should do to better take advantage of digital marketing knowledge?

APPENDIX 3 PRE-INTERVIEW EMAIL

Hi <name of participant>,

Thank you again for giving me the opportunity to interview you for my thesis later today. Here is some additional information on the interview and its use in my thesis:

During the interview
- The interview lasts approximately 1 hour and does not require any preparation whatsoever; simply give answers based on your own experience and opinion
- The interview will be conducted by Skype, so please go to a silent room or a quiet space beforehand
- During the interview the following themes will be covered:
1. Knowledge needs of strategic marketing
2. Gaining knowledge through digital analytics
3. Processing digital marketing knowledge
4. Change fuelled by digital analytics
5. Value of digital analytics for strategic decision making
- This is a semi-structured interview so this does not need to follow a strict structure; please feel free to speak your mind

After the interview
- All answers will be processed anonymously: in the thesis I will use Person A, Person B, etc. to differentiate answers
- I will send all of your quotes that I plan to use to you by email for your approval/modifications before printing the thesis
- The interview itself is confidential, and I will not disclose the interview material to anyone (except for the actual quotes in the thesis)
- If at any point during the interview you feel the need to stop, redact an earlier statement or ask a question, feel free to do so

Thanks again for your help,

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APPENDIX 4 OPEN CODES

Nodes	Number of coding references	Aggregate number of codi…	Number of items coded	Aggregate number of items c…
Nodes\\Attribution of effects	13	13	2	2
Nodes\\Challenges of digital analytics	27	27	6	6
Nodes\\Change of mindset	12	12	5	5
Nodes\\Changing consumer beha…	17	17	6	6
Nodes\\Changing consumer needs	5	5	2	2
Nodes\\Combining knowledge	30	30	7	7
Nodes\\Consumer journey	12	12	3	3
Nodes\\Consumer research	15	15	5	5
Nodes\\Content	10	10	2	2
Nodes\\Definition of digital analytics	4	4	3	3
Nodes\\Digital analytics capabilities	14	14	4	4
Nodes\\Digital analytics goals & o…	20	20	6	6
Nodes\\Digital analytics presentation	8	8	5	5
Nodes\\Digital analytics reliability	3	3	3	3
Nodes\\Digital analytics use	47	47	8	8
Nodes\\Digital marketing capabilities	8	8	4	4
Nodes\\Digital marketing knowled…	22	22	6	6
Nodes\\Digital marketing perform…	14	14	4	4
Nodes\\Doubts & uncertainty	25	25	7	7
Nodes\\e-commerce	8	8	3	3
Nodes\\Europe or Global	9	9	5	5
Nodes\\Fragmenting & granularity…	5	5	3	3
Nodes\\Hope for future	22	22	8	8
Nodes\\Interactiveness	3	3	1	1
Nodes\\Intuition	1	1	1	1
Nodes\\Job responsibilities	14	14	8	8
Nodes\\Knowledge needs	9	9	5	5
Nodes\\Knowledge use	9	9	3	3
Nodes\\Learning from others	4	4	2	2
Nodes\\Low interest implications	5	5	2	2
Nodes\\Market research	4	4	2	2

Nodes\\Measurability	1	1	1	1
Nodes\\Need for development	45	45	8	8
Nodes\\Networking with business…	14	14	6	6
Nodes\\New potential brought by…	41	41	6	6
Nodes\\Nordics or local	9	9	5	5
Nodes\\Organisational change	25	25	8	8
Nodes\\Organisational goals & ob…	5	5	3	3
Nodes\\Paid, owned, earned	6	6	1	1
Nodes\\Product category	8	8	4	4
Nodes\\Reasons for doubts and u…	2	2	1	1
Nodes\\References to other functions	14	14	3	3
Nodes\\References to the past	15	15	7	7
Nodes\\Responsiveness	14	14	3	3
Nodes\\Silo mentality	9	9	2	2
Nodes\\Sources of knowledge	3	3	1	1
Nodes\\Strategic decision making	13	13	5	5
Nodes\\Tailorability	3	3	1	1
Nodes\\Time with Unilever	8	8	7	7
Nodes\\Timing	3	3	1	1
Nodes\\Training and support	21	21	6	6
Nodes\\Trends	13	13	3	3