

# UNIVERSITY OF GOTHENBURG SCHOOL OF BUSINESS, ECONOMICS AND LAW

Diffusion of digital asset management systems in the Norwegian food and grocery market.

A single case study of MyBrand Media

Maral Javadzadeh Tabatabaee

Graduate school

Master of science in Knowledge-Based Entrepreneurship

Supervisor: Ethan Gifford

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Written by Maral Javadzadeh Tabatabaee

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SCHOOL OF BUSINESS, ECONOMICS AND LAW, UNIVERSITY OF GOTHENBURG

Vasagatan 1, P.O. Box 600

SE 405 30 Göteborg, Sweden

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Contact: Maral.javadzade@gmail.com

# **Abstract**

Digital asset management systems as a solution for managing digital content has been gaining attention over the last years and more IT providers are offering digital asset management systems to organizations. However, the decision to adopt this solution in a client-organization is influenced by many factors, making it a challenging and time taking process. Moreover, no technology is diffused the same, nor is it adopted the same in different markets. As a result, this master thesis tries to present an overview of diffusion of digital asset management systems in the Norwegian food and grocery market, its challenges and recommendations to improve the adoption rate of these systems in this market.

This research adopts Innovation-Decision Process from diffusion of innovation theory from Rogers (2003) and combines it with the technology acceptance model from Davis (1989) and utilizes the new model as the framework to study the process of making a decision in adoption of new technology in the Norwegian food and grocery market. For that purpose, a qualitative research method through semi-structured interviews with food and grocery suppliers and distributors as well as managers in the digital asset management provider was chosen.

The finding of this research indicates that diffusion of digital asset management in this market depends on the decision unit's characteristics, internal IT team, the digital presence strategy, perceived value and usefulness of innovation in the client-organization on one hand. On the other hand, it is the innovation characteristics including observability and relative advantages, in addition to the proper use of communication channels as well as the support, trust and value proposition of the innovation providers that is influencing the Innovation-Decision Process in this context.

**Keywords**: Digital asset management, diffusion of innovation, technology acceptance model, the Norwegian food and grocery market, value, value proposition, perceived value.

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I am happy to publish this master thesis as I am in a special phase of my life that I am a first

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# 1. Introduction

# 1.1. Background and motivation

Nowadays, enterprises have understood the importance of digital presence for their brand awareness, customer acquisition and loyalty. Hence, the amount of digital content being created, published and exchanged in online platforms are increasing not only in the amount but in size and quality which brings the need for storing and bandwidth of these materials (Krishna 2009). This digital content has become a valuable asset for businesses in generating revenue and improving their performance (IBM, n.d.-a). Therefore, companies pay photographers, videographers, content creators and social media specialists in order to increase their visibility, gain more attention and eventually raise sales through effective presence on social and e-commerce platforms. To ensure that the expenses paid for creating digital media are not wasted, organizations need to preserve, securely share, retrieve, reuse, and store these assets. For that reason, digital asset management (DAM) solutions have emerged.

In 2020, the digital asset management market was worth USD 2.9 billion. Analysts predict that it will grow at a compound annual growth rate (CAGR) of 18.46 between 2020 and 2026, reaching a total value of USD 8.1 billion. As a result of the expected growing market, more software providers are creating and offering DAM solutions and have centered their focus on attracting customers (Research and Markets, n.d.). Although gaining more users in lower time is an ideal achievement, the process of acquiring customers for a newly built solution is a lengthy procedure influenced by various factors (Rogers, 2003). Rogers (2003) in his theory of diffusion of innovation (DOI) explains the procedure through which an innovation is developed and is adopted in both the individual and organizational levels.

Diffusion of innovations framework (DOI) has been used since its publication to explain adoption of E-commerce, E-business, intranet and websites (Oliveira & Martins, 2011). DOI framework is widely used in answering the questions about how and why new ideas and technology spread and which communications channels are used to engage more customers through social systems (Khasawneh, 2008).

While DOI explains the adoption of technology on a firm level, it also emphasizes the role of individual decision makers within the organizations and the influence their attitude toward change can make on the organizational adoption of a new innovation (Oliveira & Martins, 2011). As a result, this research combines the Innovation-Decision Process from DOI with technology acceptance model (TAM) from Davis (1989) to investigate how a DAM system can diffuse and obtain more users in the Norwegian food and grocery market (FGM).

# 1.2. Empirical context

Digital asset management, since its emergence, has shown a positive role in different industries. For instance, DAM systems have shown to have potential advantages in photography businesses by adding value to the photographer's job through efficient tagging, categorizing and finability (Krogh, 2005). Moreover, they have made it possible for the construction industry to cost efficiently improve the automation of maintenance management tasks (Cecconi et al., 2020). In the gaming industry, DAM is entitled to act as a project management tool which shifts the employees focus from organizing tasks to performing them (Jacobsen et al., 2005). Radiology industry also tends to benefit from DAM solutions in preserving radiographs and centralization of them where surgeons and other associates could use or share radiographs internally and externally (Gomoll & Thornhill, 2004).

In general, DAM's benefits have been shown in reducing the time employees spend searching for necessary data and freeing up their time for more strategic tasks or innovation. By that, DAM allows employees to use their skills and knowledge more efficiently to support the company's growth plans (Roszkiewicz, 2010; Kollmorgen, 2005). Industry reports suggest that with DAM, employees spend less time transferring, reorganizing, finding, and tracking files, which were traditionally done through asking colleagues or partners, searching email inboxes, or chat repositories (Leland, 2000; Krishna, 2009).

Adopting DAM solutions can also optimize workflows and reduce marketing campaign process time. Marketing campaigns involve several internal and external departments that can lead to increased process time and communication complexities, which can be streamlined with better communication and synchronous access to digital media (Roszkiewicz, 2010, Kovács, 2004). Hence digital asset management systems can help firms to gain a competitive advantage by allowing for quicker exchange and publishing of marketing materials, rather than relying on traditional methods (Kollmorgen, 2005; van Niekerk, 2007).

Organizations can also utilize DAM as a Digital Media Rapid Response Center (DMRRC) to centralize a company's intelligence and effectively respond to both daily and acute occasions. This enables businesses to protect their reputation by responding quickly on all platforms, including social media, press, and websites. The DMRRC concept shifts organizations from traditional crisis management to a digitally savvy team that can contribute to educating colleagues, provide stakeholders with necessary documentation, images, statements, and press articles for decision making and proper reacting. Correctly reacting to crises and challenges in digital platforms positively impacts a business's reputation, which influences its profitability and image (Lipsey, 2010).

Eventually, As a business expands, communication and information sharing become more challenging, leading to the creation of data silos where data is produced, used, and stored independently in various departments or groups (Mathieu, 2021). Mathieu's study in 2021 revealed that most employees store information on local repositories, leading to challenges in enterprise-wide accessibility of information. This habit of storing assets on local respiratory systems can cause duplication of efforts, multiple versions of the same media, and increased costs. DAM as a comprehensive management system enables flow and organization-wide access to all people of all departments to address these challenges.

# 1.3. Case company and service

The case company of this master thesis is Tradesolution AS and the service they have developed is called MyBrand Media. Tradesolution was founded in 1994 to provide industry specific IT solutions to respond to the market needs of the Norwegian food and grocery market

(Proff, n.d.-a; Tradesolution, n.d.-a). At the beginning, Tradesolution was formed in order to create standards, image quality control services and efficient data sharing in the industry. Today, Tradesolution offers different IT services such as supply chain management, customer relation management and digital content management systems including MediaStore which is the branch's archive for storing product photos and MyBrand Media (Tradesolution, n.d.-b). MyBrand Media is a digital asset management solution created by Tradesolution AS as an add-on to MediaStore (Tradesolution, n.d.-c). Today, MediaStore has been adopted by more than half of the industry (Tradesolution, n.d.-d). However, its add-on service, MyBrand Media has been experiencing a low adoption rate since its emergence. According to Tradesolution's managers, among the total of 1300 food and grocery suppliers and 100 anticipated potential customers for this system, only 13 have subscribed to it over the past few years. As a result of low adoption rate of MyBrand Media and its rejection by Norwegian food and grocery suppliers, Tradesolution has raised the concern to look into the possible strategies for diffusing

# 1.4. Purpose and research question

it successfully.

MyBrand Media is an idea which has gone through need recognition, research, development and has been commercialized. Now it is a new service provided by Tradesolution and is a new concept for many companies and the market. Hence, according to Rogers' definition of Innovation as "an idea, practice, or object that is perceived as new by an individual or another unit of adoption" (Rogers, 2003, p.22), we know it as an innovation.

At the innovation provider unit, an innovation has to go through several steps to be created and diffused. Innovation provider unit, firstly feels the need or recognizes the problem in the market, secondly does the basic research and market analysis, thirdly develops a solution and fourthly commercializes it as a ready to sell package of results and values (Rogers, 2003). Afterwards is the step to diffuse it to a wide audience enabling its adoption. This, however, needs significant consideration. Mainly because the organization wants to diffuse it as soon as

possible to acquire customers but also doesn't want to risk its reputation and propose values which won't be perceived as such in the customer's eye (Rogers, 2003).

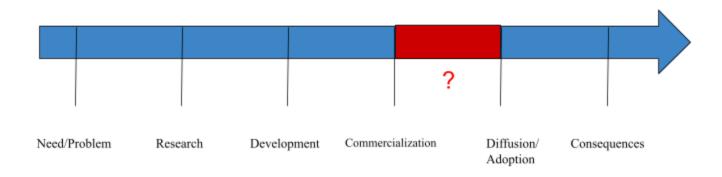


Figure 1. Rogers (2003). *Innovation-Development Process*. Modified for this master thesis indicating the problem. Illustrated by the author.

MyBrand Media as an innovation is standing on its most crucial stage where it needs to be diffused widely and despite some attempts, it has failed to reach a broad audience. Hence, Tradesolution has gone through rebranding MyBrand Media and has found it important to consider what strategies and steps they can take in order to properly diffuse, increase the adoption rate and improve MyBrand Media's acceptance in the market.

For that purpose, this research paper tries to figure out what has been hindering the diffusion of MyBrand Media, what values lay within the adoption of MyBrand Media from IT supplier and client-organizations' perspectives and what are possible recommendations for Tradesolution in order to successfully gain more customers for this service. Therefore, the research question and sub questions will be as follows;

- 1. What has hindered Tradesolution to gain more customers for MyBrand Media until today?
- 2. What are the values of MyBrand Media for the Norwegian businesses in the food and grocery industry from the IT supplier and client-organization's perspective?

#### 3. How can Tradesolution as the supplier of MyBrand Media gain more customers?

For answering research questions, I have conducted interviews with managers in Tradesolution to firstly figure out what has been hindering the adoption process from their perspective and secondly to comprehend what they see as the benefits in adoption of MyBrand Media. In addition, interviews conducted with users and non users of MyBrand Media to figure out how they have been benefiting since its deployment and what are the problems they see with its adoption. This is to compare if the customer's perceived value and Tradeolution's proposed value are equal or not. This comparison can be utilized to form a value proposition which can be used in the Innovation-Decision Process's pre and post stages.

## 1.5. Delimitation

This section aims to explain the focus and boundaries of the research as well as the aspects decided to be excluded from this thesis. By doing that, the author tries to clarify the scope of study and the reasoning behind it.

Firstly, the study explores the diffusion of digital asset management systems only among grocery suppliers and distributors. This focus group includes both national and international businesses as well as larger, medium and smaller enterprises. Local producers, retailers, wholesalers and online shops were excluded because this system is not targeting them as a customer group and their use of this solution differs from the way the focus group does.

Secondly, this study solely centered on the current situation of MyBrand Media in the rebranding phase and from a business standpoint. The technical issues which could have hindered the adoption of this system are excluded. The reason lies in the author's limited knowledge in the technical aspects of developing and maintaining a digital asset management system.

Lastly, MyBrand Media was previously named MediaStore Bedrift and still holds the same name on the Tradesolution's website. The new title was given to it as a part of the rebranding process and the managers within Tradesolution calls it MyBrand Media today. Therefore, the author has decided to use the term "MyBrand Media" for this research to eliminate any confusion between MediaStore and MediaStore Bedrift.

# 2. Literature review

In this section, the main concepts such as Digital Asset Management, Value, Technology Acceptance Model, Innovation-Decision Process and its drivers will be explained and clarified within the boundaries of the research topic.

# 2.1. Digital asset management

DAM stands for Digital asset management which has been explained in many ways by researchers, practitioners and IT vendors (Kovács, 2004). Yet the most common and general description can be; a set of activities including; storing, searching, retrieving, accessing and reusing of digital assets by authorized users (Kovács, 2004). The more extensive definition can be given as;

"...the end to end lifecycle management of digital assets, including ingestion, asset tagging, asset versioning, asset search, and asset storage and distribution. It provides a centralized repository for managing digital assets. DAM organizes the asset information and optimizes the asset functions such as viewing, indexing, searching, archiving, versioning, tracking, auditing and the like. DAM systems provide a centralized enterprise-wide repository for managing digital assets throughout its lifecycle." (Shivakumar, 2017, p. 254)

Kovács (2004) explains the term DAM from a technological aspect as a series of interconnected technologies that provides the opportunity for storage of electronic material and files to enable sharing among different users of various objectives. DAM performs as a platform for communication and interaction between and within organizations (Kovács, 2004).

In defining DAM, we referred to two different concepts "digital asset" and "file" but what makes a difference between a "file" and an "asset"? (Moon, 2007). What turns a file into a valuable corporate asset which businesses need to manage? Metadata and tagging is the answer. Metadata is a piece of information or description to a file in DAM which turns files and content into assets by the value it adds to the digital archive (Moon, 2007; McCarthy, 2005). Being so, metadata makes the content not also organization-wide searchable and accessible but also informative to all users (Keathley, 2014).

Metadata can be either generated by humans or computers. When humans produce metadata, they add keywords, description and information to it. When computers do, they use the embedded info with each file and extract information like size, date, creator, etc (Kim et al., 2007). The more digital data and content created, the more important becomes the role of metadata and managing them since metadata helps to organize, discover and access files (Kim et al., 2007).

#### 2.2. Value

Companies have found it essential to move from one time selling to a long-term relationship with their customers and have noticed the importance of an efficient relationship especially in the business to business context (Deshpandé & Farley, 2002). However, this relationship can be influenced by how the suppliers see themselves and how customers see the suppliers. This can range from how supportive or trustworthy a supplier is versuses perceived to be to how a supplier presents a product and benefits associated with it versus how the customer perceives the product's benefits (Deshpandé & Farley, 2002).

The word value is defined as the worthiness and benefits of something compared to the price paid for it (Cambridge Dictionary, 2023). In the business field, the word value is used in order to indicate what the outcomes of a purchase would be and how the cost will pay off to the customers (Sánchez-Fernández and Iniesta-Bonillo, 2007). These outcomes when looked at from a customer's eye are called perceived value. Perceived value is defined as

"the difference between the 'utility' provided by the attributes of a product and the 'disutility' represented by the price paid."

(Sánchez-Fernández and Iniesta-Bonillo, 2007, p.426).

In simple words, perceived value is the perception of the user about the trade-off between the benefits gained over the resources spent. The perceived value plays a crucial role in a customer's opinion on the service's quality, performance and the monetary sacrifice or risk made to obtain it. These factors eventually drive the customer's intention in purchasing or repurchasing a product or service (Petterson & Spreng, 1997; Barnes et al., 2009). However, the individual customers and organization customers perceive value differently and the type of benefits they seek for within purchasing a service or product can be dependent on the usage context and decision maker's characteristics (Sánchez-Fernández and Iniesta-Bonillo, 2007). As a result, understanding the value perception of customers helps suppliers to first provide a service that meets customer expectations and secondly to set prices in a way that will not exceed the service's perceived benefits in customers' mind. This comes to be of greater importance in the pre-purchase phase of a service when customers have not been able to use it and gain an overview of the benefits yet (Petterson & Spreng, 1997).

When the value is illustrated by the service or product supplier, it is called value proposition. Value proposition is defined by the service or product provider in order to express why one should choose a specific service or provider over its competitor (Camlek, 2010). Value proposition is made up based on the customer experience, service's offering and benefits, proposed price and other available alternatives. As a result of a powerful value proposition, the value creator is able to gain more customers and keep the ones they already have, improve the product or service and eventually enable growth of its entity (Barnes et al., 2009).

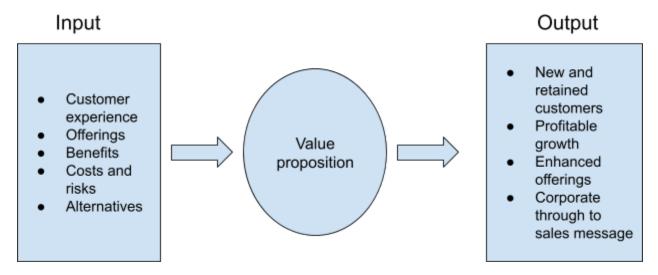


Figure 2. Barnes et al. (2009). The value proposition process.

While the value proposition is defined by the service suppliers and for the customers, a little customer involvement is included in writing a value proposition. Most of the time, the value proposition is made from assumptions rather than real life experiences (Barnes et al., 2009). This mindset creates a gap in the value offered and the value demanded and eventually results in either rejection of the service or discontinuation of use. In order to close the gap, a value proposition needs to shift from a unilateral process to a co-created one with the involvement of all parties who are associated with it (Baumann et al., 2017). The co-creation of a value proposition is a process which engages the customer actively in co-creating and developing a value. This interactive relationship between the provider company and customers, moves away the marketing efforts from the traditional marketing management to an ongoing, collaborative and relation-driven process where customers learn from the supplier in this process and engage in the value creation for that supplier even more in future (Truong et al., 2012). Supplier on the other hand, learns customer's perceived values and their insight on what is value in different stages which provides the opportunity to refine relationships with customers and develop a more accurate value propositions (Truong et al., 2012).

# 2.3. Technology Acceptance Model

"Technology adoption is defined as the first use or acceptance of a new technology or new product" (Khasawneh, 2008, p.24). Davis (1989) expresses that understanding why some people accept and some other reject a technology is challenging and it has been widely studied from human behavior perspective, technology's characteristics, social factors and cognitive styles.

In his technology acceptance model (TAM), he tries to answer the question about why individuals accept or reject IT offerings. The result shows two key factors: perceived usefulness, and perceived ease of use (Davis, 1989). Perceived usefulness is defined as how users believe an IT system will improve their job's performance and Perceived ease of use is about how much effort is needed to use the system. If all other factors are the same, users are more likely to choose a software or technology that is easier to use and better improves their performance (Davis, 1989). However, Davis (1989) further explains that perceived usefulness is a stronger influencing factor on adoption than perceived ease of use. Users tend to value performance benefits first and then ease of use. Nonetheless, if a technology is realized to be difficult to use, it can have a negative impact on user acceptance.

While Davis' study points out only two factors on the technology adoption, Rogers (2003) believed that the adoption of a new innovation is a process influenced by the innovation provider's job and the innovation adopter's job. Moreover, the process and influential factors are varying depending on the type of customer, whether it is an individual or a corporation.

## 2.4. Innovation-Decision Process

Adoption of an innovation is "the process through which an individual (or other decision-making unit) passes from gaining initial knowledge of an innovation, to forming an attitude toward the innovation, to making a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision." (Rogers, 2003, p.107). Figure 3 obtained from Rogers (2003) explained different stages, how they are related and what are the influential factors on each stage.

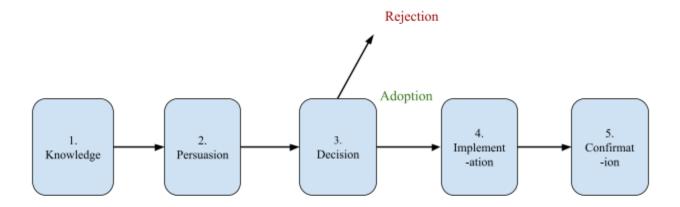


Figure 3. Rogers (2003). Innovation-Decision Process.

#### 2.4.1. First step; Knowledge

The first step in the adoption is gaining knowledge. This is a phase through which the individual or the decision unit in an organization becomes aware of an existing technology and tries to assess its functionality (Rogers, 2003). In this stage, there are sets of factors that influence the Innovation-Decision Process to move forward or stop. These factors on the innovation adopter side comprise decision unit's characteristics, the size of the company and internal IT resources of the organization (Thong, 1999). Communication channels including mass media and interpersonal channels are influential factors on the innovation provider side which can be influencing this stage resulting in moving forward to the next stage or not (Roger, 2003; Thong, 1999).

#### 2.4.1.1. Decision unit's characteristics

The adoption process starts with managers or CEOs being exposed to knowledge either actively or passively (Rogers, 2003). When it comes to organizational adoption of a technology, we

need to take the specific characteristics of the top managers or CEOs into consideration since they play the main role in planning, budgeting, strategizing, and decision-making. Therefore, knowledge of IT, attitude toward IT and innovativeness of these people come to a great importance and have been studied by many scholars (Rogers, 2003; Thong,1999; Thong & Yap, 1995; Kim et al., 2019; Nguyen et al., 2015).

Studies show that the CEOs knowledge in IT and attitude toward IT positively influences the corporate adoption behavior (Rogers, 2003; Thong, 1999; Thong & Yap, 1995). This lies in the fact that prior knowledge helps to avoid selective exposure which is the tendency to give attention to the offer that is only aligned with the decision unit's attitude (Rogers, 2003). In addition, Decision unit's knowledge in IT will affect its analysis of risk associated with new technology and therefore streamlining the adoption process (Thong, 1999; Thong and Yap, 1995).

Some decision units tend to seek knowledge because they feel a need for new technology in their businesses while some of them are exposed to a new innovation through their social network, interpersonal relations or mass media (Rogers, 2003). In Addition, managers might find it easier to understand and form a better attitude toward a technology they have had some idea about before being exposed to. The manager being actively knowledge seeking in addition to the new technology being aligned with the decision maker's attitude increases the chance of passing the knowledge stage to the persuasion stage in the Innovation-Decision Process (Rogers, 2003).

Thong (1999) and Thong and Yap (1995) categorized the CEOs into adopters or innovators. They express that the more innovative a decision unit is, the higher the chance is to adopt a radical technology. Innovativeness of a decision unit will list them among early adopters since these organizations are more likely to try new radical innovations. Adopter CEOs on the other hand tend to follow the innovator's path and lay the groundwork for the next waves of adopters which according to Rogers (2003) is early majority, late majority and laggards. Rogers' (2003) categorization of adopters and the above mentioned characteristics of the organizational decision makers is of great importance for IT suppliers. This understanding of who is the CEO or manager, how they think and what level of IT knowledge they possess can further suggest IT

suppliers on which organizations to approach first in order to build the ground for the subsequent adopter categories (Thong, 1999; Thong and Yap, 1995).

#### 2.4.1.2. Internal IT resources

Internal IT expertise as an interpersonal communication channel can play an important role in knowledge gaining step through changing the CEO or manager's attitude toward innovation adoption (Rogers,2003). Internal IT capacity including knowledge, human resources and infrastructure is mentioned to be one of influential factors affecting innovation adoption (Thong,1999; Nguyen et al., 2015; Garrison et al., 2012). In general, the presence of skilled and technical personnel in an organization will contribute to increasing the technical knowledge of top management and decision makers. In the knowledge-gaining stage of the adoption process, internal IT skills act as educators for the CEO and other colleagues involved in such decisions (Nguyen et al., 2015). Moreover, these employees further assist in assessing the technical benefits of a software in the persuasion stage which helps to evaluate the risk associated with adoption of a new technology and eventually easen the decision making (Kim et al., 2019).

#### 2.4.1.3. Size

Among the organizations, those which are bigger in size (based on the number of employees and turnover) are more likely to accept a new technology solution. Reasons are simple. Small and medium sized enterprises (SME) suffer from some sort of constraints that are related to their size. Lack of Financial resources, absence of technical knowledge and unavailability of skilled human resources are some of the main restricting factors that can influence decisions in adoption of IT in smaller corporations (Thong & Yap, 1995; European Union, 2020). In the previous section, we talked about the important role of internal IT resources who can facilitate technical knowledge absorption and therefore facilitate the adoption of a software or technology. The nature of small and medium size enterprises dealing with absence of these

drivers, making it hard to firstly assess and further decide to adopt. An enterprise's size matters because not all sizes of companies would need a specific software as their operations and internal communication goes well without the need for deploying an IT solution. However, size is not the main reason for SMEs to adopt software but to meet the market and customers' needs. Therefore, while it is harder for smaller firms to take up a new technology, IT suppliers and SMEs need to take external forces such as market pull, customers' need and industry's competition into consideration when evaluating the adoption of a new technology on a firm level (Nguyen et al., 2015).

#### 2.4.1.4. Communication channels

When at the first stage of the Innovation-Decision Process, it is believed that mass media has the best influence on creating a primary knowledge and awareness about emergence of an innovation or existence of a technology in the market (Rogers, 2003). While Mass media has relatively more efficiency on changing weakly held attitudes in the knowledge stage, Interpersonal channels work best on strongly held opinions. When it comes to decide which channels should be used in this stage, it is important that the IT supplier has a deep understanding of the available mass media in the market and its influence on the decision makers. Interpersonal relationships can better substitute mass media in case of strong interpersonal relationships between IT suppliers and client-organization in some fields. Interpersonal channels, in addition, can enable IT suppliers to provide more information and to get control over the personality obstacles hindering adoption process (Rogers, 2003).

# 2.4.2. Second step; Persuasion step

In this step, the decision unit "forms a favorable or unfavorable attitude towards the innovation" (Rogers, 2003, p.107). This attitude can lead the decision unit to take action toward the adoption stage. In the persuasion step, the decision unit is involved with more in

depth thought about the value of the innovation for business, how it will perform in the organization, how would be the outcome and what risks are associated with it (Rogers, 2003). Like the knowledge step, there are factors involved forming the attitude and influence the decision making process. These factors are innovation characteristics including relative advantages, compatibility, complexity, trialability and observability as well as the innovation provider's support, trust, value proposition and use of communication channels. On the innovation adopter side it is the perceived usefulness, perceived ease of use and perceived value (explained in section 2.2 and 2.3) that is impacting the Innovation-Decision Process.

#### 2.4.2.1. Relative advantages

Relative advantage means how much the new solution can bring advantages to a business compared to its counterpart technology (Rogers, 2003). Relative advantages are in line with perceived usefulness in TAM from Davis (1989). Among the technological drivers, relative advantages of a software tend to have the most significant influence on its adoption in businesses (Ramdani et al., 2013). Businesses tend to adopt software which is a solution for improving business performance, facilitates growth and lowers the administrative tasks' cost (Ramdani et al., 2013; Markus & Tanis, 2000). However, perceived benefits of an IT solution is subjective meaning it can change depending on the type of technology and who the user is. The functions and advantages can sometimes be overestimated and therefore in long term affect the perception of usefulness and benefits of that software (Davis, 1989).

# 2.4.2.2. Compatibility

Rogers (2003) defines compatibility as to what extent a technology is adoptable with the current values, previous experiences and needs of the adopter. Ramadani et al. (2013) found that compatibility is the next significant driver in adoption of enterprise software in firms after its relative advantage. This is because there are often other tools and management softwares being used in businesses for their daily activities and if a software is recognized as not being able to integrate with other systems such as CRM or ERP, it will be rejected by the client-organization (Ramadani et al., 2013).

# 2.4.2.3. Complexity

Complexity is a term used to explain to what extent an innovation is difficult to be used or understood (Rogers, 2003). This concept is in line with the term "perceived ease of use" from Davis (1989). Ramdani et al. (2013) discovered that companies with the lack of internal IT competences, find it harder to grasp the capabilities of the technology in the first place and further make the implementation process appear complex to them.

## 2.4.2.4. Trialability

Triability means the opportunity through which a user is able to test the innovation within a limited scope of time before adoption (Rogers, 2003). This aspect is shown to be an interesting offer for organizations especially SMEs. Managers within a SME see these softwares as an investment and the trial period gives them the time to understand and experience the software and eventually facilitate the adoption decision for them (Ramdani et al., 2013). Many software providers today offer a trial period to potential customers. This approach aims to increase the confidence of customers when they decide to adopt the software services (Safari et al., 2015).

# 2.4.2.5. Observability

Observability refers to what degree the benefits of an innovation is visible to others and is impacting on lowering the doubt about its benefits (Rogers, 2003; Safari et al., 2015). Many studies on IT adoption have found that organizations will not adopt software until seeing clear evidence of successful business cases (Rogers, 2003). Currently, many technology providers have allocated sections on their websites that showcase customer success stories, which can help convince potential adopters of the benefits of using their services (Safari et al., 2015). Observability provides the opportunity for organizations to see the benefits from the eyes of current users of the innovation. Observability can "substitute an individual's trial of innovation... This "Trial by others" provides a vicarious trial for an individual" (Rogers, 2003, p.112).

#### 2.4.2.6. Communication channels

The challenges associated with the decision unit's uncertainties in the persuasion stage increases the need for consultation from the decision unit's social network, specifically the peers (Rogers, 2003). Enterprises, specially the ones that are smaller in size are facing constraints in gaining IT knowledge which challenges them in assessing the capability of a software (European Union, 2020). Hence they need to rely on their external IT resources which are either IT suppliers, counterpart managers in the same industry, internet or other IT networks they have. These networks can lower the uncertainty level due to the prior experience they have had with the adoption of a specific technology (Rogers, 2003; Safari et al., 2015).

#### 2.4.2.7. IT partner's support and trust

IT suppliers support (Kim et al., 2019; Nguyen et al., 2015) and trust (Garrison et al., 2012) are two factors which can improve the ability to grasp the technical advantages of a software by a decision unit. It is surprising that the vendor support shown to be negatively impacting the perceived benefit of a software. This finding questions the marketing effort, technology and training support provided by vendors. If what they endeavor for is having a reverse outcome, they need to reconsider their marketing plans (Kim et al., 2019). In contrast to the negative influence of vendor support, lies the positive impact of vendor trust on IT adoption (Garrison et al., 2012).

Studies express that the relationship built between client-organization and IT suppliers are one of key factors leading in IT deployment. The client-organization needs to have confidence that the IT suppliers know their needs, have technical knowledge and support, offer a convenient sort of contract or procurement agreement and eventually that the IT supplier is truly endeavoring to help the client-organization (Garrison et al., 2012). If the decision makers in a client-organization develop such a belief this further can strengthen the relationship and hence positively impact the adoption process. The IT supplier's ability to deliver what they have promised and to market the service as it really is, is a proof for IT supplier's honesty which eventually increases the tendency to adopt technology because the client-company is more

likely to grasp the technical benefits of that software (Garrison et al., 2012). The interorganizational trust creates a set of mutual benefits for both parties resulting from decreased negotiation costs and conflicts, providing open communication, collaboration and mutual respect (Garrison et al., 2012).

#### 2.4.3. Third step; Decision

This stage is when the decision unit takes actions in order to reject or adopt an innovation (Rogers, 2003). Innovation is accepted If through the above mentioned factors at persuasion stages, the innovation's relative advantages and perceived usefulness are aligned with the client organization's value, needs and pains. There are two outcomes from this stage. It is either Adoption which is to pick innovation as the best available solution or rejection which is to decide not to use the innovation. The decision to reject does not necessarily need to wait until this stage, it can happen anytime during the adoption process (Rogers, 2003).

#### 2.4.4. Fourth step; Implementation

At this phase, the client organization has adopted the technology and has started to use it (Rogers, 2003). This is the stage where the change in the organization is about to happen. Although the amount of uncertainties decreased, there still remains some concerns about the future of the business with this new technology. At an organization level, there are many employees involved in the change process. This can make the implementation phase facing challenges with employees' resistance to change. What is unique about the phase is that the implementation phase is where the innovation supplier gains the opportunity to improve its service through the feedback received from adopters (Rogers, 2003).

# 2.4.5. Fifth step; Confirmation

The innovation adoption process does not end when it is accepted or rejected. An agreement which is made for use of the technology can be ceased if the technology user gains unexpected

or unpleasant insights differing from what they perceived it could be (Roger, 2003). In simple words, if the adopter's perceived value turns out not to be true or conflicting the value proposition of the technology the use of that technology can be discontinued or replaced. The confirmation stage is a phase when the user of technology seeks to make sure that they have made the right choice or not in adopting it. It is also a phase when the non-adopters can slightly change their mind if they gain pro-technology knowledge from other peer users in the confirmation stage (Rogers, 2003).

Eventually, The Innovation-Decision Process for adoption or rejection of an innovation is a procedure which can take a long time and if IT suppliers would like to speed up this process, they have to highlight the specific relative advantages of this solution. This is important since at some point in the market, all the potential users might have gained the knowledge but have doubts about adoption or rejecting it. This uncertainty lies in the unclear relative advantages which could help in persuading the non adopter to adopt the technology (Rogers, 2003).

# 3. Methodology

This section explains the paper's research strategy and data collection methods. Data collection sources and the sampling criteria in addition to the research quality ,ethicality and thematic analysis procedure for the gathered data is covered in this section.

# 3.1. Research Strategy

Our objective in this thesis is to problem-shoot the diffusion of MyBrand Media as a digital asset management solution in the Norwegian food and grocery market. The research questions not only intend to discover what has hindered diffusion of MyBrand Media but also the advantages from supplier and user's perspective in addition to possible recommendations for successful diffusion. Consequently, with the aim of this research to create a theory out of the research through case study, the approach is inductive. The philosophy of this research is

interpretivist since we try to understand the social world and relationships between different phenomena through examining the participants' interpretation of that construct (Bryman & Bell, 2011). Moreover, Bryman and Bell (2011) express that interpretivism is aligned with interviews which is the research method of this thesis.

# 3.2. Research Design

MyBrand Media and Tradesolution is chosen as a single case for this research. Case study is an approach used widely and broadly in business and management research. This approach with its in depth and thorough study of an interesting object which can produce insight for learning (Bryman and Bell, 2011). The case study can be categorized into 3 groups; intrinsic, instrumental and collective. Intrinsic case study happens when a case is chosen for the sake of that specific case and it will be studied in detail and depth in all aspects. While, instrumental case study is about gaining better understanding and exploring a topic within that case. In general, intrinsic case study focuses on the understanding of the case but instrumental focuses on learning about a general idea or topic (Kekeya, 2021). That being said, intrinsic case study is serving the purpose of this study the best.

#### 3.3. Research method

Qualitative research method serves the purpose of this research the best and the reason lies in the characteristics and features of this method. Qualitative methods are used when the researcher aims to see the world through the eyes of people who are involved with the subject of study. In addition, the qualitative method provides the opportunity for the researcher to understand the study object properly through close interpersonal interactions. Moreover, qualitative methods are used to understand the reasoning for human behavior and the connections of their behavior to a given context (Bryman & Bell, 2011).

# 3.4. Data collection and sampling

In this research, we used a triangulation method for collecting data. Triangulation means using multiple data collection methods to get better and more accurate results which improves the validity of qualitative research. It is believed that using different methods to study a context improves trustworthiness and acceptance of the findings by others through advancing the validity and reliability of the research (Bryman & Bell, 2011; Jonsen & Jehn, 2009). For that purpose, data gathered from several resources including interviews and interviewee company's website, the Norwegian business community website (Proff.no), the global leader DAM providers' website and scandinavian-based DAM providers' webpage.

# 3.4.1. Primary data

Semi-structured interview techniques as a qualitative research strategy were used as the primary data collection method in order to figure out the most important benefits within the adoption of DAM, the barriers along the adoption process and to provide recommendations. A semi-structured interview is a proper choice for this purpose since this research has a set of objections that it wants to achieve. Bryman and Bell (2011) express that a semi-structured interview provides the opportunity for the researcher to focus on the area of concern but also gives her the flexibility to change wording, the order of questions and asking for more details if necessary. In This research, understanding interviewee's insight on the research topic has been our focus. However, it was expected that in some questions the author might need to go more in detail or ask some follow up question. Hence, semi-structured interviews came as a convenient approach.

Interview guide is a requisite for a semi-structured interview approach. An interview guide assists the researcher to keep track of the areas she wants to cover. In addition, it assists the interviewer to make sure that she has used the same structure and set of questions for all the interviews (Bryman & Bell, 2011). The interview guide for interviews starts with a short introduction about the project and further instructions about the timing of the interview, what it

generally is about and that the data collected will be used confidentiality for the purpose of this study (see Appendix A & B).

In order to evaluate the questions, initially the questions were discussed with the academic supervisor and further one pilot interview was conducted. Faults were recognized, the structure was modified and the order of question revised before running the official interviews. Then, interviews were conducted over video call with managers in client-organizations and managers in the case company. This approach was chosen to gain a deeper understanding of how various client-organizations in different adoption phases see the advantages of MyBrand Media in addition to figuring out if what Tradesolution knows as the benefits is the same as it is sensed by customers.

# 3.4.1.1. Client-organizations

Today, from 1300 Norwegian food and grocery businesses 100 companies have been targeted as a potential customer group and only 13 companies have subscribed to MyBrand Media as a DAM solution. These 13 customers include suppliers, distributors and retailers. Since the focus group of Tradesolution for MyBrand Media is only food and grocery suppliers and distributors, we used a non-probability purposive sampling method. Bryman and Bell (2011) express that non-probability purposive sampling intends to select the participants in a way that they have a strategic relevance to answer the research question. We chose companies to cover companies in different stages of the Innovation-Decision Process. This included companies of all sizes of various types including national, international and Scandinavian ones but also those who have accepted MyBrand Media, those who have rejected it and the ones that have not been approached yet (see Table. 1). This was to make sure that an overview of MyBrand Media benefits and challenges in various businesses is obtained in addition to how these are mutual or different. Of 5 chosen firms, 2 of them are users of the service and 3 are companies who are not users. Among the 3 non-users, company C has been presented with the service and rejected it, company E has never been presented since Tradesolution knows that company E has its own

internal DAM solution and company D has not been presented but is seen as a potential customer.

Company	Title	Date	User / Non-user	Company's Size (employees)	Company's type	Length of interview (minutes)
A	IT manager	27/03/2023	User	30	Norwegian distributor/ National	36
A	Category manager	17/04/2023	User	30	Norwegian distributor/ National	27
В	Master data manager	31/03/2023	User	293	Norwegian supplier /national	41
C	Co-founder	13/04/2023	Non-User (Rejected)	4	Norwegian supplier /national	25
D	Marketing and category coordinator	21/04/2023	Non-User (not been presented)	20	Danish-based/ International	38
E	Category and office coordinator	21/04/2023	Non-User (not been presented)	11	Swedish-based/ International	35

Table 1. Client-organization samples. Employee numbers were extracted from Proff (n.d.-b). Type of the company is extracted from the company's website.

#### 3.4.1.2. Case company managers

The interviewees in Tradesolution are the managers who are engaged with MyBrand Media as a main part of their job. The interviewees are the top managers who are in charge of marketing, sales and business strategy for MyBrand Media and have a deep knowledge of its different aspects (see Table. 2). For selecting the interviewees at Tradesolution, the interview questions were sent to the contact person at Tradesolution and managers were chosen based on their background and relevance to MyBrand Media and ability to answer the question.

Name	Title	Experience with with MyBrand Media	Relation to MyBrand Media	Date of interview	Length of interview (minutes)
Gaute Norderhaug	Chief experience officer (CXO)	8 years	Former project manager, CTO, and current consultant	24/04/2023	42
Siv Bekkerud	Commercial director	1.5 years	Rebranding and strategies	24/04/2023	31
Gjermund Svegården	Sales and marketing consultant	4 years	Managing and initiating sales	30/01/2023	31

Table 2. Samples from the case company. Names and titles are extracted from Tradesolution (n.d.-e).

# 3.4.2. Secondary data

Secondary data collected through systematic literature review, DAM websites and the Norwegian business community website called Proff.no. Systematic literature review is an approach to downgrade the research biases and enhance the replicability of the research. Through systematic literature review, the researcher provides transparent details of the keyword, search engines and steps used, making sure that all published and unpublished resources have been looked up for answering research questions (Bryman & Bell, 2011). For

this purpose I first used Google Scholar for searching keywords (Table 3), secondly Google.com was utilized to search for digital asset providers and thirdly University of Gothenburg's library super search were put into use in order to make sure I have reached to all the content I could for answering the research questions.

Digital asset management	DAM
IT adoption	Diffusion of innovation
Technology adoption	DAM+adoption
Digital asset management + adoption	value
Perceived value	Value proposition
Digital asset management + statistics	Digital asset management+market+statistics
DAM+løsning	

Table 3. Table of keywords.

To analyze the innovation characteristics of MyBrand Media, another part of secondary data collected thorough analysis of 6 digital asset management websites. This approach assisted in better understanding the characteristics of different DAM systems and comparing it to MyBrand Media. The samples are IBM Aspera, Brynder, Acquia, Aprimo, Imagebank and Qbank. Of the mentioned names, the first 4 were listed as leaders of the DAM market on the 2022 report of digital asset management for customer experience from Forrester Research, Inc. (2023). The last 2 are respectively Norwegian and Swedish based DAM providers which showed up as result of searched keywords. These 2 companies have a powerful presence in the Norwegian market and are proper examples for comparison to MyBrand Media. Additionally, MyBrand Media's webpage on Tradesolution website was analyzed to better understand the characteristics of this DAM system and compare it to others.

Lastly, for covering businesses in all sizes, the information about the number of employees of

each client-organization sample were gathered from the Norwegian business finder website called Proff.no.

# 3.5. Research quality

Bryman and Bell (2011) implies that validity and reliability of the qualitative research design are important factors to assess the quality of research. When it comes to a single case study, the reliability, internal and external validity of research acts as criteria to assure the appropriateness of methods, results and assessment of the case study (Bryman & Bell, 2011).

# 3.5.1. Reliability

Reliability means to what extent the research can be reproduced. However, with the constant changing of the social world it is difficult to make a study repeatable in a context it was conducted initially (Bryman & Bell, 2011). In simple words, the context of the study to be replicated does not remain the same over years which make it impossible to be repeated the same way.

The context of this research, which is a digital asset management solution in its diffusion phase with a low adoption rate over years, will not remain the same when another researcher intends to study the same context. Nevertheless, as Bryman and Bell (2011) suggest, the replicating researcher can by adopting the same position and situation of the original researcher be able to sense the same outcomes. This is achievable by the original researcher providing details about the steps taken for conducting the research including sampling, analysis, decisions, reasoning, etc.

The author of this paper has provided the detailed information about sampling, analysis method, the case company and service, the problem and the method of addressing the problem. This information contributes to enhancing the replicability of research through providing guidelines which improve the understanding of social settings and circumstances of the original research and build on its replicability. Moreover, the interview guide provided in the appendix section enables the future researchers to use the same questions and manual and advances the

research's reliability. Additionally, the tables of thematic analysis and coding of interview transcripts has been provided to enhance the reliability of this research.

#### 3.5.2. Validity

Validity is the most important criterion of a study making it acceptable by others and is defined as to what extent the results measure what it was initially stated it would be. When it comes to single case studies both the internal and external validity matters (Bryman & Bell, 2011). Internal validity is defined as if the researcher(s) have understood the interviewees' insight correctly and if there is a mutual understanding between researchers if there is more than one researcher in the study (Bryman & Bell, 2011). Since this research has only one author, the transcribed files were reviewed several times and the table of thematic analysis and color coding were revised a few times to lower the inevitable role of biases in interpreting data. Additionally, the researcher has been assisted through several meetings, phone calls and emails with the managers at Tradesolution to assure the author's understanding of the problem but also to decide on the interviewee client-organizations. Moreover, during the interviews, follow up questions were asked to persuade the interviewee for an in depth explanation of what was being said to improve the researcher's understanding.

External validity of a research discusses if the results of the research can be extended and generalized further to the external context of the specific theme of study. In simple words, the question is how a result of a single case study can be useful to the other cases. This is a common and serious concern when it comes to qualitative studying a single case (Bryman & Bell, 2011). While it is a concern, Lee et al. (2007) explain that the special characteristic of a single case study lies in its role in particularization as understanding the uniqueness and complexity of a single case than its role in producing findings that could be generalized. Although this paper focuses on MyBrand Media and Tradesolution as a case study, the results can be leading researchers in similar cases. This research adapts TAM, DOI and Innovation-Decision Process as a framework to answer the diffusion of MyBrand Media and although the result can be deemed very specific, it is still useful for other DAM solutions who

are in the same Innovation-Development Process as MyBrand Media is. This research provides recommendations for possible strategies to utilize upon the early stages of an innovation diffusion in the Norwegian food and grocery market..

# 3.6. Research ethicality

The ethicality of a researcher comes to importance when the researcher conducts interviews with people. It is the researcher's job to make sure that interviewees are well informed so that they make the right decisions. Additionally the interviewer has to assure the interviewees that their names will be kept confidential if they wish so. Moreover, interviewees' level of stress, self confidence and career should be considered by researchers to protect the interviewees privacy and position (Bryman & Bell, 2011).

For that purpose, the author has informed client-organizations in the email and upon the beginning of the interview that their words will only be used for this study and no names will be released from this research. However, the meetings are initially set by Tradesolution's sales manager and Tradesolution is aware of the interviewed companies. To preserve interviewee's privacy as much as possible in the research, we have substituted the company name with alphabetical letters. Although client-organization names and interviewees' names were eliminated, we had to keep the titles for two reasons. First, the position of the interviewees in the client-organization matters in their perception of benefits and issues related to MyBrand Media and secondly because this will advance the quality of research.

# 3.7. Data analysis

The data that gathered through semi-structured interviews were analyzed using thematic analysis method. Thematic analysis is a method through which the researcher tries to code the collected data from interviews so that they can be interpreted and analyzed (Bryman & Bell, 2011). This Process as explained by Bryman and Bell (2011) started with transcribing the recorded interviews and then coded based on the interview questions and labeled as 1st order codes. The 1st order codes which shared the same meaning and could be interpreted the same,

were clustered into 2nd order codes to highlight the concerns of the interviewees and further increase the understanding of what is said in the interviews and what it can mean. Eventually, the 2nd order codes were merged in a way that they could answer the research question and labeled as Themes. Table below indicates the thematic analysis of the interviews and order of coding process.

1st order Coder	2nd order codes	Themes
Unclear decision unit		
Decision unit's attitude	Decision unit's characteristics	
Decision unit's knowledge		
Perceived value	value proposition	
Communication value		
High price for smallest		
Perceived usefulness		
Relative advantages	Innovation characteristics Hindrance factor	
Observability		
Not utilizing mass media	Communication channels	
Interpersonal channels for knowledge creation		
Time taking knowledge creation		
Non informative webpage		
Perceived support of IT supplier	Trust and support	
Client-organization's trust on IT supplier		
Easy share		
Easy edit and resizing	Less administrative job	Value

Less time accessing, finding and searching media	
Less time informing stakeholders and distributing data	
Mirroring pictures from MediaStore	
Supporting different formats	Consolidation of data silos
Centralization of media	
Distribution of right information	Brand consistency
Keeping industry updated	
Control over company's information	
Preserving company's name	
Compatibility	Innovation characteristics
Trialability	
Picture quality control	Improves digital presence
High quality export of media	
Less error across channels	Lowers insufficiencies
Less job for media receiver in external stakeholder company	
Customized features	Low price

Table 4. Thematic analysis of data collected.

## 4. Empirical Findings

## 4.1. Innovation provider analysis

This section uses the answers and data gathered through semi-structured interviews with Tradesolution's managers in order to point out hindrance factors in adoption of MyBrand Media from the IT supplier's perspective. In addition, in the last part of this section, the 6 DAM providers are discussed and compared to MyBrand Media.

#### 4.1.1. Hindrance factors

The most obstructing factor mentioned by managers is the characteristics of the decision unit including its knowledge in IT, attitude toward IT, and the transparency of the decision unit. Second factor tends to be value in both proposition and perception form and the last factor is not utilizing communication channels in promoting MyBrand Media. Below, each factor is explained.

#### 4.1.1.1. Decision units' characteristics

Through interviewing managers at Tradesolution, we asked them about the challenges they have seen along the way when presenting MyBrand Media and what difficulties they have faced over the years. First and most mentioned element was about the decision unit's characteristics. 2 out of 3 interviewees mentioned that educating managers of the client-organizations is very time taking and sometimes it takes them 6 months from the first initiated negotiations to the acceptance of the software. This process starts with reaching out to a manager at a client-organization, informing them about what the software does and what are benefits. Further, depending on the level of the authority these managers have, the decision to adopt can be taken or stay dependent on the CEO's approval. When this decision requires the CEO's approval, then the mentioned manager at client-organization should be proposing the advantages, benefits and role of this software to the client-organization's CEO. Gjermund, sales and marketing consultant says:

"CEOs in most cases are not familiar with the features, use and advantages of our product. Most of these contact persons cannot make the decision themselves but need approval from management. In sales, it is a common feature that we need to educate the contact person so that he/she can convince the actual decision-maker."

This hierarchy is also known as a problem according to Siv, Commercial director. She believes that the MyBrand Media is used by operation employees while the decision to buy such tools is taken by top managers and these managers are not seeing the value or benefiting directly from the solution. Moreover, if they are the top stakeholders who show up at the negotiations, their level of concern does not include employee's time expenditure in small details.

Not being able to meet with the right people in each client-company has caused the value communications and transparency problems between Tradesolution and client-organizations. There are new managers entering into client organizations or there are new organizations entering the market making it hard for Tradesolution to know who are in the decision unit. Additionally, whilst Tradesolution's value proposition (will be discussed broadly in next section) is about saving employee's time, the managers whom Tradesolution meets to initiate a partnership are not the ones who are involved with such concerns nor perceive it as important. Siv says:

"The ones that we normally meet or we have met are the ones that they are really hands on. They don't have the possibility to have that overview of other actual time they're using and they're not always into how much time they're using and sending images here and there and stuff like that."

Another challenge mentioned by all three managers at Tradesolution is that although decision units at client organizations have shown interest or found MyBrand Media an interesting idea, they still have rejected it. This is mainly because the decision unit in the client organization has

not understood the value or have perceived the change difficult. Gaute, Chief Experience Officer says:

"It takes the big step from acknowledging that they(suppliers) have (need), they should do something to actually change their behavior and then do it. And that has been the problem. They see that, yeah, sure, we should need a digital brand. Yes, that will definitely be important, but I don't do anything about it. And I think that's the problem"

## 4.1.1.2. Perceived usefulness and perceived value

While some managers at Tradesolution believe that the problem so far has been communicating the value of MyBrand Media, some others express that not being able to reach the right people at each client-organization who would perceive what are associated advantages of this solution is the main challenge. Siv, commercial director, regarding benefits and advantages says;

"My opinion of challenge, the challenges of selling MyBrand Media is that the ones that we're selling it to and the one that we're meeting is not always the stakeholders. So they don't see how it could be efficient for them"

Gaute, Chief experience officer, expresses;

"So I think that has been one of the problem for us is that we haven't been able to communicate correctly with the users and the companies"

Gjermund, the sales consultant adds on to the topic. He stated that the reason client-companies reject MyBrand Media is that they perceive it expensive while the monthly subscription is cheaper than other available DAM solutions. While three managers use different wording for expressing their thoughts around value, benefits and advantages, one thing that they have all

expressed is that the relative advantages that MyBrand Media proposes is not perceived as useful by client-organizations.

Another topic Gaute, chief experience officer, brough up is the fact that MyBrand Media has been developed over years with the specific features and functions that the Norwegian FGM need. This is done to keep the subscription fee low but also making sure that this DAM solution meets the specific need of the Norwegian FGM. However, despite the attempts, MyBrand Media can not be distinguished differently in the client-organization's eye. He says;

"I think there's been some misunderstanding in the marketing of the other features that you as a supplier can use. Not only sending your product or making them available for the retail chains"

#### 4.1.1.3. Communication channels

Until today, Tradesolution has not invested money in the marketing efforts nor have they used any mass media channels in order to diffuse MyBrand Media. In the Norwegian FGM exist only 2 mass media namely Dagligvarehandelen.no and DLF. While Tradesolution has been having conferences, webinars and educational webinars promoting their other IT services, they have not taken any action for MyBrand Media. So far, MyBrand Media has been presented to each company separately. One thing that the commercial director and CXO had different opinions about was the best way to approach potential customers. While Siv expresses that she wants to meet organizations in person in order to understand their current procedures, needs and pains, Gaute thinks that there is a need for investing some money on educational purposes to create the knowledge about MyBrand Media and its usefulness. Accordingly, Siv says:

"it's better to give them a call and ... ask how are they working? Then we have the possibility to also see if they have other problems that we can help them with. If it's like MediaStore images and stuff like that, then they have the possibility to get on dialogue with us"

#### 4.1.2. Value

During interviews with Tradesolution managers, we asked them about what is their value proposition today and what are the benefits they see as a value adding characteristic that MyBrand Media has. Tradesolution believes that MyBrand Media can mostly influence the amount of administrative jobs done in an organization. It can also assist a company to manage and improve their digital brand through standardization and high quality digital presence. Moreover, MyBrand Media is a cheaper solution than its counterparts due to the customization of the features. Below section explains each value separately.

## 4.1.2.1. Less administrative job

When we asked Tradesolution about their value proposition for Mybrand Media, Gaute believed that lowering the manpower job is one of the main values. When media files are uploaded to MyBrand Media, they can be given titles and be tagged according to the content they carry. In addition they can be categorized in different levels based on their use or the purpose they serve. The metadata (tagging) and categorizing feature if done properly upon uploading files into the DAM system can later be beneficial in easily accessing them. This feature can enable employees to save time on searching, locating and finding the required media. Gaute, CXO, says:

"if you (as a client-organization) are a little bit more strict about input and set up basic criteria for what you should do when you actually put an image into your digital asset management system, you would gain benefits in the end, easier access..."

Siv, commercial director on that topic adds:

"you also have the possibility to categorize them and to tag the pictures, which makes it easier for you to find the right picture"

Additionally, the files that are uploaded on MyBrand Media can be used through API for e-commerce purposes which lowers the manual job of uploading, resizing and fitting it for the coding purposes everytime. Gaute expresses:

"... You can be done by software that can access your products to APIs and just automatically show product images on your webpage, whatever. Not every time, whenever change, doing it manually and look for the correct product image"

Siv adds that this features can also save space through eliminating the need to save images on different locations and databases for e-commerce use;

"If you have a web page or stuff like that. You don't have to download the images to your own database. You can also link it directly to my brand media. And then we are the one that showing the pictures on your web page, making the possibility so you don't have to store your images several places"

MyBrand Media can act as a hub for both product images and all other media files an organization owns. This means having all the media files in one place and centralizing the data so that you know where to find what you want and where to look for. This is what Sharepoint does as well. SharePoint is a product of Microsoft and is used widely in many businesses Hence, it is important to understand that while many companies use SharePoint as a repository to save and share media, what is the uniqueness of MyBrand Media compared to SharePoint. Siv implies that half of the suppliers in the industry have Medistore and that is where you should upload your product images to be accessed by distributors, wholesalers and retailers for

their purposes. What MyBrand Media does in this process is that it eliminates one administrative task of downloading product images from Mediastore and uploading it into SharePoint by mirroring all the images on MediaStore to MyBrand Media. Siv says:

"Most of the ones that we are trying to sell this to already have MediaStore, which is the branch's archive. And since they have MediaStore (branch archive), if you get MyBrand Media as well, we're copying all the images that you have in the branch archive to my brand media, if you're using SharePoint or stuff like that, you have to download all the images in branch archive to your Sharepoint"

## 4.1.2.2. Managing and improving digital brand

The other value that MyBrand Media can bring to the client-organization is to have a better digital presence and improve the digital brand. This happens through the quality control feature of MyBrand Media, export feature and right management. Below we will explain what has been said about each of them.

MyBrand Media has a feature which checks the quality of pictures uploaded based on industry's criteria. This feature will make sure that the right picture with an industry accepted quality is published so that when it reaches outside of the organization it also could be used in its highest quality. Quality of images according to Gaute has been the main focus at the starting point of MediaStore which is now also added to MyBrand Media. Quality control feature of MyBrand Media will further ensure its use in its best quality by all external parties and over all channels. Gaute explains the problems as:

"there were no quality standards. So one image of Grandiosa (Pizza brand) would not look like the image of Casa di Mama pizza (pizza brand) .... there was no standard ... the quality was bad ...... Some products were using the iPhone, some were very professional, but they had a lot of shadows.... Some didn't have shadows..."

Better quality pictures according to Gaute can influence client-organization's digital brand and presence. It is also counted as a service that they provide to their customers by assisting them accessing high quality images for their use and maintaining a good look for their webshops, apps or leaflets.

Right Management feature that MediaBrand Media provides is perceived to be of value from a commercial director's point of view. She expresses that this feature enables organizations to use DAM as a tool for both internal and external use. This is for making sure that the files that are uploaded on specific catalogs and for specific audiences are not leaked to any other group. In addition, this feature enables version control of media files where the authorized group of that specific category can be seeing the latest updates and version of an image or video. Siv expresses:

"then you'll always have the updated image if you are doing some design changes and stuff like that in the product. With MyBrand Media, you can choose which one, who has access to different, what's called catalogs with images, you have the possibility of sending it to the ones that you want or to share the images that you have and they always have the updated image because you have it in MyBrand Media"

## 4.1.2.3. Reasonable price

Price that is offered for a monthly subscription of MyBrand Media is cheaper than its counterparts and that is because MyBrand Media has only developed the feature that this industry needs and many other features that other DAM solutions offer are eliminated due to them being unnecessary for this DAM's target group. Gaute says

"We are very familiar with all of the suppliers in the Norwegian FGM sector. So we should know their needs, so we don't develop a lot of features that are not necessary.

Because if you look at the digital asset management system, you will find a lot of features that will never be used, or at least for suppliers that we are talking about. So the idea is to develop the features that they actually need in the FGM."

#### 4.1.2.4. Size

Tradesolution believes that the product is having the best value for companies in a medium size who have a specific amount of products in MediaStore. In their earlier attempt, Tradesolution approached potential customers who were already a user of another software called Increase which has an integration with MyBrand Media. This attempt failed and therefore today, they have focused on categorizing client-organization into small and medium size based on client-organization's number of products and turnover. They have made a focus on Norwegian-based businesses which are also not large corporations since large businesses have their own in-house DAM solutions. Regarding Tradesolution's today's approach, Siv says:

"It's the ones that normally are located in Norway and you are an average ... you're not really small, you're not local, but you have a good number of products ... you have a certain turnover... so we've been starting on, I think yeah, has a prospect list of 100 of them"

## 4.2. Client-organization analysis

In this section data collected through semi structured interviews with client-organizations will be elaborated. Characteristics of each company will be explained by their internal IT team, CEO characteristics and size and further their experiences with and without MyBrand Media is expressed.

## 4.2.1. User companies (Companies A & B)

Client-organizations A and B have been one of first adopters to MyBrand Media who have been using it since its commercialization. Both companies mention that they use Microsoft SharePoint for saving and exchanging company files (video, audio, document,...) but they use MyBrand Media for their product pictures.

#### 4.2.1.1. Characteristics

User companies are Norwegian based with a strong internal IT team. These companies are different in size as defined by the number of employees. One has 30 employees and the other one has 293. Company A is a distributor and company B is a producer.

Company A and B elaborate that their internal IT team is very knowledgeable and CEOs support is high in the adoption of new technology when they were asked about the characteristics of the internal IT team and CEO. Company A mentioned that their CEO is very supportive toward adoption of any new solution for their businesses. IT manager at company A says:

"A's manager group wants to use the best software that we can for the company. So this is very easy to get their confirmation (for new technology to be bought)"

Company B explains that they have one of the best IT teams in Norway who always seeks for what is the best for business. Master data manager at company B expresses:

"Our former IT group was very in front. They were very good. They were very good to see what the business needs and think of new solutions ... company X mentions us one of the best in Norway to be in front of to see what opportunity is or what is coming on, how to build a smart solution for our commercial work."

## 4.2.1.2. Customer Experience

This section we will explain the user's experience before and after adopting MyBrand Media.

While company A mentioned the amount of administrative tasks lowered with adoption of MyBrand Media, company B emphasized the role of keeping industry updated and preserving brand consistency. Both users mention that before the adoption of MyBrand Media, there used to be more administrative tasks. They had to inform many different people about a change in images and it was time taking making sure everyone is informed and not missing anyone. There was a risk to miss to inform some involved parties and hence you would have had a wrong image on that channel. On this topic, company B expresses:

"The problem for our business was that there were so many files, so many to share, there were so many databases special for our customer, you have to learn to upload to them, you have to send them by email. .... (When)The design is outgoing and we have to refresh the designs... then when there were new designs, there was a lot of work to update everyone... I know that is one of the biggest issues that was so many different places to upload and we didn't have the time actually to do that. So that was not so good "

They also mentioned that with deploying MyBrand Media, they have centralized all media and its data in one place so they know where to look for what they want. Company A explains that before adopting to a DAM solution they had to search many places and if they could not find what they wanted they had to create their own folder or files

"Before they save all the pictures on file share and they have one file for each use. So if someone had to use a picture for a website, they make a file for website use. I mean if someone wants a small picture to a PowerPoint file, they might get it for PowerPoint. When you enter the file share and find the right picture, you have to see on the file name which picture you have to use. If you don't find it, you have to make a new file for this use"

The IT manager in company A emphasizes that the feature of exporting files for different purposes in different formats and sizes without damaging quality has decreased the administrative job of many people. In his previous experience they used to spend a lot of time on resizing and editing files for their marketing material or e-commerce purposes which also had a risk of reaching the wrong photo at that time.

"We use certain times to administrate pictures, we upload the original picture in tiff format. The software gets the right picture for the right use. So this is yeah, spare time for us and the partner..... (in the absence of DAM) there's a lot of administration and there's a risk that you do not get an optimal picture file."

He believes that this feature can influence the time that employees in partner companies have to spend on accessing the suppliers photos for their different purposes including marketing, webshop, leaflets or mobile applications.

"A partner that has a use (of MyBrand Media) for example, they spare times they don't need to to edit the picture for the use they have to use it for"

He compares the current company and current solution with the previous employer he had and the time they had to spend on editing photos for various purposes.

"My other employer ... They don't have solutions there, they have marketing department that edit the picture for that use that they have to use it for, so they use most time to edit pictures"

Company B agrees that MyBrand Media has lowered the amount of administrative work which used to be done traditionally informing various people, partners, customers and stakeholders about the new product image or new design by implementing DAM. They additionally point out the importance of keeping the company's brand consistent on all channels through providing the same correct information regarding a product to all channels so that you have a good control over the distribution of your brand's data. Company B accordingly expresses:

"there are many ways to use those pictures.... we use those pictures for our business...we share pictures to our customers...grocery stores... chains,... bars and restaurants, our webshop ... webshop of restaurant and bars ... "

Further she talked about the control of the company's data on these channels making sure that everyone uses the information provided for that special product coming from the company's source so that the employees in receiver companies, in the marketing department and whoever involved with that product has the information the brand wants.

"on the web store, the grocery chain, using the text that we are connecting to the product so they don't have to tell us about our products. That way we can do ourselves ... and combined with a picture you can do very much in-house for control of data, what they're saying about our products. So I think that is a very nice way to have in charge if you could say so"

Further she explains more about control of information sharing as;

"This is a very good way of sharing information so that we as a producer are in control of the information that is not going to be misinformation out that everything is (from) our business."

Eventually, interviewees were asked about the MyBrand Media's negative point today that they have experienced using it over years and what have been the downsides. First showed up to be poor search function, second was poor backup system and third was the version control and notifications. Company B regarding poor search function elaborates that whenever they search for a Two-word or more than two-word keyword, the matching result shows up as the fifth or sixth option and all the others before those do not match the keyword or matches only one of the words. This has increased the time they have to search and find what they look for. Additionally, she expresses that the search function is poor because you cannot filter what you

look for or make it more specific to easier find what you look for unless you use a product barcode associated with it . She expresses:

"it's not one (there is no filter function). I have never found any other way to search. It's just one box. You can type search and there's nothing. if you (search) for example X you can get all the brands and then you can say okay and then search on the next level in the product. No, that is not good."

Regarding poor backup system company A has experienced that if a file is unintentionally deleted then they can not retrieve it meaning it is gone forever. He compares it with their Microsoft SharePoint where they can retrieve files for up to 60 days.

The version control feature of the picture was mentioned as a problem which was seen in a grocery online shop that despite the presence of updated photo, an old picture of a product has been used for a long time on that online shop. Company A regarding that issue thinks that Tradesolution could think of ways to make sure that the new picture is visible to everyone, they are notified and it is possible to track every version of an image. Company A says:

"It's a webshop and they have one of our products. It's not long time ago I saw, oh, it's an old picture. You have to tell them to change the picture. But I think that's something that should be notified by Tradesolution to change, because it's a long time ago. I think it's a couple of years ago since we changed the picture"

## 4.2.2. Company C, D and E non-users

Company C, D and E are not users of MyBrand Media and each have different ways of doing things. Moreover, their experiences are different. Company C has been presented about MyBrand Media and rejected it but the other two companies were not presented about the service before by the time we interviewed them.

#### 4.2.2.1. Characteristics

Company D and E are Scandinavian-based companies who sell internationally, and have their own IT teams in other Scandinavian countries. Company E has their internal DAM solution and is ruled by their IT team in the headquarter office which interviewee is satisfied with and refer to as supportive.

Company D, likewise mentioned a supportive manager and IT team in their headquarters. However, company D does not use any DAM system currently. They have made up their own internal shared folder and procedure for storing and exchanging files in the Norwegian office.

Company C implies that with the presence of Microsoft SharePoint, they do not feel the need to pay for software. They are not into many technology solutions and since they are small, their focus is on sales and marketing not on spending a lot on any software.

These companies are different in their size. 4, 20 and 11 are respectively the number of employees in companies C, D and E. Since these companies do not have MyBrand Media, we focus on their current experiences and processes through which they save, exchange and share files internally and externally trying to evaluate the value of DAM. In addition, their relationships with the external IT providers are discussed.

## 4.2.2.2. Customer experience

Data collected through interviews with company D and E explains that the administration of media is a daily part of the interviewees' job. However, the level of its complexity is different based on what other tools each company uses today.

Company D, today, utilizes shared folders, WeTransfer and email to save, exchange and share media to external parties. Shared folder for them acts as a hub to save and access to the organization's files. Everyone in their department has created their own folders and files, named it accordingly and categorized it in a way that is the best for their jobs. The folders and files in that shared folder are named by individuals who have created it and the colleagues have agreed on a standard to name folders and sub folders accordingly.

"We have kind of created our own system that it's easier just to type the year and then you can find what you're looking for and just name it the best you can. Yeah. So it's easier for people to kind of find it"

In case someone needs some content from a colleague's field of work, they can either search for that in the shared file and if they can not find it they ask each other. Interviewee was asked about the positive and negative points they have experienced with the Shared folder. Positive point is that having the shared folder for their job has created an organization wide access to all the media and easy access of all employees in the Norwegian office and eliminating the exchange of files internally. she expresses:

"It's only for the Norwegian office, but then I don't have to send it to everyone. If they, for instance, need one product picture, I don't have to send it to the person, then they can just find it themselves or I can just let them know it's there for instance"

According to the negative sides of the shared file, she believes that sometimes it becomes unpleasant to answer so many questions of colleagues about where to find something.

"Sometimes I am like, you can just look it up yourself kind of, but at the same time, they are not as familiar with my folder kind as I am, so it makes sense as well. And of course it only takes me two seconds to just send them to them so they can find it, so yeah"

Additionally she shares that remote access to shared folders is a bit of a challenge when they are working from home. It is a process through which they have to download all folders on their systems and then they can access the desired media.

"that you can't kind of bring it everywhere. It's difficult when you, for instance, are on a business trip or out of the office, it's difficult to open it then. So I know that we have talked about to create a SharePoint, so you can actually open it from a phone as well"

Moreover, she elaborates that as a new employee it took her quite a time to learn the Shared folder and find the content she wanted. She had to go through each and every file and learn where they are located.

"In the beginning when I was new, it was difficult for me to find everything because I didn't know where anything was. So I just had to kind of look for it and just open everything and see, okay, there it is"

For external sharing of media, if small they use email and uploading the file into that and if the file is big, they use a website called WeTransfer which is free to ingest a media and create a URL link to be attached into a an email and shared externally to their external parties. Regarding WeTransfer company D expresses that it is a very easy and efficient way to transfer files . she explained:

"I know that many businesses in Norway use WeTransfer because it does not cost anything and it's super effective and it doesn't ruin everything with the quality and anything like that... we don't use any money on that. And that is also why people in Norway are using it. And I know that also in Denmark because it doesn't don't cost anything. So it's free.... but WeTransfer isn't for saving. It's not for saving. It's only if you want to send something... But you can store it if you create an account, then you can kind of store what you are sending. But there's no need for that because you already have it in another place."

She further explains that there are also some downsides to WeTransfer. Sometimes it takes a long time based on the size of the file to upload some material and in case of a campaign and a time when they need to meet deadlines, they might miss the deadlines due to the time they have to wait for a file to be uploaded into WeTransfer or downloaded from. She says;

"that it takes super long to download something. If it's a huge folder that you are going to send, it takes super long time for it to"

Company E does not have the need for a new DAM solution because they have their own internal DAM solution where they get the files and media from their headquarters. However, company E's answers to the interview questions points out the relationship between Tradesolution and company E. Tradesolutions services being perceived costly and expensive is a dissatisfaction that company E mentions. Company E believes that Tradesolution dominating the industry and setting the price resulted in Tradesolution's services being costly. That is in common with what company C mentioned as a pain they feel today that they already pay alot for other services they must have from Tradesolution. The fact that the base prices are also high for the smallest company has made it hard for company C to subscribe to extra services. She says:

"it's quite expensive I think bit different pricing (for small and big companies), but it's quite expensive anyhow"

Moreover, company C has expressed that it is challenging for them to see the advantages and value that MyBrand Media can bring to them when they use SharePoint that does all the things MyBrand Media does;

"I don't actually see what MyBrand Media does for us, , we have things we need, why do we have to go to MyBrand Media and have another software package because it's all included in the SharePoint ... That is why I'm not that keen. On MyBrand Media and other software that we don't actually think we need"

The last thing about company C is that she explain that they have an external IT partner who understands them very well and they can communicate easily about what they need and what should be done for their business. In answer to our question about who do they consult with while they do not have an IT team or expertise, she says:

"I consulted with Z, the company called Z.com.... We have one contact person there ... we do not have .... monthly support... But if there is something, we call them and then we

discuss blah blah. Yeah. So they helped us with setting up a new PC for a new employee and stuff like that."

## 4.3. Innovation Characteristics analysis

## 4.3.1. Relative advantages

All the DAM providers offer a a set of same values and advantages such as brand consistency, Organization performance, content management, centralization of data, right management, access and so on. The distinguishing providers are Aprimo and IBM Aspera. Aprimo is distinguished by translating the advantages into numbers and percentages such as "49% Faster Asset Creation, 26% Faster to Launch Marketing Campaigns" (Aprimo, 2023). but also monetizing the annual saving with adopting this DAM "\$184KAnnual Savings on Agency Costs From Content Reuse" (Aprimo, 2023).

IBM Aspera on the other hand focuses on visualizing the relative advantages by a calculator tool provided on the website. This tool indicates how much time will be saved and how much faster it will be to use IBM Aspera when transferring a specific size and format of a file (IBM, n.d.-b).

## 4.3.2. Compatibility

Aprimo, Imageshop and Qbank have a section in their website where it is stated what other softwares they have an integration with. Imageshop for instance explains how the integration happens with different tools such Google S-suite, Wordpress and SharePoint as well as what benefits lie in these integrations. MyBrand Media, however, just mentioned in brief that the integration is possible with other internal systems a company already has. The below text is from MyBrand Media website translated by author;

" Det er også mulig å sette opp integrasjoner mot andre interne systemer, som for eksempel ERP, PIM, nettbutikk osv." (Tradesolution, n.d.-c)

It is also possible to build integrations with other internal systems such as ERP, PIM, online shop, etc.

## 4.3.3. Trialability

IBM Aspera and Bynder offer a 30 days free trial period. Imageshop provides a free trial which is not stated for how long. However, MyBrand Media, according to Siv, offers a 3-month trial period which is extendible in case of request from client-organization.

## 4.3.4. Observability

Observability is a mutual characteristic of all DAM providers. While all of the DAM providers have allocated a section to introduce their customers, success stories and use cases, Bynder, Acquia, Qbank and Imageshop have also included some images of the software interface and design. Yet, MyBrand Media lacks this sort of information.

## 4.3.5. Pricing

The common characteristics of 4 of the DAM providers is that they have pricing and or packages which helps to understand how much it should be paid in exchange for what utility. IBM Aspera for instance offers 4 plans including pay as you go and 3 plans for 3 storage support based on the size of the company. Acquia and Aprimo on the other hand put forward 3 plans for 3 enterprise sizes and different integrations. Qbank also has 3 plans based on the storage they support and size of the business. MyBrand Media web pages misses this type of information

#### 4.3.6. Communication channel

All the 6 DAM providers have utilized their websites as an educational board where they could make the most use to show all the characteristics of the innovation to potential customers. Qbank, Aprimo and Acquia websites for instance provide short videos to illustrate how their DAM works and what features they offer. MyBrand Media webpage however, does not go deep in each and every characteristic of innovation. It only provides some basic information about the solution.

## 5. Analysis

In this chapter the findings from the previous section will be explained using the theoretical framework from section 2. The most important result from finding indicates that while Tradesolution as the innovation provider sees the characteristics of decision unit and value proposition as the main reasons for low adoption pace of MyBrand Media, there are other factors as well which are influencing this process. Some of these factors are dependent on Tradesolution's job and some of them are dependent on Tradesolution's influence on client-organization. Below, the factors and their influence on the Innovation-Decision Process is explained.

#### 5.1. Diffusion obstacles

Our finding reveals that when it comes to diffusion of innovation, there are sets of factors that are under the innovation provider's control and there are sets of factors that the innovation provider cannot control but can only influence. For example, the innovation characteristics are the factors that innovation providers can control and enhance to facilitate the decision making. However, the decision unit characteristics and the presence or absence of an IT team in the innovation adopter organization are factors that are not under control of the innovation provider but can be influenced by the element the innovation provider has in hand.

The finding of this research indicates that diffusion of digital asset management in this market depends on the decision unit's characteristics, internal IT team and the digital presence strategy in the client-organization on one hand. On the other hand, it is the innovation characteristics including observability and relative advantages, in addition to the proper use of communication channels as well as the support and trust on the innovation providers' side that is influencing the Innovation-Decision Process in this context (Fig. 4).

#### Innovation provider's job

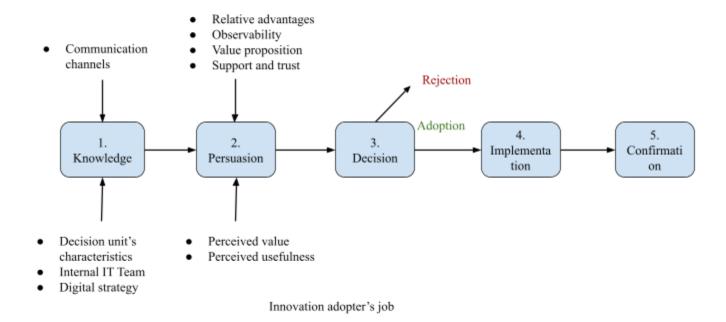


Figure 4. Innovation-Decision Process (Rogers, 2003). Modified by author to illustrate hindrance factors on Innovation-Decision Process of digital asset management.

## 5.1.1. Knowledge stage

Knowledge stage is obstructed by both the client-organization and innovation provider. On the client-organization side, it is the decision unit's characteristics including CEO and top manager's low knowledge, negative attitude toward IT and change, lack of decision unit' structure transparency and absence of an internal IT team that has been acting as a barrier to the first step of the Innovation-Decision Process.

On the innovation provider side, it is the communication channels that have been disrupting the Innovation-Decision Process. The findings of this paper does not support that the size of a company based on the number of employees or turnover has an influence on the adoption of DAM; rather it is the scope of digital presence strategy which brings the need to deploy a digital asset management system.

#### 5.1.1.1. Decision unit's characteristics

Findings from interviews with Tradesolution managers suggest that the low IT knowledge of decision makers, their attitude toward IT and change and the unclear decision unit have been impacting the length of the knowledge stage in the Innovation-Decision Process for MyBrand Media. This means that while Tradesolution spends lots of its time on educating managers and CEOs about the importance of the service they provide, they also are not able to reach out to the exact proper decision maker regarding adopting this service. This challenge has emerged from an unclear decision unit and hierarchical decision making processes in client-organization. Additionally, the Knowledge stage has been taking too long to pass to the persuasion stage because there are new managers entering companies but also new suppliers entering the market and the knowledge creation should be repeated over and over again.

These findings are aligned with the literature review in In section 2. It was mentioned that the decision unit's characteristics influences perceived value and usefulness of a service in the corporate adoption of technology (Sánchez-Fernández and Iniesta-Bonillo, 2007; Rogers, 2003; Thong & Yap, 1995; Thong, 1999). Additionally, it was discussed that the more knowledgeable CEO or top manager is a more potential customer to a new service (Thong and Yap, 1995; Thong, 1999). However, the importance of having a clear decision unit structure in the client-organization showed up as a new finding which has influenced this process. Innovation providers not knowing who to reach to and who are the involved individuals in the decision making in the client-organization has negatively impacted the length of the decision process as well as perceived usefulness and value of the service by innovation adopter corporates.

#### 5.1.1.2. Internal IT team

4 out of 5 interviewed companies express that they have knowledgeable and supportive internal teams which look for the best solution for their business. Of these 4, 2 of them have MyBrand Media as a DAM solution and 1 has their own international DAM solution. Of non user client-organizations, one case has an IT team which is not located in Norway and the other one

is a small company who does not have any internal IT. This is aligned with our discussion of the importance of the internal IT team in corporate adoption of innovation in section 2. Presence of an IT team and its association in understanding what value a technology can bring to an organization acting as an interpersonal communication channel for IT suppliers shortening the adoption process (Rogers, 2003). Moreover, they can assist in highlighting advantages and lowering the concerns and uncertainty (Thong, 1999; Nguyen et al., 2015; Garrison et al., 2012). Interview with company D which has an IT team but not in Norway, suggests that if the IT team was present in the Norwegian office and had observed the complexity of the media management in this office, they could have come to a concern to adopt a DAM system. This finding also presents a suggestion that in case of approaching companies like company D, it is important to have the IT team involved when offering the DAM solution so that the IT team can lower the uncertainties of the Norwegian office manager.

## 5.1.1.3. Digital strategy

In section 2, it was discussed that the larger companies might have it easier to adopt IT solutions because of financial resources, need and internal IT team (European Union, 2020; Thong & Yap, 1995). However, our findings from interviewing companies in different sizes showed that in the adoption of DAM, it is not the size of the company, as the number of staff or turnover, that matters. The vastness of the digital presence of a business is a more important determining factor in the decision to accept DAM. Companies who had broader interactions for their digital presence and had more external parties to interact with, tend to benefit the most and have the most need for this solution. Company D for example has 20 employees but shown to have a lot of external communications which make it a potential customer.

According to the size of the company, Company A with 30 employees shows the same level of satisfaction and has the same length of adoption to MyBrand Media as company B which has 293 employees. However, both companies express that they have so many external stakeholders to inform and exchange information and images with due to the nature of their

business and DAM has helped them with that part. In addition, before DAM, there were many data silos in each organization and DAM helped to integrate all.

#### 5.1.1.4. Communication channels

The varied opinions about the best practice for marketing and utilizing communication channels between Tradesolution's managers could have influenced the diffusion of MyBrand Media in the knowledge stage. While Gaute expressed that there has been no mass media used so far to spread the knowledge of MyBrand Media and it can be a proper option to use different platforms as a marketing channel, Siv believes that interpersonal communication helps Tradesolution to gain an in depth knowledge of the internal processes, needs and pains of potential customer. The fact that the knowledge stage takes the longest time and it is a repetitive process brings up a need to apply strategies in order to shorten this phase and further shorten the Innovation-Decision Process. These findings are inline with our discussion of the impact of utilizing mass media communication channels in the knowledge stage. The mass media showed to be relatively more influential on unsteadily held opinions toward adoption of a technology but also helps to increase awareness and spread knowledge in a shorter time to a bigger audience and reduce the length of Innovation-Decision Process (Rogers, 2003).

## 5.1.2. Persuasion step

Our findings from interviews and secondary data suggests that the persuasion step is obstructed mostly by the job that innovation provider has to do. This means that the unclear relative advantages, low observability, assumed value proposition, support and trust in Tradesolution's side is disrupting the decision process. On the client-organization side, it is the perceived usefulness and value which is influenced by the innovation provider's job and is a barrier to this process.

## 5.1.2.1. Relative advantages

Relative advantages of an innovation known to be the most influential factor on its adoption due to its contribution in perceiving usefulness of the innovation by customers (Ramdani et al., 2013; Davis, 1989; ). The results show that MyBrand Media's integration with MediStore and other Tradesolution systems that businesses use in the Norwegian FGM is its relative advantages over its competitors. Another distinguishing relative advantage of MyBrand Media in norwegian FGM would be the consolidation of data silos. The reason is that if a competitor DAM solution is deployed then it will be an additional data silo which is not compatible with other Tradesolution softwares in the client-organizations.

Nevertheless, an important finding from our client companies reveal that 4 of 5 client companies have SharePoint for their internal file sharing and it is the dominant competitor for MyBrand Media and perceiving its benefits. Additionally, the users express that they use MyBrand Media only for image sharing and not any other format either because they do not really have that much of other files to exchange externally or they use SharePoint for that purpose. If so, then it is questionable why MyBrand Media is not used to its full potential in the user clients. Moreover, why SharePoint is preferred over MyBrand Media in user clients.

## 5.1.2.2. Observability

Our analysis of the 6 DAM providers shows that MyBrand Media has the least observability among all the other providers. Of all 6 studied DAM providers, all of them provide a section about who their customers are, what are the success stories and how different businesses can benefit from this solution. Acquia for instance has a case study section where they explain the challenges, problems and company situation and furthur how DAM deployment has enhanced the return on investment, impacted relationships and brand consistency (Acquia, Inc., 2023-a). MyBrand Media's webpage, however, is equipped with the least amount of information and knowledge about different features of MyBrand Media and the competitive advantages that this software has. In addition the lack of information about how other businesses are benefiting from this solution or how much this solution has been saving for the users can be counted as an hindrance factor in the persuasion stage of the Innovation-Decision Process. In section 2, the

importance of observability and its role in speeding up the innovation adoption process was discussed. Rogers (2003) expresses that hearing or reading about success stories of users of an innovation can contribute to lowering the doubts and uncertainties associated with decision in the persuasion stage of the potential customers.

## 5.1.2.3. IT partner's support and trust

The two user companies have expressed that they have a good relationship with Tradesolution and recognize them as being supportive, knowing the market and providing helpful solutions to the industry. Of the non-users, 2 have implied that they have already been paying lots of money to Tradesolution due to its positioning and the dominating role in the market. That perception hindered the persuasion stage for company C who has another IT supplier which they trust and have a good mutual understanding with. The level of trust between IT supplier and the client-organization as well as the support provided by IT supplier can contribute to persuading the customers to adopt a technology. (Garrison et al., 2012; Kim et al., 2019; Nguyen et al., 2015). Our findings in DAM confirms this theory and agrees that the companies which possess a positive attitude toward the innovation provider, accept the innovation easier and faster.

#### 5.2. Value

Our findings from comparing value proposition, perceived value and comparison of different DAM solutions provides several results. First of all, "lowering administrative jobs" and "consolidation of data silos" are the common values between innovation provider and client-organization. "Brand consistency" and "lowering insufficiencies" are the gains that were mentioned as an additional value by users which was not brought up by Tradesolution. In addition, "Compatibility and Trialability" was shown to be a value of MyBrand Media over 2 of other DAM providers. Eventually, the "reasonable price" showed up not being sensed the same way but to be high for the smallest businesses.

The fact that only two value matches between client-organizations and Tradesolution is an indication of a need for co-creation of value through collaborations with customers (Baumann

et al., 2017). Today, Tradesolution's value proposition is written on the importance of digital brand management and being proposed to the managers who are not interested in digital branding. Co-creating it with company B could be helping in revising the value proposition with emphasizing the DAM's role on brand consistency. This zoom out the focus from digital brand to a broader concept such as brand consistency which might be easier for the CEOs and non IT managers of the industry to sense. Co-creation of value proposition can also happen through integration of customer experience of companies A, C and D into the value proposition process so that it is possible to get a value proposition that is closer to the real needs and expectations. By inputting customer experience, benefits, offers and alternatives as suggested by Barnes et al. (2009), the value proposition can move away from it being built on assumption and closer to real life experiences (Barnes et al., 2009).

## 5.2.1. Lowering administrative tasks and consolidation of data silos

First of all, lowering administrative tasks and consolidation of data silos, is a value that Tradesolution offers and is perceived alike by users. Moreover, the businesses who do not have DAM such as company D showed a need to employ a DAM system due to the indicated complexity and difficulties of managing their files today.

Secondly, the challenge with communication of value proposition lies in presenting it to the decision units who will not be using DAM as a daily basis and not being aware of the load of administrative tasks each employee is involved with. As discussed in the literature review, value proposition is perceived subjectively and depends on the receiver's personal mindset and thought (Sánchez-Fernández and Iniesta-Bonillo, 2007). That is the reason why other DAM providers offer the value proposition on the organization level rather than the employee level. IBM Aspera for instance mentions cost cutting in production and efficient distribution of resources, increased corporate transparency, enhanced sales conversion and customer loyalty as well as strong governance and compliance practices as a value within adoption of DAM. These values are on organization level and are the concerns of the managers and decision makers as mentioned by company C.

## 5.2.2. Brand consistency

Improving the digital presence as a value proposition did not show up in the findings from the interviewed client-organization. What came up was preserving the company's brand and flow management of information outside the organization and keeping the brand consistent by implementation of DAM in company B. Company B, emphasizes that with the adoption of DAM, they have made their presence consistent over all the channels where they have to share media with. This gives them control over company's information but also helps them to preserve the company's brand in the customer and consumer eye.

## 5.2.3. price

The other value proposition, which is "low price solution", is still perceived to be high for smallest businesses according to company C. The analysis from the 6 DAM providers indicated that it is the pricing models that these DAM providers maneuver on. The fact that the pricing model in the competitor companies has been designed to target smallest to largest companies by offering different amounts of storage and integrations as well as the free version of WeTransfer provides a noticeable result for Tradesolution. The lack of a clear and efficient pricing model from MyBrand Media has obstructed the smallest businesses to adapt to it and hindered other businesses to compare and contrast it with competitor DAM providers and confirm its lower price.

## 5.2.4. Compatibility and Trialability

Innovation characteristics including its integration with the already owned systems in corporations and the amount of time they are given to try the innovation for free, are among the factors that can impact the decision to accept or reject the innovation (Rogers, 2003). The comparison of MyBrand Media with the DAM providers indicates that the 3-month trial period offered for MyBrand Media is longer than IBM Aspera and Bynder and that provides a longer period for the customer to experiment the software. In addition, the businesses in the Norwegian FGM have other softwares from Tradesolution and MyBrand Media can be

integrated with those while the implementing another DAM solution without integration with Tradesolution's software in client-organizations might arise some difficulties in connecting all the systems together.

## 5.2.5. Lowering insufficiencies

Tradesolution's value has been emphasizing on quality control and format supporting upon the ingestion of media into the DAM system but Company A points out that they benefit more from the output results through export feature which enables all people in different departments to get the right picture, in the right format and size for various platform. This further lowers human error, decreasing insufficiencies in both the sender of the media and its receiver. This is also an area for improvement for the value proposition with company A to shift the focus of the value proposition on inputting the media files to MyBrand Media to the outcoming media files from DAM.

## 5.3. Strategies to diffuse

Based on the findings and the analysis of the data gathered, there are few jobs that the innovation provider can do in order to impact the Innovation-Decision Process in a positive way. This includes the tasks they can do to improve the innovation but also influence the client-organization's job.

## 5.3.1. Reassessing the service

Companies A and B have adopted MyBrand Media a few years ago and have passed through implementation and confirmation phases and showing satisfaction from the current system. While these companies are good sources of co-creating value propositions, they are also a good source of feedback for improving MyBrand Media. At section 2, it was explained that the customers who adopt the innovation, provide the opportunity to through testing and feedback contribute to improvement of the feature and functionality of the innovation (Rogers, 2003).

Our findings showed that today, company A and B have issues with MyBrand Media's functionality such as its search function, backup system and version control. This could be areas of improvement before diffusion of the service to new customers.

## 5.3.2. Increase observability

Observability and trial by others are two of the innovation features we discussed at section 2. Through these two characteristics, other potential customers in the persuasion stage can more easily make a decision to accept the innovation (Rogers, 2003). Companies A and B are good examples of successful stories and can be studied in order to act as a success case and be published on the MyBrand's Media website. It is also recommended to visualize and monetize the advantages and benefits. This can lower the uncertainties that lie in adoption decisions, improves understanding of relative advantages and shortens the innovation decision process in client-organization (Rogers, 2003).

## 5.3.3. Make relative advantages clear

MyBrand Media if intended to diffuse only in the norwegian FGM has to be more specific based on the characteristics of this market. Moreover, it needs to be discussed why current users do not use MyBrand Media for other purposes other than image sharing. As mentioned by company C, the potential users need to understand why they should have a DAM solution when they have SharePoint which does the same thing but differently. Findings indicate that SharePoint is hindering the client-organization to distinguish MyBrand Media and its relative advantages. As a result, it is recommended to highlight the specific features of MyBrand Media for this specific target group so that client-organizations can comprehend its usefulness and benefits.

#### 5.3.4. Utilize communication channels

In section 2, interpersonal channels are explained as word of mouth, social network and competitors (Safari et al., 2015). It also was explained that interpersonal communication channels have a strong impact on knowledge creation, persuasion before adoption and reconsidering innovation after rejection (Rogers, 2003). Company A and B are interpersonal channels to other businesses in the market and their mindset of the functionality and value of MyBrand Media can impact potential customers' opinion. Hence, it is noteworthy to make sure that these two and other users of MyBrand Media are using it to its full potential and have their issues resolved.

Moreover, mass media communication channels including Dagligvarehandeln, DLF and Tradesolution's website can be put to use to create an industry wide knowledge and create the basic education about the role of DAM in order increase the awareness and spread the word so that all the staff in a client-organization can be exposed to the benefits and advantages of MyBrand Media. Utilizing mass media will eliminate the time the managers in Tradesolution have to invest in educating each and every person in a client-company and provides the opportunity for these managers to put their focus on improvement areas and marketing strategies. They can also make use of their time on their interpersonal relationships for the companies in the persuasion stage.

Eventually, MyBrand Media website as a communication channel for Tradesolution could have been more informative about different aspects of this service in order to create the knowledge more broadly and lower the time spent on the knowledge step. It also could be utilized to be comparable to other DAM solutions assisting the persuasion step of the Innovation-Decision Process. As a result, the first and most efficient way to shorten the innovation decision process could be to rebuild the webpage making it more informative.

#### 5.3.5. Collaborations with non-users

Interviews with non users reveal that DAM like any other solution is not a service for every one. Some do not really need it based on the context of their job like company C and some already have a DAM solution like company E. However, these companies through their feedback and reasoning for rejecting the service can provide insights for possible improvement. Company C's opinion about the service being expensive for the smallest might bring a need to replanning MyBrand Media's business plan. Company D's experience with its own DAM solution can also assist in defining the value proposition more precisely.

## 5.3.6. Categorizing potential customers

While today's Tradesolution strategy is to approach companies based on their number of products and turnover, my findings suggest considering companies who have many data silos, powerful digital presence, active marketing activities and exchanging many files and images to external stakeholders. In addition, categorizing client-organizations based on the type of internal IT team they have as well as the relationships between Tradesolution and client-organizations can assist in deciding on which potential customer to approach first and with what strategy.

## 6. Conclusion

This research by employing DOI theory and TAM aimed to recognize the hindrance factors and solution to overcome barriers in diffusion of digital asset management in the Norwegian food and grocery market. The study through semi structured interviews suggest that the successful diffusion of digital asset management in this market is mutual job and effort from the innovation provider and innovation adopter. The innovation provider has to take the best use of the element they have in hand to facilitate the Decision-Innovation process. For that, an innovation provider has to set clear and distinguishable relative advantages, provide

observability and offer values which are on organization level rather than employee level. Innovation adopters on the other hand should be having an internal IT team and a knowledgeable decision unit which is transparent and possesses a positive attitude toward IT. In addition, to perceive the value and make a decision to adopt, it is required that the innovation adopter perceive the efforts of the innovation provider, supportive and trustworthy. Eventually this paper emphasizes categorizing the potential into different groups and approaching them differently based on the various characteristics of client-organization.

## 6.1. Answering research questions

# 1. What has hindered Tradesolution to gain more customers for MyBrand Media until today?

At this phase, the diffusion of MyBrand Media is influenced by Tradesolution's job and the impact this job makes on the client-organization's job. In the Innovation-Decision Process, the first step is obstructed by the decision unit's characteristics and lack of transparency, the absence of an internal IT team and poor digital presence strategy in client-organization. On the other hand, not taking proper use of communication channels from the IT supplier's side is obstructing the Innovation-Decision Process in its first stage. Communication channels not being utilized strategically has made the Tradesolution's manager spend lots of their time on educating individuals while this task could be eliminated in Tradesolution by using mass media for the knowledge creation.

Moreover, unclear relative advantages and low observability of DAM in the market has negatively impacted its adoption in the persuasion step. The absence of these two features have made it difficult for client-organizations to perceive the value and usefulness compared to its price and counterparts. Additionally, the lower level of trust and support between the IT

supplier and client-organization is negatively influencing the adoption of this innovation in the persuasion stage.

# 2. What are the values of MyBrand Media for Norwegian businesses in the food and grocery industry from the IT supplier and client-organization's perspective?

Tradesolution's value proposition about lowering administrative jobs and consolidation of data silos is in alignment with what is gained in user companies as well as the pains felt in non-user organizations. However, digital brand management did not show to be the same in user companies. On the contrary, company's brand consistency and lowering insufficiencies came up as a gained value in client-organization. Eventually, low price did not show up to be perceived as such by non users and that is due to the absence of need for a DAM, unclear relative advantages and the relationship between DAM provider and client-organization.

## 3. How can Tradesolution as the supplier of MyBrand Media gain more customers?

At this stage, Tradesolution can by collaboration of users, increase observability, highlight relative advantages and rewrite the value proposition. Moreover, it is suggested that when categorizing the client-organization, initially approach those who have a strong IT team, more data silos and a powerful digital presence. Eventually, utilizing various communication channels are recommended to shorten the Innovation-Decision Process.

## 6.2. Contributions

#### 6.2.1. Theoretical contributions

This thesis through employing DOI and TAM theory on understanding the diffusion of DAM has come to results that contribute to the academy. While the literature believes that the size of companies matters in their adoption behavior of technology, this study claims that size in its

traditional definition is not an influential factor on the adoption process of digital asset management systems. However, the size of digital presence efforts is a determining factor on a company's decision to adopt or reject DAM.

In addition, this research found that the more hierarchical an organization is, the more difficult it gets to know who and how to reach the right person in the client-organization to present the service to. As a result, the findings add that the level of the transparency of the decision unit is an influential factor on diffusion of innovation.

Eventually, the findings provides a better understanding of the Norwegian food and grocery market, the characteristics of the suppliers and what should be considered when a new technology diffuses in this market

#### 6.2.2. Practical contributions

Digital asset market is expected to grow as a result of increasing the amount of digital content in the form of video and images. Accordingly, this is becoming an interesting area for IT suppliers and software developers to build and diffuse such a solution. However, the diffusion of a new software is not easy and is dependent on many factors that are either or not in control of the innovation provider. Innovation Provider's job is a non ending task of creating awareness, persuading, revising and improving the product. All of these jobs are not possible without collaborations of customers on value creation, service reassessment and defining a value proposition.

The innovation providers when facing a low adoption rate or in the beginning of the diffusion phase need to make sure that they offer advantages that distinguish them from their competitors and make that visible to the customers. In addition, if an innovation is built for a specific target group where customers share a specific characteristic, it comes to a great importance to be very specific and visualize why this market should choose this solution and not the other one.

Eventually, my findings suggest that innovation providers who have a limited number of customers in a specific market, should make some effort to get to know the characteristics of the decision makers, their knowledge of IT and attitude toward technology. In addition, it is

important to know what type of internal IT team the client-organization has in order to get help from in the knowledge and persuasion stage.

#### 6.3. Limitation and further research.

When it comes to adoption of technology, there are several frameworks that could be studied. However, this study due to a limited amount of time could only employ DOI and TAM. Hence, if other frameworks with other influential factors are taken into this study, the result could be more generalizable. In addition, this study does not take into account the social factors which can influence a company's decision. Therefore, it is recommended that in future studies, the role of social factors are tested on the Innovation-Decision Process of digital asset management systems.

Another limitation is regarding the sample size. The current number of suppliers in the Norwegian FGM is 1300 and despite the several attempts the author and Tradesolution made, author could only interview 5 companies. The author also tried to reach out to the IT manager of company B which was not successful. That being so, more interviews are needed to be able to provide a deeper understanding of barriers and drivers of the Innovation-Decision Process in the Norwegian food and grocery market.

Eventually, the author suggests a longitude study of various client-organizations for monitoring the processes, evaluating the value proposition, sensing the challenges and to be able to visualize the long term benefits of adopting this solution on organization level.

# Bibliography

Acquia, Inc. (2023-a). *use cases*. Retrieved May 17, 2023, from <a href="https://www.acquia.com/products/acquia-dam/use-cases">https://www.acquia.com/products/acquia-dam/use-cases</a>

Acquia, Inc. (2023). *DAM*. Retrieved May 8, 2023, from <a href="https://www.acquia.com/products/acquia-dam">https://www.acquia.com/products/acquia-dam</a>

Aprimo. (2023). Retrieved April 29, 2023, from <a href="https://www.aprimo.com">https://www.aprimo.com</a>

Barnes. C, Blake. H, Pinder. D. (2009). Creating & delivering your value proposition: managing customer experience for profit. Kogan Page, Limited.

Baumann, J., Le Meunier-FitzHugh, K., & Wilson, H. (2017). The challenge of communicating reciprocal value promises: Buyer-seller value proposition disparity in professional services. *Industrial Marketing Management*, 64, 107-121. doi: 10.1016/j.indmarman.2017.02.002

Bryman, A. & Bell, E. (2011). Business Research Methods (3rd ed.). Oxford University Press.

Bynder. (2023). Retrieved May 8, 2023, from <a href="https://www.bynder.com/en/">https://www.bynder.com/en/</a>

Cambridge Dictionary. (2023). *Value*. Retrieved April 1, 2023, from <a href="https://dictionary.cambridge.org/dictionary/english/value">https://dictionary.cambridge.org/dictionary/english/value</a>

Camlek, V. (2010). How to spot a real value proposition. *Information Services & Use, 30*(3-4), 119-123. doi: 10.3233/ISU-2010-0615

Davis, F. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly, 13*(3), 319-340. doi: 10.2307/249008

Deshpandé, R., & Farley, J. (2002). Looking at Your World Through Your Customer'S Eyes. *Journal of Relationship Marketing (Binghamton, N.Y.), 1*(3-4), 3-22. doi: 10.1300/J366v01n03\_02

European Union. (2020). *User guide to the SME Definition*. Publications Office of the European Union. Accessed from <a href="https://ec.europa.eu/docsroom/documents/42921">https://ec.europa.eu/docsroom/documents/42921</a>

Forrester Research, Inc. (2003). *The Forrester WaveTM: Digital Asset Management For Customer Experience*, *Q1 2022*. Retrieved May 8, 2023, from <a href="https://reprints2.forrester.com/#/assets/2/644/RES176316/report">https://reprints2.forrester.com/#/assets/2/644/RES176316/report</a>

Garrison, G., Kim, S., & Wakefield, R. L. (2012). Success factors for deploying cloud computing. *Communications of the ACM*, 55(9), 62-68. doi: 10.1145/2330667.2330685

Gomoll, A. H. & Thornhill, T. S. (2004). Image Catalogs. *Clinical Orthopaedics and Related Research*, 421, 29-34. doi: 10.1097/01.blo.0000126746.83111.78.

IBM. (n.d.-a). *Digital asset management*. Retrieved May 1, 2023, from <a href="https://www.ibm.com/topics/digital-asset-management">https://www.ibm.com/topics/digital-asset-management</a>

IBM. (n.d.-b). *IBM Aspera File Transfer Calculator*. Retrieved April 29, 2023, from https://www.ibm.com/aspera/file-transfer-calculator/

IBM. (n.d.). *IBM Aspera on Cloud*. Retrieved May 8, 2023, from <a href="https://www.ibm.com/cloud/aspera">https://www.ibm.com/cloud/aspera</a>

Imageshop. (n.d.). Retrieved May 7, 2023, from <a href="https://www.imageshop.no">https://www.imageshop.no</a>

Jacobsen, J., Schlenker, T., & Edwards, L. (2005). *Implementing a Digital Asset Management System*. Oxford: Routledge. doi: 10.4324/9780080456430

Jonsen, K., & Jehn, K. (2009). Using triangulation to validate themes in qualitative studies. *Qualitative Research in Organizations and Management: An International Journal*, 4(2), 123-150. doi: 10.1108/17465640910978391

Keathley, E. (2014). *Digital Asset Management* (The expert's voice in content management). Berkeley, CA: Apress L. P.

Kekeya, J. (2021). Qualitative case study research design: The commonalities and differences between collective, intrinsic and instrumental case studies. *Contemporary PNG Studies*, *36*, 28–37. https://search.informit.org/doi/10.3316/informit.356219476950585

Khasawneh, A. (2008). Concepts and measurements of innovativeness: The case of information and communication technologies. *International Journal of Arab Culture, Management and Sustainable Development, 1*(1), 23-33. doi: 10.1504/IJACMSD.2008.020487

Kim, S., Jang, S., & Yang, K. (2017). Analysis of the Determinants of Software-as-a-Service Adoption in Small Businesses: Risks, Benefits, and Organizational and Environmental Factors. *Journal of Small Business Management*, *55*(2), 303-325. doi: 10.1111/jsbm.12304

Kim, Y., Ahronheim, J., Suzuka, K., King, L., Bruell, D., Miller, R., & Johnson, L. (2007). Enterprise digital asset management system pilot: Lessons learned. Information Technology and Libraries, 26(4), 4-16. doi: 10.6017/ital.v26i4.3266

Kollmorgen, M. Building a business case for digital asset management. *J Digit Asset Manag 1*, 399–402 (2005). <a href="https://doi.org/10.1057/palgrave.dam.3640061">https://doi.org/10.1057/palgrave.dam.3640061</a>

Kovács, G. (2004), "Digital asset management in marketing communication logistics", *Journal of Enterprise Information Management*, Vol. 17 No. 3, pp. 208-218. <a href="https://doi.org/10.1108/17410390410531452">https://doi.org/10.1108/17410390410531452</a>

Krishna, M. DAM as SaaS 2.0: Monetizing the content life cycle. *J Digit Asset Manag 5*, 341–346 (2009). https://doi.org/10.1057/dam.2009.33

Krogh, P. (2005). *DAM Book*. Sebastopol: O'Reilly Media.

Lee, B., Collier, P., & Cullen, J. (2007). Reflections on the use of case studies in the accounting, management and organizational disciplines. *Qualitative Research in Organizations and Management*, 2(3), 169-178. doi: 10.1108/17465640710835337

Leland, L. (2000). Assesing Assets In the Networked Economy. *Graphic Arts Monthly*, 72(11), 62.

Lipsey, D. Managing the fast moving (digital) currents: How DAM can help emerging rapid response media centers. *J Digit Asset Manag* 6, 332–335 (2010). https://doi.org/10.1057/dam.2010.44

Markus, M. L., & Tanis, C. (2000). The enterprise systems experience-from adoption to success. *Framing the domains of IT research: Glimpsing the future through the past,* 173(2000), 207-173.

Mathieu, C. (2022). Defining knowledge workers' creation, description, and storage practices as impact on enterprise content management strategy. *Journal of the Association for Information Science and Technology*, 73(3), 472-484. doi: 10.1002/asi.24563

McCarthy, T. Digital asset management in advertising agencies. *J Digit Asset Manag 1*, 189–194 (2005). https://doi.org/10.1057/palgrave.dam.3640031

Moon, M. Activity lifecycle of digital assets. *J Digit Asset Manag 3*, 112–115 (2007). https://doi.org/10.1057/palgrave.dam.3650082

Oliveira, T., & Martins, M. (2011). Literature Review of Information Technology Adoption Models at Firm Level. *Electronic Journal of Information Systems Evaluation*, 14(1), 110-121. Retrieved

https://www.proquest.com/scholarly-journals/literature-review-information-technology-adoptio n/docview/856989919/se-2

Petterson, P. G., & Spreng, R. A. (1997). Modelling the relationship between perceived value, satisfaction and repurchase intentions in a business-to-business, service context: an empirical investigation. *International Journal of Service Industry Management*, 8(5), 415-432. doi: 10.1108/09564239710189835

Proff. (n.d.-a). *Tradesolution AS*. Retrieved April 29, 2023, from <a href="https://www.proff.no/nyheter/tradesolution-as/oslo/it-konsulenter-og-rådgivning/IG0SHXU03D">https://www.proff.no/nyheter/tradesolution-as/oslo/it-konsulenter-og-rådgivning/IG0SHXU03D</a>

Proff. (n.d.-b). Retrieved March 15, 2023, from https://www.proff.no

Qbank. (n.d.). Retrieved May 6, 2023, from <a href="https://qbankdam.com">https://qbankdam.com</a>

Ramdani, B., Chevers, D., & Williams, D. (2013). SMEs' adoption of enterprise applications. *Journal of Small Business and Enterprise Development, 20*(4), 735-753. doi: 10.1108/JSBED-12-2011-0035

Re Cecconi, F., Dejaco, M.C., Moretti, N., Mannino, A., Blanco Cadena, J.D. (2020). *Digital Asset Management*. In: Daniotti, B., Gianinetto, M., Della Torre, S. (eds) *Digital Transformation of the Design, Construction and Management Processes of the Built Environment*. *Research for Development*. Springer, Cham. https://doi.org/10.1007/978-3-030-33570-0\_22

Research and Markets. (n.d.). *Digital Asset Management Market - Growth, Trends, COVID-19 Impact, and Forecasts* (2022 - 2027). Retrieved April 27, 2023, from <a href="https://www.researchandmarkets.com/reports/4535818/digital-asset-management-market-growth">https://www.researchandmarkets.com/reports/4535818/digital-asset-management-market-growth</a>

Rogers, E., & EBSCOhost. (2003). Diffusion of innovations (5th ed.). New York: Free Press.

Roszkiewicz, R. Enterprise metadata management: How consolidation simplifies control. *J Digit Asset Manag* 6, 291–297 (2010). <a href="https://doi.org/10.1057/dam.2010.32">https://doi.org/10.1057/dam.2010.32</a>

Safari, F., Safari, N., & Hasanzadeh, A. (2015). The adoption of software-as-a-service (SaaS): Ranking the determinants. *Journal of Enterprise Information Management*, 28(3), 400-422. doi:https://doi.org/10.1108/JEIM-02-2014-0017

Sánchez-Fernández, R., & Iniesta-Bonillo, M. (2007). The concept of perceived value: A systematic review of the research. *Marketing Theory*, 7(4), 427-451. doi: 10.1177/1470593107083165

Thong, J. (1999). An Integrated Model of Information Systems Adoption in Small Businesses. Journal of Management Information Systems, 15(4), 187-214. doi: 10.1080/07421222.1999.11518227 Thong, J., & Yap, C. (1995). CEO characteristics, organizational characteristics and information technology adoption in small businesses. *Omega (Oxford), 23*(4), 429-442. doi: 10.1016/0305-0483(95)00017-I

Nguyen, T., Newby, M., & Macaulay, M. (2015). Information Technology Adoption in Small Business: Confirmation of a Proposed Framework. *Journal of Small Business Management*, 53(1), 207-227. doi: 10.1111/jsbm.12058

Tradesolution. (n.d.-a). Om oss. Retrieved April 29, 2023, from <a href="https://tradesolution.no/om-oss/">https://tradesolution.no/om-oss/</a>

Tradesolution. (n.d.-b). Retrieved May 1, 2023, from <a href="https://tradesolution.no">https://tradesolution.no</a>

Tradesolution. (n.d.-c). *MediaStore Bedrift*. Retrieved May 8, 2023, from <a href="https://tradesolution.no/tjenester/mediastore/mediastore-bedrift/">https://tradesolution.no/tjenester/mediastore/mediastore-bedrift/</a>

Tradesolution. (n.d.-d). *MediaStore*. Retrieved May 14, 2023, from <a href="https://tradesolution.no/tjenester/mediastore/">https://tradesolution.no/tjenester/mediastore/</a>

Tradesolution. (n.d.-e). *Ansatte*. Retrieved May 10, 2023, from https://tradesolution.no/om-oss/ansatte/

Truong, Y., Simmons, G., & Palmer, M. (2012). Reciprocal value propositions in practice: Constraints in digital markets. *Industrial Marketing Management*, 41(1), 197-206. doi: 10.1016/j.indmarman.2011.11.007

van Niekerk, A. Strategic management of media assets for optimizing market communication strategies, obtaining a sustainable competitive advantage and maximizing return on investment: An empirical study. *J Digit Asset Manag 3*, 89–98 (2007). <a href="https://doi.org/10.1057/palgrave.dam.3650070">https://doi.org/10.1057/palgrave.dam.3650070</a>

# **Appendices**

## Appendix A

## Interview guide for client-organization

Introduction and background

- Starting a bit with explaining who I am and purpose of the study Master student in GU, interested in IT and its impact on businesses
- Make sure it is ok to record
- Taking notes
- Estimated time: 30-40 minutes
- Start the interview with asking interviewee about their role and position

## **Interview questions**

- DAM relative advantages
- 1. Can you tell me how you manage and share files, images, videos in and out your organization?
- 2. Do you have a Digital asset management system?
- 3. Can you name some of the positive and negative traits for your current systems?
- 4. Have you found it useful for your business?

  If yes/no how? (follow up: Can you compare it with when you did not have a digital asset management?)
- External/internal IT
- 5. Who do you consult with for making a decision to adopt or purchase a software?
- CEO/Top manager
- 6. Do you consult with your top manager or do you have the authority to do the purchase on your own?

- Value proposition
- 4. What was the value proposition at first?
- 5. How has it changed over the years?
- 6. How do you come up with such a value?
- 7. What are the advantages to businesses? How do you know that?
- 8. Have you tried monetizing the value with the adoption of Mediastore? Or turn them into monetary values?
- Challenges
- 9. What are the challenges in selling it?
- 10. Who do you approach first? Do you have a strategy for that?
- 11. How do you initiate a selling process?
- 12. What marketing channels and tools do you use in order to create awareness?
- Innovation's characteristics
- 13. How long is the trial period
- 14. Why do you think customers should pay for a MyBrand Media?