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MASTER THESIS IN MARKETING AND CONSUMPTION

Micro Enterprise Performances

A Study of Swedish Online Micro Retailers
in the Clothing and Accessories Industry

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Abstract

Micro-enterprises (ME) is a topic that is less thoroughly studied than its larger peers, the small and medium enterprises (SME), medium and large enterprises. Yet their impact and contributions to the economy and society leaves rather large footprints and it is getting only larger. This study will highlight Swedish online B2C MEs in the retail industry, one of the largest industries in Sweden and with a relatively large share of MEs. The aim is twofold: to contribute to the theoretical knowledge base in the field of marketing and business performance in relation to MEs and to increase practical understanding for existing ME retailers and future entrepreneurs in order for them to improve business performances and achieve financial stability. Company statistics and filings together with literature theories will be used to examine and explain company performances. Based on this analysis, the study found that product prices and size/diversity of assortment offering were strongly correlated with financial profitability while social media presence was correlated with sales turnover.

Introduction

The Swedish retail industry can be characterized as bipolar, being dominated in terms of marketshare and traffic by both micro-retailers and large scale enterprises. Here we are adopting the definition of micro-retailers based on definition recommended by the EU Commission which is companies with an personnel size of under 10 people and/or sales of less than 2 million euros per year (EU, 2006). According to various data sources including SCB and Bolagsverket, solo and MEs (under 10 employees) account for 97% of all registered businesses in Sweden in 2015 (SCB, 2015, Bolagsverket, 2015). In 2008, these types accounted for a fifth of total employee workforce and contributed a fifth of the GDP in Sweden (SCB, 2015). This grew to almost a quarter for workforce employment and GDP in 2014 and still rising fast (SCB, 2015). Sentiment and focus is feverishly high for this segment as investment money according to The Nordic Web reached 8.5 billion sek in 2015, more than double that in 2014(TNW, 2015). Retail sector is the third biggest branch for these types of businesses and is most heavily related to private consumer consumption.

Given the large presence of micro-retailers in the Swedish market, there is also a large and ever increasing number of micro-retailers who are going out of business or simply driven to passivity. Last year in 2016, 6019 company bankruptcies were filed against a total of 71825 newly registered businesses, affecting 16,339 individuals directly associated with the businesses (Tillväxtanalys, 2017). However, these numbers are just the visible tip of the iceberg and actual situation is almost certainly worse. Not all businesses file for bankruptcy when they become unprofitable with many choosing to simply shut down their operations (Visma, 2017). In addition, passive businesses statistics is hard to obtain much less for those that are forced into passivity due to profitability reasons. Given these reasons, it is reasonable to assume that the real number of business “closures” is far higher.

Going out of business or general business passivity creates negative impact for both the business owner and also everyone in and around the business. Employees are directly affected due to layoffs. Suppliers can also be affected negatively since a loss of business customer is also a loss of revenue for them. Creditors can find it difficult to collect on invoices and loans leading to a financial ripple effect. Long term and sustained high failure rate for entrepreneurs can lead to socio-culturally embedded hinders for

future entrepreneurs deciding to start up their businesses and hard to break period of low innovation and economic passivity. In a recent survey of Swedish retailers, the majority expressed the opinion that it is becoming increasingly tougher to drive their businesses (Hellerstedt, 2016).

Bankruptcy risk increases for small and specialized businesses that are geographically localized with larger number of similar competitors (Hellerstedt, 2016). Smaller business and retailers faces higher risk than larger competitors who can offer a larger and more diversified product assortment (Hellerstedt, 2016). Smaller businesses also can lack the tools, know-how and supplier leverage to make their operations run efficiently and given their smaller sales volume, can put tremendous pressure on their profitability. Online businesses faces a different set of threats and opportunities than brick-and-mortar stores. On the one hand, online portal allows them to extend/broaden their reach to new customer markets. On the other hand, they are also put in direct competition against a sudden much larger pool of competitors, many of whom are larger, more efficient, have better offerings or functionalities, and lower prices. This problem becomes even more serious considering the increasing maturity of the online markets and the increasing demands/expectations of the online consumers. Lower prices and wider assortments are the biggest polled advantages for foreign competitors. We see a sign of this in the purchase patterns as more Swedish consumers, up to 6% in the clothing branch, are purchasing from online stores abroad who can offer better deals/service (SDH, 2016). Swedish online retailers can counter this through offering faster delivery and specialized services. (SDH, 2012).

The Svensk Digital Handel (SDH), a Swedish trade association of private ecommerce businesses, partners and interest groups is responsible for establishing and maintaining industry best practices, standards, website security certifications, and promoting the ecommerce industry in external forums. According to the 2016 E-barometer report published by the SDH, which tracks developments and sentiments in the ecommerce industry, consumers ranked the top 6 most important qualities of online retailer's webpage as follows 1.) Total price 2.) clear information 3.) ease of navigation 4.) good search function 5.) Assortment 6.) customer service contact. (SDH, 2016). This combined with the fact that consumers answered the retailer's homepage as the single most important information source when they plan to shop online drives home the importance of "good" marketing throughout the home portal.

A key challenge for online MEs (eME) is to deal with the fluid, short termed "in the moment" consumption and environment online. Studies of online browsing behavior point to the fact that the first 10 seconds of a page visit often determines whether the user leaves or stays (Liu et al., 2010). This is especially critical for eMEs who do not have the brand visibility/awareness that larger players have nor have the same number of marketing channels at their disposal. Quite simply, eMEs **must** communicate their value proposition as quickly as possible (Liu et al., 2010). This is not easy to achieve given the rapid changing nature of the ecommerce platform, the trade-offs needed to meet the homepage qualities that consumers want, and the large number of online alternatives.

How much should eMEs devote their time and resource to developing and ensuring that their webpages are easy to use? Should they focus more on other listed qualities such as carrying a larger assortment or perhaps competing on the total price? Are there other homepage qualities that are not listed that eMEs should pay attention to? Questions of these practical nature are currently not sufficiently addressed by the existing literature or studies. While there exists plentiful literature and studies on general retail business/organizational strategy, small & medium enterprises (SME), retail marketing, consumer

behavior and consumption patterns, and ecommerce, there is relatively sparse documentation around MEs, much less marketing related topics for the eMEs.

Amongst the publications that do exist on ME, topics related to consumerism and societal effects of micro-enterprises, as well as workplace phenomenas have taken prominent position (Karlan et al., 2012). Examples include the study of leadership practices in micro-enterprises (Aronsson & Kristiansson , 2015) and workplace coordination from a communications perspectives (Flyborg & Pettersson, 2016). Business processes and the economics side of the equation has been devoted to a diverse range of topics. Innovation is a popular subtopic here being covered in multiple studies including Ultan and Simon (2016), quality studies by (Prasad & Tata, 2009) and innovation cooperation studies (Tu et al., 2014).

Ecommerce and tech implementation is another area covered in Walter and Norehäll (2005) and network capability in Zacca et al. (2015). However when it comes to marketing topics, there are exceptionally limited previous works which deals with micro-enterprises, one being a conceptual marketing strategy formulation model (Liao et al. 2014) and another which examines innovations in marketing strategies for different sized enterprises (Kiran et al. 2012).

Non-academic publications such as the annual/quarterly digital trade publication by SDH and consumer insight reports from HUI Institute among others contribute to the discussion by providing industry and consumer survey and trends. These publications do a good job of illuminating the opportunities and pitfalls in the online retail minefield for businesses who want to stay ahead and understand the market. Yet despite the attention and growing interest, there is still a need for an independent study determining the validity of the consumer surveys and correlations to business performances.

Problem

There exists a clear knowledge gap here evaluating the practical marketing aspects of ME/eME. Given the inherent financial risk of starting and running businesses and the high demands of today's consumers, it is crucial for ME owners to understand the possible effects on business performance from changes to their marketing mix on the webpages. Though it may be preferable to take a multidisciplinary approach to address this gap from many directions such as logistics and management, our chosen field is marketing. For this study, we are interested in looking at the marketing factors related to the store webpage. Thus, the question which this study aims to answer is:

"What webpage and social media marketing factors do profitable eMEs have in common?"

By examining various webpage/social media metrics across a sample set of Swedish eMEs, the study aims to reveal which marketing factors have significant correlation with financial success. Specifically, eMEs in the clothing and accessories industry will be evaluated. Clothing and accessories is one of the largest consumer retail industries in Sweden, consisting of a larger than average share of MEs. The branch is also appealing for this study due to its marketing transparency and its strong connection with e-commerce and consumer trends. It also shares commonalities with companies across a spectrum of industries that target private consumers such as periodic product assortment to the challenges related to increasing customer loyalty and sales.

Definitions

The subject of study is Swedish eMEs operating in the clothing and accessories branch. The goal is to generalize the findings to a broader group of eMEs in the retail sector. To that end, I will be using the term eME, ME, micro-retailers and micro-enterprises interchangeably throughout the paper. This is due to the fact that the challenges faced and solutions presented are often times applicable in any of these settings/terms.

Delimitations

For this study, I will only be focusing on the marketing characteristics of the webstore and social media platforms. This means that I will not cover advertising/marketing avenues outside of these two sources such as through Google search, advertisements, and email/sms communications. While these can be relevant, it is extremely difficult to measure and assess them. Along the same theme, non-marketing related aspects of the business is also excluded from the study due to the fact that this research is a first and foremost a marketing study. This includes areas such as logistics, management and finance. Financial ratios are examined in the study in relation to marketing factors, but financial theories and solutions will be not discussed. Finally, qualitative data and analysis are excluded from this study since this is a quantitative study.

Theories and Literature

Our study on the business performance of Swedish online B2C micro-retailers and the part of their marketing mix that is directly transparent to the customer through their online portal overlaps several areas of academic study. First is the area dealing with business performance. Here the general themes and topics of research have dealt with several key core concepts including the definition of business performance, drivers/factors for performance, performance benchmark, business organization theories and business management theories (Otheitis & Kunc, 2015). Second is the area dealing with the marketing mix. Knowledge base is extremely large and diverse, and here, I will narrow our discussion down to two particular theories of interest, Service Dominant Logic (S-D logic) and Commitment-Trust Theory (CTT).

It is helpful to evaluate these different areas and their respective models together in this study in order to draw strengths from the different perspectives and hopefully integrate them into a single framework that is practical for our intended ME audience.

Business Performance

Business performances has been a hot agenda for decades. “New reports and articles on the topic have been appearing at a rate of one every five hours of every working day since 1994. A search of the World Wide Web reveals over 170,000 sites dedicated to it” (Neely, Andy, pg 1). Theories related to this area are geared towards practical use. We will take a look at the major key core concepts for business performances mentioned above.

➢ Definitions of Performance

Traditional views of business performance is based on economical factors such as revenue and margin. This has been and is crucial to functions of market actors/stakeholders such as traders, shareholders, banks, and regulators. Financial indicators are used as the underpinnings for most analysis of company position and health. The formalization/adoption of tax codes and modern banking system placed increased demand on financial reporting which in turn led to development of modern financial metrics (Horrigan, 1968). Financial metrics are generally split into four categories: profitability, liquidity, leverage and shareholder value (Kaplan, 2012). Most widely used metrics include turnover, margin, return on asset, current ratio, quick ratio and inventory turnover. Publications from 1960's and earlier predominantly cover methods for maximization of these common metrics such as the study on performance measurement amongst store outlet businesses by Kinney, W (1969). This transitioned to more flexible definitions in Frazier & Howell (1983) which evaluated definitions based on the business environment which determines the "structure of the organization…and nature of its activities" (Frazier & Howell, 1983, pg 60). While some focus shifted upward along the flexibility scale, other perspectives adopted a "continuous" and multi-directional web relationship approach to performance. Phillips et al., (1983) looked at business performance using traditional measures of cost and return on investment (ROI) but together in a single interdependent unit together with product quality, market position and price all acting and reacting interdependently. Since the 90's, newer perspectives have been studied and often adopted in corporate management practice. These include in particular defining performace from a shareholder value perspective (Rappaport, 2006) and most recently, the increasing focus on the eco and sustainability aspects of performance (Figge & Hahn, 2013).

➢ Performance Drivers

Performance drivers naturally follows the above definitions or perspectives about what performance is. As the definitions diverge and change over time, so too are there numerous research areas that have attempted to shed light on the factors that impact performance. Many and especially earlier research have focused on individual/singular factors (Kinney, 1969) and/or isolated discrete one-way cause and effect relationships. Attempts have been made to reconcile and integrate earlier areas of theory including industrial economics, business policy and business organizational theory into more comprehensive performance drivers study (White & Hamermesh, 1981). More recent shifts or reinterpretation of business value chain and functions such as the Service Dominant Logic (S-D Logic), have led to a rethink of the business performance drivers. Marchard et. al., (2002) for example, placed information orientation as the key driver for performance. Reinterpretation of value chain has also emphasized business learning as key component of business differentiation and growth. Likewise, the effect on business performance drivers can be seen in newer publications which focuses on organizational learning to improve performance (Chung & Huang, 2015).

➢ Performance Benchmark

Systematic performance benchmark models have been developed over the years with the goal of helping companies achieve higher performances based on their specific criterias, as well as allowing investors and shareholders to properly and systematically benchmark business results/operations. Similar to the development trends that we have observed for the areas of performance definition and drivers, performance benchmark has also traditionally been dominated by economics. In fact, even today, virtually all benchmark models include some financials facets. A recent survey of companies in the B2C segment noted that between 95% and 99.5% includes costs, revenue and margin indicators in

periodic reporting, the highest of any type of indicators (PWC, 2013). Two of the most popular and widely adopted is the balanced scorecard and the triple bottom line. The Balanced Scorecard encourages a holistic approach to organizational benchmark by viewing the business from multiple perspectives and developing objectives and KPIs related to each perspective (Kaplan & Norton, 1996). The triple bottom line approach also encourages a comprehensive view by inclusion of three areas for economic, environment and social (Hubbard, 2009).

➢ Business Organizational Theories

For the sake of completeness and also to offer additional research and reading direction, I will also touch upon the areas of organizational and management theory. However, bear in mind that organizational theories typically are less relevant for micro-enterprises due to the small size of personnel and the limited number of business functions/processes. The pervading school of thought is based on the contingency theory (White & Hamermesh, 1981). Businesses must fit to their environment, respond to their environment and act within constraints posited by the environment. Adler (2011) proposed a matrix showing a connection between business strategy and organizational structure divided between centralized, decentralized and flat. Indeed, many of the recent frameworks have studied organizational structure in tandem with strategy and propose to show the relationship between the two.

➢ Business Management Theories

Management took shape relatively later than other academic areas, having first become a proper academic field in the 1920's. Early focus was on the psychology and sociology perspectives. In the 70's, business strategy was connected with business management within a market/industry context (Ouchi, 1979). The field evolved into organization control theories whereby control types were identified and mapped with control strategies and transformational requirements to classify firms and their needs. As corporate structure became more complex and stakeholders more numerous, theoretical frameworks moved to address the role and view of management. Davis et al. (1997) proposed that firms move towards a stewardship theory of management as opposed to traditional agency view. Latest studies tend to adopt a comprehensive stakeholder theory integrating resource based views with market based views while including a socio-political aspect (Jensen, 2001).

Performance Theories Usability

As mentioned earlier, not every key concept areas is equally relevant for eMEs. Organizational and management theories are less relevant due to the small size and simplified functions/processes of typical eMEs. Performance benchmarks is also similarly more appropriate for large enterprises, especially frameworks that include larger comprehensive perspectives that goes beyond what eMEs are concerned with. What I will use are the traditional definitions for business performance which ties into the firm's economic performance for the reason that this is by far the most widely adopted perspective industry wide and one which all eMEs can use and relate to. In addition to this, I will also borrow modern perspectives on performance drivers: organizational learning and information orientation. Modern analysis of performance drivers is relevant for eMEs operating in the digital space which undergoes fast rate of transformation.

Marketing Theories

The overlap between marketing and business performance exists both at a practical level as mentioned above but also theoretical. If we take the perspective of marketing as a strategy component in a

business, then integrated approaches to business performance drivers such as White & Hamermesh (1983) combines marketing/strategy as a driver in the business performance. If we instead look at performance benchmark models, we see an intermixing of marketing and non-marketing measurements in modern frameworks such as the customer category in the BSC. Even organizational theories are inexplicably connected to marketing theories through the increasing focus on the organizational structure vs strategy relationship. While we can use business performances theories to provide guidance/context on explanations to performance results from an enterprise/operation perspective, we will require marketing theories to shed light on the effects of the marketing variables on ME consumers and their purchase behavior. S-D logic and CTT are two modern marketing theories that are especially helpful to study the sample set of Swedish online clothing MEs. S-D logic is helpful due to its direct applicability for practical use while CTT covers some of the core tenants of consumer behavior and overlaps with a large number of related theories.

➢ S-D Logic

Postmodern marketing theories have often focused on the service landscape and the idea of value co-creation. The earlier view of the distinct producer vs consumer role or value as tangible goods is increasingly challenged by modern paradigms which focuses on inter-connectivity of network actors and value as service. S-D logic, one of the major recent theoretical proponent of this new paradigm moves beyond the idea of value creation and consumption as merely being tied to physical goods and the inherent values associated in that but rather the value is extended to and should be thought of together as a total service (Lusch and Vargo, 2011).

It explains offer and value creation via the interactions and relationships between actors and was first put forth by Vargo and Lusch (2004) and has been revised since. The framework is based on nine foundational premises that revolve around several key insights. Arguably the most important insight S-D logic makes is its use of the value-in-use as opposed to value-in-exchange thinking. Value-in-exchange is tied to the economical/dollar value placed on the product by the actors or market. This type of thinking leads to businesses and marketeers to adopt strategies aimed at maximizing the exchange value. Value-in-use broadens the view and changes the goals of the businesses to "support the customer's value creating processes with both service activities and goods that render service" (Ballantyne & Varey, 2008, pg 12).

Service is the key word here as S-D logic stresses that even businesses that sell only tangible goods provides a service to the customer through its interaction points with the customers to help them through the decision making, consumption and even post consumption process. S-D logic even goes a step further in regarding all economies as service economies with economies engaging in specialization.

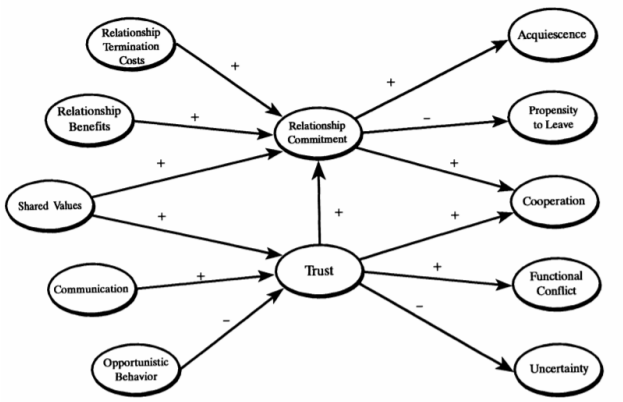
S-D logic also rests on its definition of value and value creation process. Value-in-use concept explains that value can only be derived and viewed from its use. This places consumers as the key determinant and beneficiary of the value creation process. Consumer is always a co-creator of value and is ultimately the one that chooses whether or not to accept the value proposition put forth by the firm. Only by accepting and using can the actual value be known from the perspective of the consumer. The central role that the consumer plays in the S-D logic framework cannot be understated.

➢ Commitment-Trust Theory

A very large school of academics within marketing deals with consumer behavior. After all, marketing is about consumers and to understand consumers, one need to study consumer behavior. Consumer

culture theory is a leading example of a consumer behavior theory as it deals with consumption and consumer behavior through studies and interpretations of consumer identity, marketplace culture and mass mediated marketplace ideologies. Another example of behavioral marketing theory and one which overlaps with consumer culture theory is the commitment-trust theory by Morgan and Hunt (1994). Here, consumer behavior and behavior intent is related to two proposed antecedents, trust and commitment. These two antecedents are explored further and broken down into five perceding antecedents which work in combination to affect the level of trust and commitment in the consumer-business relationship (see Fig 1.)

Fig 1. CTT Model (Morgan & Hunt, 1994)



CTT is an especially relevant theory for our eME study because it contains core principles from both consumer behavior marketing and relationship marketing, two of the more widely studied and accepted fields within marketing. Understanding consumer behavior, establishing and managing customer relationships are crucial areas for eMEs to execute correctly in order to guide purchase decisions and form long term repeat purchase relationships.

Trust and commitment both must exist in order for relationships to be successful between firms and their customers (Morgan & Hunt, 1994). Trust is the confidence that both parties in the relationship have positive and shared/similar intentions for the relationship. CTT shows three antecedents that influence trust. Engagements in opportunistic behavior will lower the trust while engaging in communication and having shared values will increase it. Commitment on the other hand is defined by Morgan and Hunt (1994) as the belief among partners that the relationship is important and worth maintaining. Three antecedents influences commitment, one of which, shared values, is shared with trust. Relationship termination costs and more importantly, the perceived termination costs by partners increases their commitment to the continuation of the relationship. Relationship benefits and similarily, the perceived benefits also increases commitment since this increases importance of the relationship and make it more worthwhile to maintain. Finally, having shared values means partners are more likely to be on the same page and share perspectives, strengthening the relationship and increasing commitment.

Trust and commitment are termed as Key Mediating Variables (KMV) in the CTT model because they are considered key constructs and are thus positioned in the center of the model between the antecedents and the outcomes. Trust is considered so important that it is even itself an antecedent to commitment.

The five outcomes of trust and commitment are acquiescence, propensity to leave, cooperation, functional conflict, uncertainty. Acquiescence is the degree to which one partner complies to the demands/policies of the other/relationship. Propensity to leave is the perceived chance that a partner will terminate the relationship. Cooperation is the coming together of partners to achieve a shared goal. Functional conflict is the productive way by which disagreements are solved and is considered beneficial to a relationship. Uncertainty is the degree of lack of decision making information and ability to predict consequences combined with confidence in those decisions. Trust and commitment reinforces acquiescence, cooperation and functional conflicts while inversely effects or lessens the propensity to leave and uncertainty. Trust through its antecedent relationship to commitment either directly or indirectly affects all five outcomes.

A New Performance Model for eMEs

We see similarities in the S-D logic and CTT approach. Both are consumer centric as S-D logic stresses the central role that consumer plays in value creation and consumption and CTT is entirely built around explaining consumer behavior and relationships. Relationships also follows naturally and to a large extent implied from the foundational premises of S-D logic as the product or value offer is not the physical goods but the entire service offered throughout consumption process. A service based view means longer and deeper customer engagement and one which benefits and is conducive to the establishment of long term meaningful firm-customer relationships. Based on these key similarities, it is helpful here to establish a new combined model, the Service Maximization Model (SMM) that can be used to examine the results of the analysis (see Fig 2).

Figure 2. Service Maximization Model

Service is at the heart of what eMEs provide. As S-D logic states, whether the product is durable, non-durable, tangible or nontangible, service is the “basis for all exchange and that goods derive their value through the service they provide” (Vargo & Lusch 2008, pg 7). From this, I adopt service maximization as

the end or central desired outcome of SMM. Service maximization means that the eMEs provide the best and most value added service offer for their customers. Optimal service should insure that firms stay competitive and financially sound assuming all other factors being equal. The five consumer behavioral/relationship antecedents of the CTT model shown in blue in Figure 2 are combined with three offer related functional premises of the S-D logic shown in brown to form a comprehensive set of influencers on service maximization for eMEs.

I will explain the three S-D logic based offer influencers in more detail here. Service attachment refers to the level of service that eMEs attaches to their tangible product offer. The greater the degree of service attachment, the more opportunity for value add and competitive advantage. This is based on the S-D logic's premise, that goods are distribution mechanism for service provision (Vargo & Lusch, 2008). Customer maximization refers to the firm's ability to understand, learn, engage and enable customers in co-creation of value. This is a combination of two of S-D logic premises: operant resources are the fundamental source of competitive advantage and the customer is always a co-creator of value (Vargo & Lusch, 2008). Operant resources are assets which can act and utilize operand resources such as money, physical assets and knowledge. Employees are an example of operant resources but customers are as well. Customers can become a source of competitive advantage especially considering the premise that they are co-creator of value. They provide customer insight and feedbacks that firms can make use of to create better suited service offers. They also provide competitive advantage by spreading the firm's products/brands via word of mouth and social media. Firms that can best engage and enable customers to co-create value will be best positioned to achieve service maximization. Finally, clear value proposition is the third influencer based on S-D logic's premise that enterprise can only propose rather than deliver value drives the notion behind this influencer (Vargo & Lusch, 2008). Value is only known and delivered upon acceptance/purchase and consumption. The firm can only propose a value and hope that it is accepted. It is therefore critical that our eMEs has a clear value proposition that meet customer needs and is understandable.

SMM provides a comprehensive approach that covers most key aspects of modern consumer behavioral and relationship marketing, and service dominated value creation frameworks. I will use SMM as the context with which the analysis results will be evaluated and discussed in the later sections.

Method

Data for the study will come from the Retriever Business database. This is secondhand data compliation based on yearly business financial and report filings for all registered companies in Sweden at the Bolagsverket. Information that exists here include organization number, number of employees, board of directors, annual report, business structure, income statements, cashflow statement, balance sheet and more. Data is available through searchable parameters and historical data goes back to 2000/2001. In addition, interviews will be conducted with a select few of the eMEs in order to gain feedback and input for important metrics for inclusion in the study. Together, the first and secondhand source materials will be used to get a better understanding of the real world characteristics and performances of Swedish eMEs.

The data universe consists of all B2C eMEs in Sweden while the population is all Swedish eMEs in the clothing and accessories industry. I will collect a smaller sample base of apprx 30 online micro-retailers based on a criteria list as follows:

1.) ***Must have at least 2 years of financial statements***
Multi-year financial history will allow us to see trend over time. In addition, given the volatile nature of startups and also micro-enterprises in general, more data points will give us a more sound and solid analysis.
2.) ***Must sell entirely or predominantly to private customers***
This is predicated on the fact that business purchasers and consumers behave differently when making purchase decisions and carrying out a purchase.
3.) ***Must sell entirely or predominantly through the online channel and through its own website.***
Online stores is what this study is focused on since it is a popular channel for many micro-enterprise startups to be involved in and also because it is more convienient and time efficient for data gathering purposes. Just as important, we are only interested in those that sell through its own website and not through secondary sites such as Ebay or Tradera. This is due to the fact that we need to know the marketing characteristics of the portal through which the purchase is made.
4.) ***Must not have multiple websites***
Having multiple websites or sales channel makes it difficult to determine the cause and effect on the total business performance from individiual sites.
5.) ***Must be based and started in Sweden and not apart of international chain***
Companies that are apart of larger business group established outside of Sweden can make it difficult to determine the real financial performances for the Swedish branch.
6.) ***Must be a aktiebolag***
Other companies setup forms are not required to submit and make public its financial statements.
7.) ***Must be a storefront with set prices and assortments***
Auction type sites are not included since an requirement in the study is that customers know what type of prices and products the store sells.
8.) ***Must be a website that offers clothing and accessaories.***
Clothing and accessories market is a leading market when it comes to entrepreneurs and micro-enterprises in Sweden.

The sample data set will be chosen at random from a filtered list of eMEs that meet the above criterias from the Retriever Business database. Since this is a random sample, the sample should be representative of the population. In addition, there should not be any sampling loss or bias due to non-response rates since data for all companies exists in the database, thus giving a “response rate” of 100%.

Financial Metrics – Dependent Variable

The selection of financial metrics with which to measure and determine the financial growth and stability of the individual companies is just as important as the selection of the companies. KPIs and financial indicators vary greatly between industries and even within the same industry with different sales channels and operational methods such as ecommerce and traditional brick-and-mortar setup (Rist & Pizzica, 2015). Financial ratios and performance indicators need to be selected so that they match

with the goals of this study which is looking at characteristics of financially healthy and distressed eMEs. We need to keep in mind that, standalone ratios are not typically useful and should instead be compared over time, to industry averages or looked at in combination with other ratios (Rist & Pizzica, 2015). Data availability is also a constraint here as I am only able to use the financial item list provided to me in the Retriever Business database.

With this in mind, I have chosen my set of indicators to correspond with the indicators evaluated in the Deloitte's annual Global Powers of Retailing report (Deloitte, 2017), a global industry leading annual publication that aims to identify the largest retailers around the world and their performances within the diverse markets and channels. In addition, I will be borrowing key metrics from PWC's annual Retail & Consumer Insights Financial Benchmarking (PWC, 2017), another widely distributed industry report that highlights financial performances for the retail consumption sector. As mentioned earlier, these indicators enjoy wide spread industry adoption and have been rigorously examined in academic studies. The financial metric list is summarized as follows:

Turnover Change (%)	Profitability	Yearly % change in gross sales
Return on Total Assets (%)	Profitability	EBIT as % of its total net assets. Indicates how effective a company uses its assets to generate earnings
Return on Capital Employed (RoCE) (%)	Profitability	EBIT as % of capital employed. Measures the efficiency with which capital is used.
Net Margin (%)	Profitability	Net profit as % of total revenue. Measures the total cost efficiency
Gross Margin (%)	Profitability	Gross profit as % of total revenue. Measures the Cost of Goods Sold
Equity Ratio (%)	Leverage	Total liabilities as % of Shareholder's Equity. Measures a company's financial leverage or how much debt a company uses to finance its asset
Quick Ratio (%)	Liquidity	Current assets as % of current liabilities. Indicates company's short term liquidity, or its ability to meet its short term obligations with its liquid assets.
Inventories / Turnover	Turnover	Inventories divided by sales. Shows how quickly the inventory is sold and replaced.
Accounts Payable / Turnover	Turnover	Accounts Payable divided by sales. Measures the ability of the company to pay off its suppliers using its sales.

These metrics cover the four main categories of ratio indicators for profitability, liquidity, leverage and turnover. Profitability ratios reveals the company's overall efficiency and performance and its operational margin and returns is important for the company to grow and reinvest the earnings (Ribera et al. 2016). The liquidity ratios represents a gauge on the firm's short term financial solvency situation and shows whether or not the business has sufficient asset or cash on hand to pay off short term payables. This is critical for determining the short term survivability of the firm (Ribera et al. 2016). The financial leverage ratios on the other hand is an indication of long term solvency of the firm as it deals with the extent to which the firm is financed through debt (Liang et al., 2016). Finally, the asset turnover ratios is a operational performance indicator that shows how efficiently the firm is employing its assets and how quickly it is selling. Operational performance is important to look at since operational efficiency will lead to better financial ratios while inefficiency will often cause financial distress. These

indicators can be thought of as leading indicators for business success while financial ratios such as profitability are lagging indicators (Liang et al. 2016).

Website & Social Media Metrics – Independent Variables

The data for the website metrics are collected from the individual webstores from the perspective of a normal online shopper. This is important since we want to determine possible correlations between business financial performances and website marketing metrics that are visible to shoppers. Since there are a myriad of variables that we can define and collect on a store website, it is important that we first define a standard list of variables that is both collectable and relevant for all websites. In order to obtain guidance and direction and to keep the list from growing too large, I will use the findings from the latest year's e-barometer report, e-barometern årsrapport, from the Svensk Digital Handel (SDH, 2016).

According to the e-barometer report, the homepage of the online retailer was the most important information source for consumers with 81% of surveyed Swedish consumers saying that it is a very important information source when they are making a purchase online (SDH, 2016). This compares favorably to second place Google at 76% and third place comparison websites at 63% (SDH, 2016). In the same survey asking about which communications channel was the most important when it comes to getting consumers' attention, homepage came in second with 9% of surveyed consumers saying it was the best channel while email took first place with 62% and social media coming in at 4th with 6% (SDH, 2016).

Both homepages and social media sites are undeniably important in functioning as communication and marketing channels for eMEs. Swedish online retailers seems to have understood this message as study shows that Facebook was the widely used marketing channel with 83% of online retailers using it and social media in general took 3 of the top 5 spots with instagram being another popular channel (SDH, 2016).

The most important homepage attributes/factors for online shoppers when they determine which websites to buy from in order from most to least important are as follows: total price, clear information, easy to navigate, good search function, assortment offer, customer service contact, and website safety certification (SDH, 2016). The top three most important reason why consumers pick online over physical shops are from most to least: product availability, lower price, and convenience. However, within individual industries there are differences. Sport and hobby industry saw the highest percent who said product availability being the highest reason due to high number of niche products (SDH, 2016). Convenience becomes a bigger factor for consumers who have made repeat purchases online in the past and this is due to the simple fact that they realize the convenience and benefits of purchasing online as well as having built a stronger trust in the online store (SDH, 2016).

Yet competition from foreign competitors threaten to take away customers and sales from local eMEs. Lower prices and wider assortments have been a traditional source of competitive strength for foreign retailers but now they are even shoring up their weaknesses. Foreign competitors have being work hard at reducing delivery time to Swedish customers with a third taking between 3 and 5 days. Average delivery times have reduced over the past 10 years. Many online actors are also offering specialized faster delivery. This has produced the effect of raising customer expectations for delivery time and service (SDH, 2012). Examples such as this highlights the myriad of factors that could be considered in

defining the websites and examining their marketing mix. Based on the consumer surveys provided in the industry publications. I have set out the following metrics with which we will measure the websites on:

Price (Pants, T-shirt, Long Sleeve Shirt, Jacket, Shoes)
Price being the number one most important factor for online shoppers when choosing where and if to buy should correlate strongly with business performances. Here I have taken 5 of the most common type of products sold through these online retailers in the clothing and accessories branch and mapped out the average selling price for products in each of these 5 product types. I will then correlate the individual product types with each of the financial metrics. This has two benefits. First, not all stores carry products from each of the product types and therefore correlate individual product types separately gives us more data points for statistical analysis which is more statistically reliable. Second, individual correlation gives us a chance to see whether individual product types are more/less price elastic.

Number of Clicks to Checkout
Every additional click increases the likely chance of a cancelled order (HUI, 2016). As mentioned earlier, speed and ease are two key factors that shoppers choose online over physical stores. Complicated checkout procedures involving extra navigation and clicks should result in less sales. Here, we are measuring the number of clicks it takes to make a single item purchase from homepage to product selection and finally to the checkout screen.

Visibility of website certificate
Security and privacy are two constant themes and areas of concern for the online ecommerce industry. Instances of data breach, identify fraud and frivolous online establishments reported to the police and consumer agency (konsumentverket) have increased by three fold since 2010 (PostNord, 2015). Industry and government expert discussions and taskforce have been created to tackle these issues as well as prepare for future challenges at forums such as the annual Emeet (Emeet, 2017). Since 2007, Svensk Digital Handel has been responsible for certifying companies who apply for their Trygg E-handel certification. Approved companies may apply the certification symbol on their website and this should have a positive effect on business sales.

Product Assortment
Product offering is a factor that is also consistently on the top list of factors that online shoppers look at when deciding where and if to shop (SDH, 2016). Here I have divided this metric category into three distinct metrics: **number of brands, number of categories** and **number of articles**. Brand loyalty is particularly visible in the clothing industry where consumers construct identities by choosing and consumption of brands (Su & Tong, 2016). Self image is tied to the brand image and this is positively reinforced through continued development of the self concept and expressing one's self identity (Muniz & O'Guinn, 2001). I thus expect that higher number of brands will increase business performances. Product categories are defined based on the category definitions per United Nation's classification for trade goods version 3.0 (UN, 2017). Similar to brand count, higher number of product categories and number of articles should provide more choices and cover more of what the customers are looking for thus leading to a greater chance that the customer will find what they are looking for. Additionally, more product categories can lead to opportunity for cross-sell.

Percent of Article Distribution in Top 3 Categories
An additional metric within the product assortment is the article distribution percent. Using the product category definition from UN, I determine the percent of the total product sortiment that are in each of the websites' three largest product categories. This is to give an idea of the weighting and distribution of the product collection.

Homepage Visual Metric
Research have shown that different designs and information content factors can influence the trust factors for online sites (Silence et al., 2004). The study shows that the visual factors of website is the main driver of the first impressions. 94% of feedbacks given by the test participants were about visual designs and poor designs were strongly associated with rapid rejection and mistrust (Silence et al., 2004). Given the importance of first impressions and visual appeal, I have included 5 visual metrics as follows: **Image Saturation, Amount of Content, Orderliness, Modernity, Color Scheme.** Image saturation is the amount of images present on the homepage. Amount of content is the amount of the text content on the homepage. Orderliness is how structured the contents are while modernity is how modern or visually/technically sophisticated the site is and finally, color scheme is how neutral or vibrant/heavy the color schemes are.

Website Ease of Navigation
Ease of navigation and the ability to find what you are looking forward is ranked among the top decision factors for online shoppers (SDH, 2016). Websites that are more well-structured with clear layout and labeling should have an positive effect on the business performance.

Free Shipping
Shipping is a undoubtedly crucial cog in the online shopping process for both parties. Complaints related to shipping and delivery is currently the 3rd most common complaint type for Swedish customers (HUI, 2016). Pressure from both domestic and foreign competitors have forced many e-retailers to include free shipping as standard. For younger generations, it can be attractive and a determining factor to order on impulse if free shipping and free return are offered. (GP, 2017). I therefore expect that free shipping should correlate positively with topline financial performance. At the same time, free shipping is an added expense for the retailers, and depending on how often it is used and the average order amount, it can effect the bottom line financials significantly negatively.

Free Return Handling
Similar to shipping, return handling is also a top complaint among Swedish customers (HUI, 2016). Return policies are often not clear leading to questions and anxiety among customers as to how to return products.

Credit Payment
According to the latest annual report, 4 out of 5 consumers believe that is important to be able to choose the payment options. (SDH, 2016). Additionally, 1 out of 2 consumers want to have the option to pay using an invoice, which is a form of credit payment. (SDH, 2016). Industry wide, nearly 40% of customers pay using invoice for online purchases and is their preferred form of payment option. Having the right payment option will enable customers to pay for their purchases and thus increase sales and financial performances.

Customer Contact Options (Email, Phone, Chat)
85% of surveyed Swedish online consumers say that customer service contact is a important factor for them to look for in a online store (SDH, 2016). Most importantly is clear information for them on how to get in touch with customer service. Here I have included three of the most common ways to contact customer service, **Email, Phone, Chat**, as metrics.

Social Media
While social media only came in 4th place with 6% of surveyed online consumers saying it was the most important communication channel to get information and offerings from stores, it is important to keep this as a metric due to its widespread use and popularity. It is so popular in fact that up to 77% of all internet users use social media and 58% use it daily (iis, 2016). The top three social media platforms are Facebook at 71% usage, Instagram at 44% and Linkedin at 26% (iis, 2016). I have chosen to use **Facebook, Instagram, Twitter, Pinterest, Youtube** for my metrics. Facebook and Instagram are by far the most popular social media platforms while Twitter, Pinterest and Youtube all have relatively heavy advertising content as opposed to other equally or more popular platforms that have less consumer advertisement such as Linkedin. I will be gathering data on whether or not the individual stores/companies exist in each platform. I will even be gathering data on **how many likes** (Facebook only), **number of followers** and whether the businesses are **active/frequent** on the platforms (Facebook and Instagram only).

Data Types

Since we are studying a group of individual firms at one point in time, the data is cross-sectional in nature. In this study I am dealing with three different data types. All financial metrics as well as part of the website metrics are ratio data since the attributes of the metrics tells us about the order, exact degree/interval between units and there exists an absolute zero. We also have ordinal data type for a few website metrics where the attributes of the metrics are differentiated by order but there is no relative degree of difference between them. Third, we have nominal data types for all the homepage visuals and part of the social media metrics. Nominal scales are used for labeling variables without any inherent quantitative value meaning. In order to run statistical analysis on the dataset, the dataset must first be prepared by converting non-numerical data to numerical values. This is performed for the ordinal and nominal data types where text/labeling values are given whole numerical values 0, 1, 2, etc in accordance with the inherent text value category ranking where appropriate. As mentioned earlier in delimitation, qualitative data that are non-quantifiable are excluded in this study. This includes contextual/content analysis data on postings made on social media platforms and retailer websites.

Quantitative Goals:

Examine relationships between variables.

This is an exploratory quantitative research where there isn't a clearly defined specific problem to solve, rather the aim is to identify patterns and ideas to develop rather than test hypothesis. The study will be inductive in nature where I will make specific observations based on a sample data set, discern a pattern, make a generalization and infer an explanation or theory.

Reliability and Validity

Reliability and validity are both equally important in quantitative studies in order for it to be accepted. For reliability, it is important to arrive at the same results on repeated trials. This consistency and precision of the measure is highly dependent on the data collection method. Looking over our dataset, we have two sets of metrics, one being financial figures reported by the businesses and taken from the Retriever Business database and the other gathered firsthand by visiting and evaluating the business sites. While there are always exists possibility for misreporting by businesses, the business filings can in general be considered reliable. Website metrics however can be entirely subjective to the researcher. For example, researchers can become too familiar with the study object, leading to inferences or evaluations which is inaccurate or might not even exist (Hsieh & Shannon, 2005). To combat this problem, I have sent out a email survey containing a screenshot of all homepages of the websites/businesses in the sample data set to a select group of consumers who shop online. The selection process was random and the pool is drawn from various sources including Ehandel.se forum and facebook forums. In the survey, the respondents are asked to judge and rank the homepages based on the same metrics that I will be measuring in my list and using the same categorization for the values in each respective metrics. 18 replies were collected and analyzed for consistency and closeness to my own evaluations in order to determine reliability of the data values.

Validity, or the degree to which a tool or study measures what it claims to measure is also an issue for this study. There are two types of validity, internal validity which is the causal relationship identifiable within the study, and external validity which is the generalizability of the study results to the general population. To establish internal validity, I will use the technique of triangulation where I will apply multiple different statistical methods to determine correlation and causality between the two sets of variables, financial and website. These statistical methods include the t-test for the testing the significance of differences in group means, the chi-square test, Pearson's R and multiple regressions analysis. To establish external validity, I am choosing my sample data set randomly so as to avoid selection bias. Since the sampling method is stratified where I choose to focus on online retailers in the clothing and accessories branch, this limits the generalizability to other branches, especially branches with very different characteristics. In addition, all sample data is collected for Swedish companies who sell in Sweden, so there is also a generalizability concern for businesses operating in markets outside of and different to Swedish market.

Results and Analysis

Descriptive Analysis

We will first look at the descriptive analysis of both the financial indicators (Fig 3) and the webpage metrics (Fig 4) in order to get a background context on how the sample set looks and also to get better acquainted with the metrics.

Fig 3. Descriptive Statistics (2016 Full Year Company Filing, Swedish Kronor)

	Turnover change (%)	*Return on total assets (%)*	*Return on Captial Employed (RoCE) (%)*	*Net margin (%)*	*Gross margin (%)*	*Equity ratio (%)*	*Quick ratio (%)*	*Inventories / turnover (%)*	*Accounts Payable / turnover (%)*
Mean	107.0	10.4	-24.3	4.8	49.2	38.5	127.0	20.4	2.9
Standard Error	42.5	9.1	62.9	3.3	2.6	4.6	16.6	2.9	0.7
Median	34.1	8.8	20.0	5.0	48.3	38.1	102.7	15.7	2.3
Mode	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.0
Standard Deviation	232.8	49.8	344.6	18.0	14.0	25.5	90.7	15.9	3.8
Sample Variance	54211.9	2478.3	118735.1	323.1	196.6	648.5	8231.5	253.8	14.6
Kurtosis	21.3	16.1	27.0	4.2	-0.5	-1.1	0.8	-1.0	10.2
Skewness	4.3	-3.4	-5.1	-1.1	-0.2	0.1	1.1	0.6	2.7
Range	1283.7	299.6	1976.7	99.8	54.7	86.8	350.1	51.0	19.0
Minimum	-34.5	-218.9	-1806.0	-53.8	17.7	1.3	13.9	0.0	0.0
Maximum	1249.2	80.7	170.7	46.0	72.4	88.1	364.0	51.0	19.0
Sum	3211.4	312.3	-730.4	145.1	1475.2	1155.7	3811.3	611.3	87.7
Count	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0

There are several notes of interests regarding the descriptive statistics for the financial metrics. First is the significant width of the value range for most of the metrics shown by both Standard Deviation and Range. This is not surprising given that the setup and business operations can vary significantly for micro-retailers and that % financial changes can swing in the extremes given the low order volume. Second, the majority of the retailers in the sample base have strong positive turnover growth as well as positive margins. Third, Cost of Goods for the products represent on average half of the selling price for the eMEs, or in other words, eMEs sell on average a product at twice the price of what it purchased for it. Fourth, there is a large difference between the average and median Gross Margin and Net Margin. This means that a typical eME in our data sample experience high costs outside of the actual product costs such as logistics and selling and general administration (SG&A) amounting to roughly 45% of their product selling price. For comparison purposes, the larger online clothing retailers such as Cellbes averages gross margin around 61% while achieving a net margin of 7.9% (Retriever Business, 2017). Fifth, equity ratio and quick ratio shows that the average eME is in a fairly stable financial situation. However, given the large std dev for quick ratio, a large portion of the sample (15 out of the 30) has less than 100% which means that they cannot cover their short term liabilities with their assets. Sixth, the operational turnover ratios for inventory and accounts payable show that the eMEs have fast inventory turnovers and are able to pay off their payables using the turnovers.

In a quick summary, the descriptive statistics for financial indicators reveal that the overall financial healthy of the sample data set is stable. However, there are several warning flags. Even though the average values are positive, the spread is large meaning that a large percent of the sample data set falls in the negative side of the spectrum. In addition, most of the eMEs are working with extremely low net margin meaning that the cash safety net is low and there is little opportunity to reinvest and grow. 8 out of the 30 eMEs have negative net margins, RoTA and RoCE meaning that they have just made large investments or that their costs are too high. It is more likely the second option due to the fact that 6 out of the 8 with negative margins also have very low negative RoTA/RoCE, which means that capital investments which should increase assets was not high.

Fig 4. Descriptive Statistics – IV Webpage Metrics

	Avg Click to Checkout	Pants	Tshirt (range, medium)	Long sleeve shirt	Jacket	Shoes	Certification Visibility	Num of Categories	Num of Articles	% Article in largest cat.	Content Amount	Orderliness	Ease of Navigation	Webpage Image Saturation	Color Scheme	Free Shipping	Free Shipping (Limit 500 kr)	FB followers	FB likes	Instagram follower	Twitter	Pinterest	youtube
Mean	7.1	745	394	768	1437	1177	0.3	2.7	1045	0.8	0.9	0.4	0.6	1.7	0.9	0.3	0.6	16486	17301	58058	0.3	0.3	0.3
Std Error	0.2	96	62	116	239	251	0.1	0.2	197	0.0	0.2	0.1	0.1	0.1	0.2	0.1	0.1	5603	5406	22326	0.1	0.1	0.1
Median	7.0	650	321	600	1000	750	0.0	3.0	590	0.8	1.0	0.0	1.0	2.0	1.0	0.0	1.0	3331	4425	5933	0.0	0.0	0.0
Mode	7.0	400	250	1200	500	600	0.0	3.0	#N/A	1.0	0.0	0.0	1.0	2.0	0.0	0.0	1.0	#N/A	#N/A	#N/A	0.0	0.0	0.0
Std Dev	1.2	371	246	508	986	832	0.5	1.3	1078	0.2	0.8	0.5	0.5	0.5	0.8	0.5	0.5	29647	29611	113840	0.4	0.5	0.5
Sample Var	1.4	137684	60648	257606	972978	691682	0.2	1.6	1162790	0.0	0.7	0.2	0.2	0.3	0.7	0.2	0.3	#######	#######	#######	0.2	0.2	0.2
Kurtosis	1.1	-1	8	2	0	1	-1.6	0.2	0	-0.9	-1.5	-1.8	-1.9	2.0	-1.5	-1.2	-2.1	10	9	3	-0.8	-1.6	-1.2
Skewness	0.1	1	3	1	1	1	0.7	0.6	1	-0.3	0.1	0.6	-0.4	-1.6	0.1	0.9	-0.3	3	3	2	1.1	0.7	0.9
Range	6.0	1200	1000	1950	3075	2500	1.0	5.0	3644	0.5	2.0	1.0	1.0	2.0	2.0	1.0	1.0	133690	135355	385921	1.0	1.0	1.0
Minimum	4.0	300	200	250	425	500	0.0	1.0	51	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	84	79	0.0	0.0	0.0
Maximum	10.0	1500	1200	2200	3500	3000	1.0	6.0	3695	1.0	2.0	1.0	1.0	2.0	2.0	1.0	1.0	133690	135439	386000	1.0	1.0	1.0
Sum	214.0	11180	6302	14590	24425	12950	10.0	80.0	31352	23.6	28.0	11.0	18.0	51.0	28.0	9.0	17.0	461609	519042	1509512	8.0	10.0	9.0
Count	30.0	15	16	19	17	11	30.0	30.0	30	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	28	30	26	30.0	30.0	30.0

A similar look at the descriptive statistics for the webpage metrics reveals how our sample eMEs have setup their webpages. Jackets and Shoes are the two most expensive product types but also showed the widest price range distribution. The typical eME requires 7.1 clicks from landing page to the final checkout screen. Their start page is more likely not to display a certification. The webstore contains an average of 2.7 categories with 1045 individual articles, out of which 80% are in the largest category. The individual webpage layout metrics reveal that eMEs tend to stay in the middle of all metrics except for image saturation where most display heavy number of images on their landing page. Free shipping is considered an exception and instead most offer free shipping as an extra incentive for orders above a certain value. The social media metrics show that Facebook and Instagram were by far the two most popular online platforms for eMEs to have a presence in with Instagram averaging almost 60 thousand followers and Facebook at over 16 thousand.

Correlations Analysis

Fig. 5 Correlation of Metrics

	Turnover change (%)		Return on total assets (%)		Return on Captial Employed (RoCE) (%)		Net margin (%)		Gross margin (%)		Equity ratio (%)		Quick ratio (%)		Inv / turnover (%)		Account Payable / turnover (%)	
	Multiple R / Corr	P-Value / Sig. F	Multiple R / Corr	P-Value / Sig. F	Multiple R / Corr	P-Value / Sig. F	Multiple R / Corr	P-Value / Sig. F	Multiple R / Corr	P-Value / Sig. F	Multiple R / Corr	P-Value / Sig. F	Multiple R / Corr	P-Value / Sig. F	Multiple R / Corr	P-Value / Sig. F	Multiple R / Corr	P-Value / Sig. F
Avg Click to Checkout	0.016	0.932	0.011	0.955	0.008	0.967	0.082	0.668	0.085	0.656	0.154	0.418	0.066	0.728	0.022	0.908	0.112	0.556
Pants	0.189	0.499	0.171	0.541	0.017	0.952	0.359	0.189	0.235	0.398	0.020	0.943	0.031	0.913	0.044	0.876	0.305	0.269
Tshirt	0.252	0.035	0.135	0.617	0.032	0.908	0.350	0.018	0.274	0.304	0.175	0.517	0.135	0.618	0.026	0.923	0.101	0.711
Long sleeve shirt	0.013	0.959	0.145	0.554	0.046	0.851	0.314	0.019	0.417	0.045	0.313	0.193	0.160	0.513	0.141	0.566	0.192	0.432
Jacket	0.098	0.709	0.211	0.416	0.013	0.960	0.457	0.065	0.328	0.199	0.232	0.371	0.160	0.539	0.354	0.163	0.415	0.098
Shoes	0.505	0.113	0.111	0.746	0.108	0.752	0.022	0.949	0.424	0.194	0.112	0.743	0.010	0.978	0.273	0.417	0.311	0.352
Certification Visibility	0.110	0.561	0.211	0.264	0.204	0.279	0.201	0.287	0.276	0.140	0.079	0.679	0.008	0.966	0.086	0.652	0.100	0.598
Number of Brands	0.137	0.688	0.661	0.027	0.684	0.020	0.454	0.161	0.663	0.026	0.437	0.179	0.052	0.879	0.495	0.121	0.232	0.493
Number of Categories	0.169	0.373	0.296	0.112	0.398	0.030	0.138	0.467	0.394	0.031	0.081	0.670	0.046	0.811	0.244	0.193	0.048	0.801
Number of Articles	0.168	0.374	0.131	0.491	0.229	0.223	0.090	0.638	0.273	0.145	0.099	0.604	0.018	0.924	0.242	0.198	0.143	0.452
% Article in largest cat.	0.043	0.820	0.113	0.552	0.155	0.415	0.170	0.370	0.327	0.077	0.110	0.563	0.102	0.592	0.141	0.458	0.026	0.891
Webpage Image Saturation	0.238	0.205	0.265	0.158	0.267	0.154	0.091	0.633	0.145	0.443	0.005	0.979	0.228	0.226	0.381	0.038	0.344	0.063
Content Amount	0.272	0.146	0.339	0.067	0.270	0.149	0.123	0.518	0.158	0.406	0.212	0.260	0.257	0.170	0.508	0.004	0.117	0.538
Orderliness	0.243	0.196	0.426	0.019	0.307	0.099	0.280	0.135	0.090	0.635	0.200	0.290	0.164	0.387	0.362	0.049	0.061	0.751
Color Scheme	0.273	0.145	0.156	0.410	0.095	0.619	0.224	0.233	0.137	0.469	0.353	0.056	0.239	0.204	0.079	0.680	0.018	0.924
Ease of Navigation	0.209	0.268	0.068	0.719	0.045	0.812	0.081	0.671	0.018	0.926	0.196	0.299	0.136	0.473	0.118	0.534	0.201	0.286
Free Shipping	0.325	0.080	0.024	0.899	0.102	0.593	0.214	0.257	0.047	0.806	0.169	0.373	0.173	0.360	0.242	0.198	0.180	0.342
Free Shipping (Limit 500 kr)	0.312	0.094	0.179	0.345	0.170	0.370	0.037	0.846	0.150	0.430	0.003	0.987	0.150	0.429	0.205	0.277	0.113	0.552
FB likes	0.367	0.054	0.054	0.778	0.020	0.916	0.146	0.440	0.293	0.116	0.055	0.772	0.033	0.861	0.283	0.130	0.172	0.364
FB followers	0.312	0.053	0.035	0.864	0.029	0.884	0.112	0.577	0.255	0.199	0.057	0.777	0.061	0.763	0.312	0.114	0.136	0.499
Instagram follower	0.681	0.011	0.360	0.071	0.199	0.329	0.347	0.082	0.218	0.286	0.207	0.310	0.226	0.267	0.394	0.047	0.040	0.846
Twitter	0.256	0.172	0.368	0.045	0.369	0.045	0.217	0.250	0.210	0.265	0.314	0.091	0.170	0.370	0.151	0.426	0.107	0.572
Pinterest	0.424	0.019	0.339	0.067	0.214	0.256	0.415	0.022	0.050	0.794	0.172	0.363	0.027	0.887	0.155	0.414	0.173	0.360
youtube	0.404	0.027	0.159	0.401	0.269	0.151	0.023	0.904	0.183	0.333	0.210	0.265	0.140	0.461	0.250	0.183	0.142	0.456

P-Value significant at 0.05 | Correlation >= 0.50

Having looked at the descriptive statistics, we will now look at the correlation results between the financial and webpage metrics (Fig 5.) Correlation is the extent to which two variables have a linear relationship with each other. It is useful because it can highlight predictive relationships that can be used in practice though it is not sufficient to positively infer a causal relationship by itself (more on this later in regression). The table gives a Multiple R value as well as the corresponding P-Value or Significance F for each pair of financial and webpage metrics. Keep in mind that multiple R value is the correlation between the individual sets of variables and ranges between 0 and 1. P-Value is the probability that the statistical summary is at least as extreme as the observed value assuming the null hypothesis to be true. The lower the p value the more statistically significant the observed multiple R value is, with a typical cutoff limit of 0.05 for significance.

What is immediately evident is that the large majority of the variable pairs show no significant correlations. Turnover shows 4 significant correlation pairs of which 3 are social media metrics. Instagram followers was by far the strongest correlated and most significant of them. RoTA and RoCE also showed some significant pairs, mostly for the number of brands category. Net margin and gross margin showed significant pairing with a few price categories and also number of brands/categories for gross margin. This makes sense given the fact that higher prices typically command better margins. Finally, Inventory turnover showed significance with 3 of the webpage layout metrics. This could imply that having the right layout helps to sell the inventory faster. However, one would also expect price metrics to have a strong significant correlation with fast turnover or that the webpage layout would have equally strong significance with turnover, but neither of these is the case.

Fig 6 T-test

	Turnover change (%)		Return on total assets (%)		Return on Captial Employed (RoCE) (%)		Net margin (%)		Gross margin (%)		Equity ratio (%)		Quick ratio (%)		Inventories / turnover (%)		Accounts Payable / turnover (%)	
	t Stat	P(T<=t) two-tail	t Stat	P(T<=t) two-tail	t Stat	P(T<=t) two-tail	t Stat	P(T<=t) two-tail	t Stat	P(T<=t) two-tail	t Stat	P(T<=t) two-tail	t Stat	P(T<=t) two-tail	t Stat	P(T<=t) two-tail	t Stat	P(T<=t) two-tail
Avg Click to Checkout	0.807	0.426	1.186	0.246	1.323	0.197	-0.009	0.993	0.162	0.873	1.321	0.197	1.335	0.193	-0.815	0.422	0.031	0.976
Pants	-0.531	0.604	1.226	0.242	0.894	0.387	1.083	0.299	0.869	0.400	0.480	0.639	-0.211	0.836	-0.244	0.811	1.157	0.268
Tshirt	2.548	0.023	2.048	0.060	1.082	0.297	2.453	0.028	1.547	0.144	0.799	0.438	0.481	0.638	-0.685	0.505	0.341	0.738
Long sleeve shirt	-0.342	0.736	1.866	0.079	0.956	0.352	2.344	0.032	2.473	0.024	0.620	0.543	0.757	0.459	-1.243	0.231	-0.225	0.824
Jacket	-0.111	0.913	1.646	0.121	0.999	0.334	1.827	0.088	1.785	0.094	0.175	0.864	0.331	0.745	-0.916	0.374	-0.167	0.869
Shoes	-1.226	0.251	0.970	0.357	0.820	0.434	0.982	0.352	3.715	0.005	0.934	0.375	0.485	0.639	0.645	0.535	0.589	0.570
Certification visibility	0.588	0.561	1.140	0.264	1.105	0.279	1.086	0.287	1.518	0.140	0.419	0.679	-0.043	0.966	-0.456	0.652	0.533	0.598
Number of Brands	-0.040	0.969	1.027	0.331	1.137	0.028	1.550	0.156	1.202	0.026	0.257	0.803	-1.923	0.087	3.151	0.012	-1.942	0.084
Number of Categories	1.678	0.104	0.818	0.420	0.682	0.501	1.151	0.259	1.601	0.012	0.336	0.739	0.432	0.069	-0.892	0.456	-1.055	0.188
Number of Articles	0.209	0.427	0.242	0.686	0.707	0.417	0.314	0.695	0.165	0.279	0.336	0.612	0.158	0.951	1.687	0.126	1.167	0.677
% Article in largest cat.	0.184	0.929	0.892	0.777	0.658	0.371	1.128	0.361	0.319	0.107	0.291	0.652	0.352	0.831	0.914	0.675	0.193	1.101
Webpage Image Saturation	0.466	0.292	0.757	0.422	0.564	0.100	0.312	0.658	0.638	0.474	0.041	0.802	0.084	0.400	-2.351	0.023	0.504	0.156
Content Amount	0.456	0.308	0.057	0.307	0.791	0.093	0.587	0.448	1.055	0.223	1.425	0.078	0.671	0.124	2.346	0.044	0.228	0.441
Orderliness	0.688	0.243	2.078	0.022	0.650	0.114	0.752	0.053	0.118	0.544	0.803	0.259	0.600	0.177	3.045	0.034	0.296	0.698
Color Scheme	0.811	0.188	1.181	0.437	0.537	0.369	0.833	0.140	0.735	0.222	0.356	0.135	1.503	0.286	0.596	0.728	0.015	1.068
Ease of Navigation	0.641	0.218	0.235	0.757	0.000	0.761	0.046	0.589	0.096	1.088	1.119	0.226	1.060	0.299	0.731	0.575	0.386	0.211
Free Shipping	0.250	0.211	0.108	1.052	0.281	0.779	1.493	0.313	0.320	0.827	1.248	0.429	0.762	0.178	0.860	0.314	1.211	0.483
Free Shipping (Limit 500 kr)	0.341	0.236	0.104	0.400	0.291	0.537	0.027	0.846	1.077	0.639	0.014	0.785	0.787	0.565	0.060	0.287	0.768	0.687
FB likes	1.079	0.412	0.318	0.813	0.104	1.000	0.151	0.669	1.655	0.167	0.105	0.564	0.095	1.057	1.743	0.234	1.149	0.523
FB followers	0.050	1.107	0.048	1.099	0.140	0.839	0.055	0.558	1.048	0.080	0.025	0.956	0.216	0.990	0.863	0.084	0.868	0.313
Instagram follower	2.152	0.012	1.488	0.618	1.145	0.269	0.586	0.073	0.949	0.399	0.459	0.351	0.038	0.080	-2.566	0.020	0.192	0.613
Twitter	0.445	0.224	-2.302	0.049	2.125	0.026	0.169	0.090	0.529	0.355	0.893	0.093	0.117	0.224	0.975	0.292	0.760	0.766
Pinterest	-2.063	0.015	1.681	0.315	1.437	0.262	2.621	0.020	0.361	0.696	0.710	0.548	0.083	0.772	0.017	0.318	0.541	0.240
Youtube	2.982	0.038	0.306	0.628	0.957	0.091	0.107	0.783	0.125	0.515	1.025	0.087	0.041	0.321	0.881	0.721	0.024	0.529

P-Value significant at 0.05

I perform a two sampled t-test assuming equal variance here to confirm and validate the correlation results from Fig 5. T-test measures if two sets of data significantly different from each other. As mentioned earlier, this is a triangulation method for increasing internal validity of the correlation results. The goal of this test is to see whether significance can be seen for the same pairs of financial/webpage metric variables as in the earlier correlation test. In this t-test, the sample set is sorted by the financial and webpage metrics. For each metric, the sample data set is divided into two sets, one with the lower half of the sorted values and the other with the higher. T stat and P value for two tails is obtained for each of the metrics in the other group based on the sorting. The t stat tells us the magnitude of the difference observed for each of the metrics between the two sorted groups with negative and positive values indicating the direction of the difference in the sample means. P value again, tells us whether the magnitude is significant and ranges between 0 and 1. Looking at a comparison of the results of t-test and correlation, we see that they match up to a large degree and therefore assume that the correlation results are valid.

Regression Analysis

While correlation quantifies the degree to which variables are related, it does not imply cause and effect. Regression on the other hand, is a predictor model using best fit methods to predict the dependent variable (DV) based on the independent variables (IV). It implies causation and can add value to this study by letting us know whether any of these website metrics actually causes the financial results we see. Before we look at the results of the regression, we first need to test for collinearity. Collinearity measures the strength of the confounding factor between IVs. This is a phenomena where two or more IVs are highly correlated and that the DV cannot be fully explained by just looking at the individual IVs but rather all the DVs and their intercorrelations. Collinearity does not reduce the predictive ability nor reliability of the whole model. Rather, it only affects calculations for individual IVs. Thus, this is useful to look at in order to 1.) provide clearer recommendations for future study directions 2.) give a unbiased regression coefficient for individual IVs. The results of the collinearity are in Fig 7.

Fig 7. Collinearity

Independent Var.	*VIF*	VIF Sqr R	Independent Var.	*VIF*	VIF Sqr R	Independent Var.	*VIF*	VIF Sqr R
Pants	4.0	2.0	Certification Visibility	3.6	1.9	Free Shipping	5.7	2.4
Tshirt	3.1	1.8	Number of Categories	5.3	2.3	Free Shipping (Limit 500 kr)	4.4	2.1
Long sleeve shirt	3.6	1.9	Number of Articles	5.2	2.3	FB followers	5.7	2.4
Jacket	4.0	2.0	% Article in largest cat.	3.0	1.7	FB likes	5.1	2.3
Shoes	3.7	1.9	Content Amount	7.0	2.6	Instagram follower	3.8	1.9
Avg Click to Checkout	2.1	1.5	Orderliness	6.2	2.5	Twitter	2.8	1.7
			Ease of Navigation	2.1	1.5	Pinterest	3.0	1.7
			Webpage Image Saturation	2.7	1.6	youtube	3.0	1.7
			Color Scheme	3.2	1.8			

Explanation

Higher than avg collinearity value

The collinearity value is produced using the Variance Inflation Factor calculation (VIF). The square root of VIF shows how much greater the standard error is, versus what it would be if that IV were uncorrelated with the other IVs in this model. All IVs with a higher than average square root VIF value

are shaded in the figure. Looking at the results, it is not suprising that the various pricing categories exhibited high collinearity. Stores that sell higher priced clothing products tend to list high prices for all their major categories and vice versa. Similarily, the number of categories and articles also show high collinearity since more articles have a positive correlation with more product categories. Content amount and orderliness tend to have negative correlation as more content made the webpage more chaotic/cluttered. Finally, the free shipping IVs are essentially the same data but with different cutoff points while FB followers tended to like the FB pages of the webstores. The remaining IVs shows little to moderate collinearity meaning that it is safe to assume that these variables have negligible influence on each other and that any regression calculations made on them is "clean".

Fig 8. Multiple Regression

	Turnover change (%)	Return on total assets (%)	Return on Captial Employed (RoCE) (%)	Net margin (%)	Gross margin (%)	Equity ratio (%)	Inventories / turnover (%)	Accounts Payable / turnover (%)
R-Squared	0.70	0.94	0.89	0.86	0.86	0.81	0.53	0.44
Intercept	-155.47	198.22	1119.05	47.99	105.15	214.60	31.72	-0.63
Avg Click to Checkout	32.35	-13.32	-86.25	-2.96	-2.15	-15.05	-0.03	2.01
Certification Visibility	86.89	-17.01	-45.12	-0.87	-4.10	-37.78	5.41	0.55
Number of Categories	-34.31	-17.77	-126.94	-2.86	-5.45	0.86	-1.34	-2.29
Number of Articles	0.01	-0.02	-0.14	-0.01	-0.01	-0.01	0.00	0.00
% Article in largest cat.	15.72	-38.82	0.79	-17.26	-26.28	-43.81	3.99	-7.84
Content Amount	-11.55	64.78	407.91	18.71	12.84	26.55	12.58	-4.23
Orderliness	-69.12	-107.99	-736.62	-26.68	-22.10	5.31	-7.71	4.89
Ease of Navigation	1.95	-44.76	-394.87	-6.18	-10.04	-11.67	-8.91	3.90
Color Scheme	14.52	-17.64	-73.90	-8.08	-11.52	-33.74	-6.81	2.44
Free Shipping	85.19	77.20	599.50	18.65	24.85	-3.77	1.72	-5.52
Free Shipping (Limit 500 kr)	-63.42	-24.51	-263.07	-4.18	-14.08	15.38	1.63	-0.74
FB followers	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Instagram follower	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Twitter	19.48	-7.38	-126.61	4.34	25.11	-5.39	-4.81	-1.26
Pinterest	33.66	-9.54	-119.94	2.14	-15.23	-6.60	-14.13	-1.07
youtube	57.29	-48.49	-328.97	-14.17	-10.09	-35.04	-7.68	2.23

Fig 8. Shows the results of the multiple regression calculations on the DVs based on the IVs. Again, each column with the DVs across the top should be read as a separate regression calculation with the Intercept and the coefficient for the individual IVs in the respective row cells. The R-Squared value for each column tells us how much of the variation in the actual DV results are explained by the regression calculation on the IV set of variables. In general, higher R-squared value means better model fit for the data. Looking at the results, RoTA, RoCE, Net Margin and Gross Margin produced the highest R-Squared value. These four DVs also produced the lowest and statistically significant P-Value of under 0.05. This means that these webpage metrics taken together can be a good determinant of a eME's financial efficiency. As mentioned earlier, financial efficiency indicators such as returns and margins are important since it allows the company to grow and reinvest the earnings (Ribera et al. 2016). The regression showed lower R-squared values for turnover, leverage and operational indicators. Leverage indicators are dependent on how a firm is financed and thus, it is not surprising that it received low R-Square value. Turnover and the operational indicators are all based on gross sales to varying degree, so

a relatively low R-squared value for Turnover naturally lead to low R-squared values for the operational metrics. The low values for turnover and turnover related metrics tells us that gross sales can not be reliability assumed/or predicted based on the webpage metrics.

Hypotheses

Based on our analysis, we can formulate the following hypotheses by looking at which metric pairs had strong and significant correlations, and which DVs showed highest prediction value. They are as follows:

Hypothesis I: The higher the clothing/accessory product prices, the higher the margin will be for eMEs.

Hypothesis II: The more product categories that eME offers, the lower the gross margin and RoCE

Hypothesis III: The more brands that eME offers, the lower the RoA and RoCE

Hypothesis IV: The larger the eME presence on social media platforms (FB, Instagram, pinterest, youtube, etc), the higher the turnover.

Hypothesis V: Financial profitability and efficiency is predictable and can be directly influenced by having the right combination of website factors. Turnover, leverages and operational efficiency is not predictable and cannot be directly influenced just by website metrics.

Discussion

Putting the results of the analysis in the context of the SMM model, we can make the following statements. Social media engagements is clearly important to eME's service offering and sales growth as it straddles and fulfills multiple influencers. First, social media can add relationship benefits to customers. Partner selection is a critical part of competitive strategy and those that offer superior benefits are highly valued and more likely to gain commitment (Morgan & Hunt, 1994). Social media has been studied and identified as a type of complementary consumption through its ability to empower and inform (Yuksel et al., 2016). This socializing aspect compliments the main purchase consumption and increases consumer response through its empowering effects. Neither can we ignore its potential in creating online brand communities as multitudes of studies have shown the strong presence of brand communities on social media platforms and the strong connection to desirable outcomes such as repurchase intentions and word-of-mouth (Ho & Wang, 2015). Besides added relationship benefits, social media can also increase termination cost. This goes hand in hand with relationship benefits as increased relationship benefits will also increase termination cost or the cost to the customer if they terminate/switch to another store. Online communities engages customers on a deeper personal level and over a longer period of time as opposed to the immediate short termed pure purchase based relationships. This builds commitment to maintain the relationship and increases termination costs. Third, shared value is also impacted by social media. Values are the "extent to which partners have beliefs in common about what behaviors, goals, and policies are important or unimportant….and right or wrong" (Morgan & Hunt, 1994, pg 25). Firms can extend its values through social media by guiding/convincing customers on its beliefs and policies (De Jone et al., 2013). Firms likewise can also learn and be informed of customer values through social media. Not only is there bilateral engagements on values between eMEs and their customers, but also social media opens up the relationship to external influences. Thus social media is both a channel/enabler and also an active participant in the

shaping of shared values. Fourth, social media is a key player in communications. We have already seen industry studies which details the large role that social media sites play as a information source for consumers in the online purchase process. As already mentioned, social media can not only communicate tangible relationship benefits such as products and price but also company/brand values. If we now take a look at the three SMM influencers based on S-D logic, we see incredible amount of similarity with the aforementioned CTT based influencers in the context of social media. Social media can be considered as an example of service attachment through the socializing and community building benefit it provides. Thus, there exists a link between relationship benefits and service attachment in the form of social media. Customer maximization which is about learning, engaging and enabling customers in the value co-creation process certainly has a direct link with social media since it allows for and promotes engagements, learning and feedback. At the same time, customer maximization can also be considered as a type of relationship benefit and by inverse extension, termination cost. A customer centric belief/policy is also a value which can be shared by eMEs and its customers. Finally, customer maximization requires communications. Thus, links exist between customer maximization and multiple CTT influencers. The third S-D logic influencer, clear value proposition is based on relationship benefits as a prerequisite. Benefits or value must exist in order for the eME to communicate/propose it. To propose value, the eME must communicate. Shared values could also be part of the value proposal to customers such as when firms communicate about their eco-sustainability policies for their products. Here again, we see multiple links between influencers of both S-D logic and CTT in the SMM model.

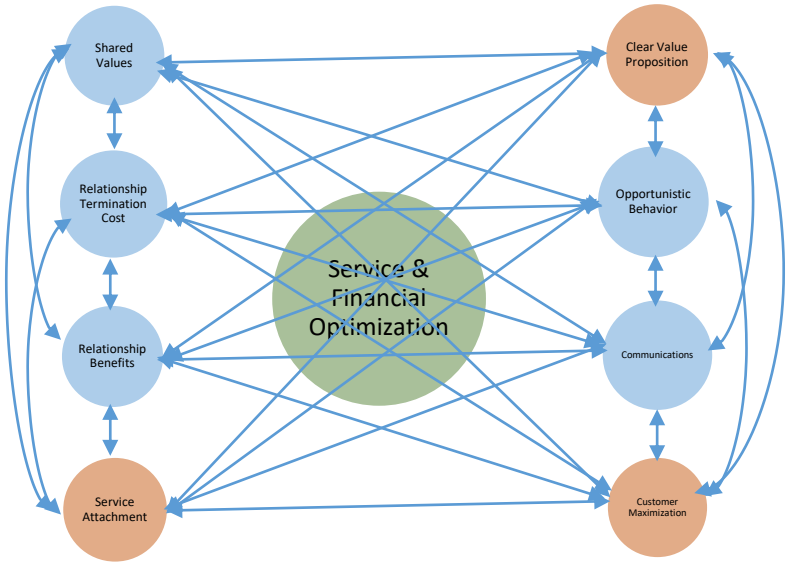
A second interesting point from the analysis is the fact that when all the marketing factors are combined, only profitability or financial efficiency indicators could be reliability assumed/predicted. All other indicator types including sales/turnovers were generally less correlated and predictable using the marketing metrics in this study. Going back to our SMM model, the central stated outcome or goal is service maximization based on the S-D logic premise that service is the fundamental basis of exchange. However, this study also has a central interest in the financial performance of the eMEs since the goal of the study is to determine correlations between financial performance and marketing/website metrics. If we look at all the marketing metrics studied here, we see that each one can be subsumed under one or more of the existing influencer in the SMM model. Product offer related and ease of use metrics such as pricing and number of categories and brands can be considered as examples of relationship benefits. Website visual metrics is a type of communications. Service offer related metrics such as free shipping can be considered as both relationship benefits and service attachment. Finally social media metrics have connections to a number of the influencers as we have already seen earlier. Given that all website and marketing metrics are related to one or more of the influencers and our study goal, it is more fitting to change the central outcome of the SMM model to service and financial optimization. This is in keeping with analysis results that it is financial optimization and not maximization which shows highest correlation and predictability.

The third and final point of discussion is related to the analysis results obtained for the number of categories and brands metrics. This does not necessarily impact the existing SMM model but it is nevertheless an important point to discuss due to the correlation results. As written in hypothesis II and III, the analysis results show that offering higher number of both categories and brands is strongly correlated with lower financial profitability and return ratios. A possible explanation could be due to the lower average transaction volumes when buying/sourcing for large number of product types and brands making individual purchases more expensive for the eME. Also, more diverse product assortment could

mean longer shelf times for average products to be sold and/or more costly order on demand from eMEs to suppliers upon order registration. It could also be a matter of clear value proposition. Half of the eMEs with higher than average number of product categories and/or brands in the study group have low scores on orderliness and ease of navigiation metrics. Scholars and existing academic articles point out that firms that develop clear and compelling value propositions will have better organizational performance, gain competitive advantage and improved financial performance (Payne & Frow, 2014). eMEs need to present clear solutions to consumer needs by showing them what benefits they can offer. This means having a well structured and easy to navigate website with total price, shipping and return, and payment information clearly stated. It also means having an product assortment that is easy to define and understand. Increasing the number of categories and brands could be detrimental to the shopping experience especially if it clutters the website or if the products seem incompatible, mismatched or out of place.

Given these discussions and revelations based on the analysis results, I propose an updated Service & Financial Optimization Model (SFOM) that reflects these new relationships and categorizations.

Fig 9. SFOM



Changes have been made to the influencers to show the interconnected relationship between all influencers. The central outcome of the model is changed to service and financial optimization to reflect the analysis results that efficiency is more correlated to marketing website metrics. Finally, unilateral relationship arrows from influencers to the central outcome have been removed with only the central positioning to highlight the fact that service and financial optimization is not just a final outcome to be evaluated and determined based on individual cause and effect relationship with the influencers, but rather a part of and consisting of the individual influencers.

Practical Implications

The practical implications from the SFOM for eMEs are several. Pricing alone does little to affect sales as seen from the analysis. eMEs should not adopt a competitive pricing strategy with the sole purpose that it should translate to higher brutto sales. Lowering the prices will in fact hurt the bottom line rather than help increase the top line. The same is true for product assortment strategy. eMEs should not mindlessly expand product offerings with the expectation that it will increase sales. Product expansions could lower profitability and financial returns, same as price reduction strategy. The SFOM tells us that relationship benefits such as lower prices and broader product choices are interconnected with multiple other influencers such as clear value proposition, communications and customer maximization. Service and financial optimization can only be determined by looking at the combination of influencers as a whole and not by the contributions made by single influencers. eMEs need to learn from and engage with customers as part of the customer maximization in order to understand what relationship and offer benefits they desire. If competitive prices and broader assortments are among the benefits that customers seek, then and only then should the eME take the appropriate strategy(s) to acquire them. Once the benefits are procured, eME must propose a clear value proposition that is easy and fast to understand. This can be accomplished for example by making sure that the websites are easy to navigate and that the content and visuals match the customer's taste as well as the brand image. All of this is meanwhile governed and enacted through communications in accordance with the original influencer on customer maximization.

Another practical implication is that social media should be used actively as an engagement, information dispersement and brand/online community building tool. Not only did social media have the highest correlation with top line sales out of any metric types, it has also been consistently named among the top information source and preferred marketing channel by consumers as well as being the subject of much academic study and support. We saw how social media fulfills a large number of rolls and connects to virtually all influencers in SFOM. eMEs need to stay active on social media platforms by posting news, inspirations and other updates. eMEs also need to use social media platforms as a way to contact its customers and receive feedbacks. Even more so than just a communication platform, eMEs must adopt the mindset that social media is a complementary service attachment to the tangible products in accordance to the S-D logic's service premise. Social media needs to complement the product offering and be a central part of the consumer shopping experience.

The question of whether to offer free shipping or returns, and credit payment options is still very much up in air and largely dependent on the industry, market and consumer expectations. These functional metrics have shown either little/insignificant correlation to any of the financial metrics or they are near uniformly used/disregarded by the eMEs in the sample set which invariably leads back to the same conclusion of statistical insignificance for correlation. The approach that eMEs should use here should be similar to pricing and assortment strategies. eMEs should identify what the customers want and what they expect, then offer benefits that address those needs. A new functional service such as free shipping or express shipping should not be offered just because competitors are offering them or that the firm wants to increase sales. It is much more important that functions and services chosen to be offered should be clear and understandable as to the benefits and values they bring. This is echoed in the 2016 e-barometer report that the number of shipping options is less important than clear information on expected delivery date for each shipping method, and also that clear information on total price is just as important as the actual product price.

Finally, it is important to mention that there is no magical pill for increased sales. The analysis results shows that marketing/website metrics can lead to greater profitability but not necessarily increased sales. Profitability and high financial efficiency/return is arguably more important for eMEs, especially new eMEs since positive bottom line means ability to pay one's expenses and stay solvent. It also means leftover cash to be reinvested into the business to grow. eMEs must consider what is most important to them. If it is short term sales increase or to clear out inventory, then taking a pricing cut could be a viable solution. Long term relationship building and growth requires trust and commitment as seen in the CTT model, requiring the five CTT based influencers in the SFOM. Regardless of short or long term goal, eMEs must avoid taking opportunistic behavior in its business practices as even short term gains can be more than offset by negative word of mouth and PR.

Conclusion

eMEs/MEs serve a important roll in the society as a catalyst for new product, service and technology innovations (Ghosh, 1994). They help drive greater use of innovative online based retail models and creative ways to using data and technology to enhance how online retailers serve customer's needs. For example, eMEs like Stitch Fix, is making its online business more personal by using mobile apps to let its customers share photos of themselves in clothes they like which then gets feedbacks from assigned stylists (DigitalCommerce, 2017). Not only are they a catalyst for innovation and improvement, they are also an important employment force and contributor to the local economy. Supplier networks, consultants and other actors in the value chain gets built around them and the positive economical effects is multiplied. More attention is needed on them from the retail industry in order to foster their growth. More studies are also needed on them in academics to better understand why they fail and succeed in different retail sectors and markets.

In this study we made both theoretical and practical contributions through analysis of a sample set of Swedish eMEs in the clothing and accessories sector. Our study identified and organized a core set of marketing and website metrics and studied how they correlated to the financial performances of the individual eMEs. We defined a new SFOM model that linked service and financial performance to influencers from both S-D logic and CTT. In this way, SFOM was able to integrate both the service based value creation as well as the consumer behavioral and marketing relationship perspectives in a single eME performance framework. Practical contributions comes from the marketing/website metric specific insights that provides guidance on marketing and communication approaches.

The study answered the research question "what webpage and social media marketing factors do profitable eMEs have in common?" We found that not all webpage/social media factors had significant correlation with profitable eEMs, regardless if the definition of profitability is brutto sales, net margins, returns or other ratios. We did find that pricing and number of categories and brands had strong correlation with margins and return ratios. Higher pricing were more commonly found among eMEs with higher margins and returns while higher number of categories/brands were more likely found in eMEs with lower margins and returns. Webpage visuals were strongly correlated with inventory turnover ratio. Cleaner, well organized homepages with high visual contents tended to be found in eMEs with higher inventory turnovers. Finally, social media was found to have significant correlation with brutto sales growth. Higher number of likes or followers as well as active engagement were

strongly seen in eMEs with higher sales growth. However, not all social media platforms are created equal and some such as Twitter was seen to be less impactful than others like Facebook and Instagram.

Our study has also highlighted interesting points for future research and discussion. What are the different social media strategies that are relevant for eMEs and how should eMEs best use social media? What are the differences between the different social media platforms and which one(s) should eMEs choose and for which sector and market? How does other digital marketing factors not covered in this study such as push marketing through sms and email affect the financial performance? What special considerations need to be given to operational factors such as organizational structure, management and supplier relationship in order to achieve faster growth and/or financial efficiency? Is there such a thing as an optimal balanced point between sales and profitability for product metrics such as price and assortment mix for individual sectors? More research will be needed to provide answers to such questions. This study provides a first step towards a more structured and academically rigorous approach to the topic of marketing relationship and effect to eME performance.

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