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THE ROLE OF SOCIAL MEDIA AND PRODUCT DIFFERENTIATION IN ETSY MICRO-MANUFACTURING SHOPS

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ABSTRACT

This research presents an analysis of online micro-manufacturers who sell their handmade and individually customized products by means of the Internet. Using extant literature in the areas of social media and long-tail marketing, this study develops a theoretical model of micro-manufacturing item sales success. In this model, we posit that higher average sales prices for items are associated with the dual aspects of social media proficiency and hyper-differentiation. To examine this model, we present an empirical analysis of a dataset consisting of the marketing and sales activities of 1,386 micro-manufacturers within Etsy, an online commerce platform. Results of the analysis show that micro-manufacturers who achieve greater social media recognition and those who leverage their core competencies around handmade and customized products command higher product sales prices. Therefore, our study offers insights for existing micro-manufacturers and researchers interested in examining the way that niche market micro-manufacturers achieve success online.

Keywords

Micro-manufacturers, long-tail marketing, hyper-differentiation strategy, social media, 3-M framework

INTRODUCTION

Founded in 2005, Etsy is an online marketplace for the sale of predominantly hand-made goods (Smith, 2008) and allows micro-manufacturers to set up a virtual storefront (Walker, 2007). ‘Micro-manufacturers’ create highly customizable and individualized products and the Internet has facilitated the cultivation of their customer base. In the United States, the term micro-enterprise (or micro-manufacturer) can be applied to organizations that have 5 or fewer employees including the owner (U.S. Small Business Administration, n.d.). These types of businesses made up 88% of approximately 28 million U.S. companies in 2013 (Viek, 2013) and grew to 92% in 2014 (Association of Enterprise Opportunity, 2014). According to Etsy.com, Etsy facilitated \$2.39 billion in merchandise sales in 2015 by supporting 1.7 million active sellers and 26.1 million active buyers. Given this economic potential, it is important for researchers to examine the ways in which micro-manufacturers utilize the scaling opportunities of online marketplaces in order to increase their customer base and support their selling activities. This is especially true given the increasing pace of online commerce, with consumers becoming more comfortable with online shopping. In fact, recent research has shown that electronic commerce is beginning to outpace traditional in-store shopping (Berk, 2016). As their familiarity with online retailing has increased, so to have consumers come to value the extreme degree of product variety available online. Today’s consumers are interested in unique items that stand out, rather than items that are cookie-cutter created in a large-scale retail manufacturing plant (Paul & Hogan, 2015).

Traditional retailers are being encouraged to innovate in their product offerings in order to differentiate themselves from competitors and gain a competitive advantage (Simpson, Ohri, & Lobaugh, 2016). This represents an opportunity for micro-manufacturers who can capitalize on this desire for product hyper-differentiation and carve out a space in online marketplaces where they are known for creating unique items that cannot be duplicated in traditional stores. When operating online in a global marketplace, the resource-constraints placed on businesses of this size pose significant challenges. With limited resources and often-times little training, micro-manufacturers must find a way to market to their clientele and make their products stand out amongst the crowd.

In this study, we examine 1,386 Etsy stores to better understand the nature of successful micro-manufacturing. The study relies on two theoretical perspectives – Social media and hyper-differentiation. First we elucidate the impact of micro-manufacturer presence on social media using the 3-M framework (Gallaughier & Ransbotham, 2010) which provides a structure to examine how organizations manage communication and interaction with their customers in support of developing a deeper, consistent relationship with expectations of marketplace returns. Second, we review concepts from long-tail marketing which highlight the value in focusing on specialized and differentiated services and products that generate high-value demand (Lew, 2008). Third, we analyze data collected, assess the applicability of our theoretical model, and discuss the implications of our finding for practice and academia.

THEORETICAL MODEL AND BACKGROUND

Figure 1 presents our theoretical model for the impact of micro-manufacturer social media interaction with customers and hyper-differentiation of products on sales prices of products. In the next section, we elaborate the meaning of each aspect and derive hypotheses based on extant literature.

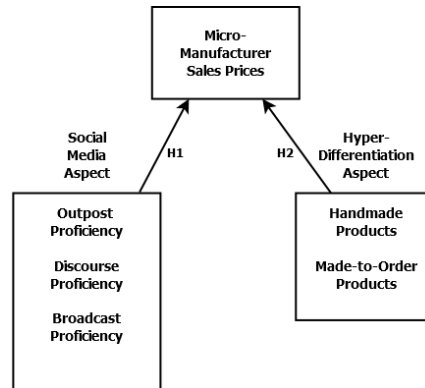


Figure 1. Theoretical Model

Social media aspect

Online platforms like Etsy provide micro-manufacturers with the ability to engage in several types of social media marketing. According to the 3-M framework (Gallaugh & Ransbotham, 2010), social media marketing relies on megaphone, magnet and monitor activities. Megaphone activities broadcast company messages to the wider customer base. Magnet activities are designed to draw customers into the Etsy platform. Monitor activities allow companies to keep track of the wider conversation occurring between customers in social media platforms. Developing a 3-M framework is a costly and expensive process. Realistically, a true 3-M implementation is beyond the means of many micro-manufacturing organizations. Since these organizations are very often small organizations with only a few employees, they typically do not have the advertising budget or means to create traditional megaphone activities, or set up their own monitoring platforms. However, that does not mean that they do not take advantage of 3-M concepts. Through the use of social media platforms, micro-manufacturers have the ability to engage in 3-M activities.

Megaphone as Broadcast Proficiency

The Etsy online platform gives voice to many micro-manufacturers operating within its platform, enabling them to share their message outside local boundaries. First, Etsy provides micro-manufacturers with the means to broadcast messages to their existing customers, as well as make some limited broadcast message attempts to new customers. Megaphone activities represent the primary method by which micro-manufacturers educate current and potential customers (Aaker & Biel, 2013). Television, radio and print channels have had decades to understand the downstream effect of these types of efforts (Corcoran, 2009). For example, there is a known effect on customers' familiarity with brands and organizations stemming from exposure to company messages, and this effect is understood to increase with the number of exposures (Bucklin & Sengupta, 1993). We conceptualize micro-manufacturers' ability to effectively communicate with existing and new customers using features and functionality on the Etsy platform as 'Broadcast Proficiency.'

Magnet as Outpost Proficiency

Micro-manufacturers also have the ability to create 'brand outposts' where they can attract and draw in new customers. This magnet ability is accomplished through creating a cross-platform presence on other social media platforms in order to maximize the likelihood of customers coming into contact with their brand and broadcasted messages. In the case of Etsy shops, it is beneficial to also have a presence on another social media platform that encourages unique representations of ideas and product integration. For example, Pinterest is a content-based network (CBN) that displays and supports the sharing of pictures and videos related to commercial products (Church, Iyer, & Zhao, 2015). As such, Pinterest is a natural partner to presenting the highly, customizable products that Etsy micro-manufacturers produce. We conceptualize micro-manufacturers' presence on Pinterest as a way to draw in customers to their Etsy shop from another social media platform as 'Outpost Proficiency.'

Monitor as Discourse Proficiency

The monitoring aspect of the 3-M framework is concerned with the discourse that exists between existing customers. It refers to how much or how often customers are talking about a micro-manufacturer's shop or products. In social media platforms,

customer-to-customer interactions often leave evidence in the form of socially-earned media. There are a number of reasons why this socially-earned media is reliable predictor of future sales. First, socially-earned media is an important component of firm reputation (Luo, Zhang, & Duan, 2013). Socially-earned media has the advantage of spreading through naturally influential channels (Stephen & Galak, 2012), such as among friends or interested peers. As a result, the message carried by socially earned media may be highly trusted and therefore influential (Chu and Kim 2015). The mode of distribution exhibited by socially earned media also gives it the ability to reach more selective pockets of interested users than typically observed with other media types (Luo et al., 2013). Finally, socially-earned media may also benefit from the effect of an information cascade. Information cascades occur as a message is passed on from one person to another (Bikhchandani, Hirshleifer, & Welch, 1992). With each step in the diffusion of the information, new network links open up so that information can progress faster and faster. Eventually, the number of nodes for information diffusion reaches a critical mass, and information diffusion occurs. Within the CBN context, sharing and distributing socially-earned media represents a fundamental aspect of usage. We conceptualize the communication between customers on the niche products produced by Etsy micro-manufacturer as ‘Discourse Proficiency.’

The social media aspect highlights how Etsy micro-manufacturers are able to command higher sales prices for their niche products. Micro-manufacturer proficiency in communicating to customers, drawing in customers, and facilitating discussions between customers allows them

Thus, we hypothesize that: ***H1: The social media aspect of micro-manufacturers is associated with increased sales price.***

Long-Tail Marketing through Hyper-differentiation

Micro-manufacturers are well suited to customize their products, allowing them to hyper-differentiate customers into any number of sub-groups. This approach is an example of ‘long-tail marketing’ where an organization focuses on reaching an alternate market of niche customers that are interested in highly customizable products and who access these products through highly targeted searches and personalized recommendations (Anderson, 2004; Chen, Chiang, & Storey, 2012; Lew, 2008). Extant research highlights that hyper-differentiation offers favorable benefits for customers. Customers are able to access a greater variety of products (Lew, 2008) when they are not mass-produced like other large-scale manufacturing or retail organizations. Within the Etsy platform, micro-manufacturers primarily achieve hyper-differentiation through two means – Handmade products and Made-to-Order products.

Handmade products

Etsy micro-manufacturers specialize in creating niche products that are not mass-produced items. This strategic approach is beneficial to micro-manufacturers as they are simultaneously creating unique products and creating a customer base that is interested in purchasing these products. The concept of handmade products can be controversial as in today’s technologically advanced and industrialized society, there are few purely handmade items that exist. Some level of machine work may be involved in the core components of a product, such as beaded jewelry made by hand where the beads were originally created by a machine. However, we adopt the definition of a handmade product as those that are “presented to consumers as being made by hand or a hand process and not by a machine or a machinal process” (Fuchs, Schreier, & van Osselaer, 2015, p. 99). Consumers get a sense of the “emotional investment that handmade producers put into their production process and their product” and are willing to place additional value on the product on top of its core production value (Fuchs et al., 2015, p. 100). Research has shown in particular that customers indicate stronger purchase intentions and are willing to pay more for handmade gifts (Fuchs et al., 2015). Within Etsy, many micro-manufacturers have made a concerted effort to capitalize on the strategic focus on high-value sales, rather than high-volume sales. We conceptualize these ‘Handmade Products’ as a way for Etsy micro-manufacturers to create clear distinctions between their products and those of other organizations through highlighting the unique, handmade aspects of their product.

Made-to-Order products

Micro-manufacturers are also experts in the area of producing made-to-order products. Made-to-order products benefit from being matched directly to the specifications of the individual consumer, which allows for a “closer match of products to user preferences, ... [resulting in] a higher willingness to pay [for the product]” (Randall, Terwiesch, & Ulrich, 2007). Incorporating individual consumer input into the product design has become a possibility for organizations, large or small, due technological advances. Challenges exist for large organizations, however, in terms of integrating large-scale customization into their carefully controlled manufacturing processes. Herein lies an opportunity for Etsy micro-manufacturers, who can leverage their small size and adaptability to provide potential consumers with items that are not only uniquely handmade, but are also made to the consumer’s specifications. For example, consumers are able to select the color scheme and materials used in the making of many handmade items, select from numerous customization and personalization options, thus increasing the value of the product and allowing Etsy micro-manufacturers to command a higher item sales price. We conceptualize these ‘Made-to-Order

Products' as a way for Etsy micro-manufacturers to create customized and personalized products based on customer design input and specification requests.

Therefore, we hypothesize that: **H2: The hyper-differentiation aspect is associated with increased sales price.**

DATA ANALYSIS

In order to analyze our theoretical model, we collected data from Etsy, one of the largest and best-known online outlets for micro-manufacturer commerce. To collect the data, web-scraping applications were developed using Scrapy, an open-source web-crawling framework based on the Python coding language. Due to the size of Etsy, it was not feasible to include every Etsy shop. Shops were therefore selected using a semi-random sampling approach. First, a web-crawling application compiled a list of URLs for a large number of Etsy shops. A random sample was then taken from this list, resulting in a final sample size of 1,386 Etsy shops ($n=1386$).

Our variables of interest were operationalized using publicly available information pertaining to each Etsy shop. The 'Handmade Products' construct was operationalized as a ratio of the number of items for sale that were flagged as handmade divided by the total number of items for sale. The 'Made-to-order Products' construct was operationalized in the same way, as the ratio of items flagged "made-to-order" divided by total items. Discourse Proficiency was operationalized as the average star rating for customers who wrote reviews for a particular Etsy shop. In this way, discourse proficiency is similar to metrics of positive "word-of-mouth" communication. Broadcast Proficiency was operationalized as the average number of views for all items in an Etsy shop. To operationalize Outpost Proficiency, we cross-referenced our Etsy shops with the social network Pinterest. Shops that also maintained an outpost presence in Pinterest were assigned a Boolean value of one, while shops lacking a Pinterest presence received a zero. To further analyze the role of outposts, we also investigated whether there might be a potential interaction between outpost presence and broadcast proficiency. For this reason, a multiplicative interaction term was also created for item views and outpost presence. In addition to these variables of interest, we also collected data on a number of demographic and control variables for each shop, including shop age, reputation, size, country, and total sales volume. Most shops were over 5 years old ($m=5.92$ years) and most had good reputations (average 4.7 out of 5 stars). Shops had an average of 319 distinct items for sale, with an average lifetime count of 6,108 sales.

In this analysis, we are interested in examining the impact of our variables of interest on average sales price. Consistent with much past research that examines sales prices, we first log transformed the average price variable. All of the variables of interest and control variables were then simultaneously submitted to an ordinary least-squares OLS regression procedure within STATA. The results of this analysis are shown in Table 1. Starred values represent significant regression coefficients at the 0.05 level. As can be seen from the results, significant statistical evidence was observed for most relationships. The relationship between Outpost proficiency and average sales price was not significant. Additionally, the relationship between Discourse proficiency and average sales price was significant and negative, which is contrary to our hypothesis. The importance of these results is discussed in the following section.

Variable	OLS Coeff.	Sig. Level
Average Sales Price (natural log)	--	--
<i>Hyper-Differentiation Aspect</i>		
Handmade Products Setting	0.33*	0.08
Made-to-Order Products	0.72*	0.07
<i>Social Media Aspect</i>		
Discourse Proficiency	-0.46*	0.11
Broadcast Proficiency	0.00005*	0.008
Outpost Proficiency	-0.10	0.08
Interaction: Outpost Proficiency x Broadcast Proficiency	0.00006*	0.0002

Table 1. Regression Results

DISCUSSION

The study presents an empirical analysis of the factors associated with micro-manufacturer sales success in the online social commerce platform Etsy. The study was motivated by the rise in popularity of social commerce sites like Etsy, which allow small manufacturers to produce and sell highly customized products to individuals all over the world. Our empirical analysis involved the examination of over 1300 individual Etsy shops and over 400,000 item pages. Results of our empirical analysis show partial support for both of our studies hypotheses. Hypothesis *H1*, which examined the role of social media performance on Etsy sales prices, was partially supported. Specifically, we found that increased proficiency in the area of Broadcast media improved the average sales price of product listings. This finding is consistent with past research that shows that better performance around broadcast media can lead to sales success in electronic environments (Manchanda, Dubé, Goh, & Chintagunta, 2006). Interestingly, our study also showed some support for the role of cross-platform marketing in the form of brand outposts. While the main effect of our outpost variable was not significant, there was statistical support for the interaction between outpost and broadcast media. This finding shows that while the mere presence of a brand outposts did not lead to increased sales prices, shops that engaged in outpost activity realized a net increase in more views. This increase is likely attributable to the outpost activities driving more traffic to Etsy pages, thereby indirectly providing benefits. One potential reason for the lack of statistical support of outpost may be due to the fact that this study only examined the existence of outposts. Brand outpost activities may in fact be more nuanced, requiring careful management and attention.

One surprising finding concerning *H1* involved the negative relationship between the customer discourse aspect and average sale prices. A substantial amount of past work has shown that positive customer discourse is often associated with increased sales prices (Chevalier & Mayzlin, 2006). However, in our study we observe a significant negative relationship. This implies that higher rated micro-manufacturers charged lower prices. Our explanation is that this finding may illuminate the struggle faced by micro-manufacturers around price elasticity. Currently, Etsy shops seem to be places to go for low prices. It may be that Etsy customers tend to be looking for deals or generally low priced items. When their budgets increase, their expectations of service may not be easy for micro-manufacturers to fulfill, given the limited means of many micro-manufacturing organizations and the online format. In this respect, micro-manufacturers may be seen in the same way as other types of bargain generating businesses including antique stores and flea markets, which often struggle to charge higher prices for goods (Sherry, 1990).

When considering hypothesis *H2*, our empirical analysis showed full support for both the relationships between handmade products and made-to-order products. These findings make important contribution to extant research examining the performance of small businesses online. Specifically, the results show that hyper-differentiation is an important part of success for micro manufacturers. Customers value the handmade and personalization options offered by at the shops. The implication of this finding for micro manufacturers is that they should continue to work to improve their ability to offer customized and handmade products. For other manufacturing companies, the finding reveals that the wider community very much values the kind of personalization and hyper differentiation made possible by these types of manufacturers.

FUTURE RESEARCH AND CONCLUSION

Understanding the impact of social media interaction proficiency and hyper-differentiation proficiency on Etsy product sales prices is vitally important. Micro-manufacturers and academia can benefit from examining the intricacies of strategic marketing in global, niche markets. Our study offers two interesting prospects for future research. First, our conceptualization of the brand outpost in this study is somewhat limited. By considering the presence of the outpost alone, and not the activities that companies may engage in within these other social network sites, we are only able to reveal a select portion of the overall outpost process. Statistical results from our analysis show the need for a more in-depth treatment of brand out posting. In a future study, micro-manufacturer performance could be considered together with the activities that they engage in within sites like Pinterest, Facebook etc. This would provide insight into which of these outpost activities are most directly associated with eventual sales success.

Another opportunity for future research concerns the interesting finding of our negative relationship between positive customer discourse and average sales price. More work is needed to determine if at the customers are entering into transactions with micro-manufacturers for certain means and objectives that are different from those held by customers of other retail outlets. A future study could assess the factors determining customers' intentions to buy handmade and made-to-order products in online settings to determine exactly which factors most influence these buying behaviors. This study would provide much for insight into the nature of how reputation impacts sales success for micro manufacturers, as well as shedding light on the micro manufacturing sales process in general.

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