

AN EMPIRICAL INVESTIGATION OF ENTREPRENEURIAL MARKETING DIMENSIONS

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ABSTRACT

Although entrepreneurial marketing (EM) behaviors are widely reported within marketing practice today, there is no common agreement on how many dimensions are underlying EM behaviors. When investigating firms' EM behaviors, researchers use different elements to represent dimensions of EM behaviors. The current study aims to identify dimensions underlying EM behaviors and to examine the existence of these EM dimensions using empirical data. Based on the literature review, we propose six dimensions underlying EM behaviors, namely growth orientation; opportunity orientation; total customer focus; value creation through networks; informal market analysis; and closeness to the market. These EM dimensions are quantitatively confirmed based on survey data and confirmatory factor analysis. Results show that a proposed model fits well with the data and fits better than other feasible alternative models. We believe that the empirically verified dimensions of EM behaviors should provide a foundation upon which researchers can build and test for a broader theory.

Keywords: Entrepreneurial Marketing, Marketing Behavior, Confirmatory Factor Analysis

INTRODUCTION

Marketing as practiced by firms today has significantly evolved during the past four decades. Once thought to be an act of selling and advertising, marketing has been pushed into this new direction by shifts in various elements (Day and Montgomery, 1999). Today, marketing is no longer seen as a function in a firm, but as a broader activity that can be applied not only to products, but also to other offerings, such as services, places, persons, ideas, and causes (Kotler, 2011). The American Marketing Association (AMA) has recently defined marketing as "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large (AMA, 2013)."

This shift to the modern view of marketing has been accompanied by major developments in the academic marketing field, and marketing behaviors found in these developments share same spirit with entrepreneurial behaviors. Firstly, marketing has transformed from a transactional approach to a relational approach (Gronroos, 1990; Webster, 1992). Rather than focusing on marketing activities leading to immediate sale, firms emphasize establishing long-term relationships with customers in order to also bring in repeated purchase (Gummesson, 2002; Ravald & Gronroos, 1996). Secondly, marketers have embraced the co-creation concept and empowered their customers by integrating them into their new product development process (Prahalad & Ramaswamy, 2004). They give customers an opportunity to contribute and select elements of new product offerings, with the belief that doing so can increase the likelihood of their new products' success (Hoyer, Chandy, Dorotic, Krafft, & Singh, 2010). Thirdly, marketers recognize a need to be flexible in the environments where customer preferences and technology are constantly shifting. While cherishing the traditional view that a marketing plan is an important guide to follow, firms also develop an ability to integrate, build, and reconfigure internal and external competencies to address rapidly-changing environments (Teece, Pisano, & Shuen, 1997). Researchers found that marketers had dynamic capabilities at several levels, such as the NPD unit and network level (Eisenhardt & Martin, 2000; Pavlou & El Sawy, 2011; Rothaermel & Hess, 2007). The rise in entrepreneurial behaviors within marketing practice suggests that entrepreneurial behaviors may be the essence of marketing in the modern era. Therefore, it is an objective of this study to empirically examine entrepreneurial behaviors in marketing or entrepreneurial marketing.

Entrepreneurial marketing (EM) has emerged as a marketing practice recommended for firms operating in highly dynamic environments. The focus of an EM perspective is on marketing undertaken using entrepreneurial, innovative, and opportunity-driven approaches (Fiore, Niehm, Hurst, Son, & Sadachar, 2013; Morrish, Miles & Deacon, 2010). Prior research identified several characteristics of EM behaviors, such as calculated risk-taking (Carson & Grant, 1998), decisions based on intuition and experience (Siu & Kirby, 1999), inherent focus on recognition of opportunities (Hills & Singh, 1998), flexible approaches to markets (Sashittal & Jassawalla, 2001; Shaw, 1999), and exploitation of smaller market niches (Stasch, 1999). Evidence of EM practices is documented both in business practice (Buskirk & Lavik, 2004; Magretta, 1998; McKenna, 1991; Rigby, Christensen, & Johnson, 2002), and in academic research (Coviello, Brodie, & Munro, 2000; Eggers, Hansen, & David, 2012; Gilmore & Carson, 1999; Glazer & Weiss, 1993; Jones, Suoranta, & Rowley, 2013a)

Although EM behaviors are widely reported, there is no common agreement on how many dimensions are underlying EM behaviors. When investigating firms' EM behaviors, researchers use different elements to identify dimensions of EM behaviors. The elements used by researchers vary from one study to another, both in content and in number of their dimensions (Gruber, 2004; Jones et al., 2013a; Mort, Weerawardena, & Liesch, 2012; Shaw, 2004). In a prior study that contributed to identifying underlying dimensions of EM behaviors (Morris, Schindehutte, & LaForge, 2002a), the EM concept is examined in detail and seven dimensions of EM are proposed. Those dimensions are proactive orientation, opportunity focus, customer intensity, innovativeness, calculated risk-taking, resource leveraging, and value creation. Although Morris et al. delineated those EM dimensions, the researchers did not test or confirm their EM dimensions empirically.

In recent years, there has been an increasing number of studies empirically investigating EM dimensions and the literature can be categorized into two research streams. Studies in the first stream of research have focused on confirming the seven dimensions of EM proposed by Morris et al. (2002a) (Fiore et al., 2013; Kocak, 2004; Schmid, 2012). To date, however, no study has confirmed a construct that fully corresponds with Morris et al.'s framework. The EM dimensions confirmed by the researchers varied across studies. While Kocak (2004) confirmed five dimensions of EM in a study of small firms in Turkey, Schmid (2012) confirmed four dimensions in a study of SMEs in Austria, and Fiore et al. (2013) confirmed four dimensions in a study of the US firms, respectively.

Studies in the second stream of research have developed new EM frameworks by analyzing data from various contexts such as born global firms (Mort et al., 2012), and SMEs (Jones & Rowley, 2009). The EM dimensions identified in this research stream also differ in terms of number and content. Jones and Rowley (2009) developed a framework called "EMICO", which comprises fifteen EM dimensions based on firms' levels of entrepreneurial orientation (EO), innovation orientation (IO), market orientation (MO), and customer orientation (CO). Mort et al. (2012), on the other hand, identified four dimensions of EM in Australian firms that are not categorized by such orientations.

With an increasing acceptance of the EM concept in marketing and entrepreneurship academic fields, and with more than six hundred researchers researching EM globally (Sethna, Jones, & Harrigan, 2013), there is a need for research scholars to move toward a more unifying concept regarding the EM construct in order to advance the field and make more progress.

The objective of this study is twofold. First, we contribute to the research regarding the EM construct by identifying dimensions underlying EM behaviors. This is based on an extensive review of literature in marketing and entrepreneurship journals, and on the characteristics of EM behaviors suggested by Hills and Hultman (2006). Although prior research used to treat EO as a dimension of EM, in this study, we treat EM as a separate construct from EO. With an increasing number of studies suggesting that a firm's level of entrepreneurship can affect firms' marketing activities (Covin, 1991; Eggers et al., 2012; Fiore et al. 2013; Hills & Hultman, 2006; Qureshi & Kratzer, 2011), we believe that EO should be not be treated as an EM dimension. Rather, it should be treated as an antecedent of EM behaviors. That is, firms with a higher level of EO should exhibit higher levels of EM behaviors. As a result, we do not include EO in our EM dimensions and plan to investigate the relationship between the two constructs in the near future.

Secondly, we examine the existence of these EM dimensions using empirical data. We believe that empirically verified dimensions of EM behaviors in this study should provide a foundation upon which researchers can build and test for a broader theory. Since this study is an attempt to empirically confirm dimensions of EM behaviors from a large data set, the results should complement findings from prior research.

This study proceeds as follows. In the next section, we summarize literature regarding the EM concept. We define EM and then introduce six dimensions of EM behaviors. In the methodology section, we provide a description of our data set and data analysis. Results of our confirmatory factor analysis are reported in the section that follows and we conclude by discussing implications.

LITERATURE REVIEW

Entrepreneurial Marketing: Marketing at the Interface

Entrepreneurial marketing is an interface between marketing and entrepreneurship and it integrates marketing and entrepreneurship through the concepts shared by the two fields (Morris et al., 2002a). Both fields are reported to be innovative in their approach to management (Collinson & Shaw 2001), have customers as their focal point (Hisrich, 1992), and require the assumption of risk and uncertainty (Hills & LaForge, 1992). Due to these similarities, researchers suggest that EM can help entrepreneurs cope with change, identify viable opportunities, and develop their innovative skills (Collinson, 2002).

The EM concept has evolved significantly over the past three decades. In the early days, EM primarily focused on marketing practice in small firms, young firms, and entrepreneur-operated firms. As a result, researchers usually focused on investigating theories and practices that apply to those contexts (For example, Carson & McCartan-Quinn, 1995; Stasch, 1999; Teach, Schwartz, & Tarpley, 1990). Later on, the EM concept was expanded to cover several types of marketing activities, such as marketing that deviates from mainstream marketing (Morris et al. 2002a), marketing activities in firms aiming toward growth (Bjerke & Hultman, 2002), marketing activities in highly successful firms (Buskirk & Lavik, 2004), and entrepreneurial marketing activities in larger firms (Miles & Darroh, 2006).

With these developments, Hills and Hultman (2006) proposed that EM should be viewed as an umbrella strategy which acknowledges three broad areas of research including marketing in new ventures or SMEs, entrepreneurship activities within larger organizations, and innovative and cost-effective marketing strategies that provoke market change. More recently, evidence of differences in EM practice between firms in different countries are reported (Jones et al., 2013a), and researchers suggested that research scholars should also incorporate the impact of ethnicity and culture into their contexts when investigating EM (Sethna, 2013).

Entrepreneurial Marketing Behaviors and their Dimensions

This study identifies underlying dimensions of EM behaviors based on a review of empirical studies published in marketing and entrepreneurship journals, and on the characteristics of EM behaviors suggested by Hills and Hultman (2006). We found that EM behaviors can be categorized into six categories, including growth orientation, opportunity orientation, total customer focus, value creation through networks, informal market analysis, and closeness to the market. All dimensions are closely related and they encompass all important elements that were suggested in prior research as essential elements of EM behaviors. As a result, we propose that there are six dimensions of EM behaviors. We now elaborate on each EM dimension.

Growth Orientation

Entrepreneurial marketing is often related to growth. Marketers usually have long-term goals in their marketing activities, and aim to create growth of sales through long-term relationships. In the literature, an intention to grow often distinguishes entrepreneurs from non-entrepreneurs (Carland, Hoy, Boulton, & Carland, 1984; Stewart & Roth, 2001). While small firms generally start small and stay small, entrepreneurial firms often grow and strive to

grow even further. Therefore, it is acknowledged that EM is the marketing of small firms growing through entrepreneurship (Bjerke & Hultman, 2002).

Entrepreneurs' ambitions to grow their firms are usually captured by the firm's business model. According to Morris, Schindehutte, and Allen (2005), entrepreneurs who aim to grow will choose to make "a significant initial investment and also a substantial reinvestment in an attempt to grow the value of the firms to the level that generates a major capital gain for investors". In addition, firms can adopt several means to expand their business. They can use word-of-mouth, increase repeat business, and/or create communities of customers who are dedicated and loyal to the products (Hill & Rifkin, 2000). Firms that actually grow are those that can translate the characteristics needed for growth into the capability to grow (Chaston & Mangles, 1997). Researchers suggest the characteristics that seem to encourage growth to be a carefully and fully defined target market, a niche market of limited size, and a balanced product-market orientation (Hills & Hultman, 1999).

It is important to note that firms' marketing strategies are influenced by individuals who manage the firms, and the strategies pursued by these individuals affect firm growth (Feesser & Willard, 1990). Firms that are operated by individuals who have a low level of entrepreneurial orientation may just work toward positive cash flow in order to remain in business rather than working to maximize their financial performance (Runyan, Droge, & Swinney, 2008).

Opportunity Orientation

Entrepreneurial marketing places an emphasis on pursuing opportunities. Entrepreneurial marketers are not limited by the available resources, but pursue opportunities in the belief they can obtain the needed resources (Morris, Schindehutte, & LaForge, 2002b). They respond to emerging opportunities by continually improvising and redeploying their available resources (Sashittal & Jassawalla, 2001), and reformulating the concept of the market and creating different market definitions (Read, Dew, Sarasvathy, Song, & Wiltbank, 2009).

Although opportunities can arise randomly, entrepreneurial marketers are known for proactively searching for new opportunities and reshaping their environment (Santos & Eisenhardt, 2009; Zeithaml & Zeithaml, 1984). Successful marketers are opportunistic, enjoy thinking about new opportunities, and have a long-term orientation toward opportunity creation and exploitation (Hills, Hultman, & Miles, 2008). Constantly searching for opportunities that are ignored by other firms makes entrepreneurial marketers able to serve unsatisfied needs before their competitors.

In addition, Morris, Schindehutte, and LaForge (2002a) acknowledge that firms that practice EM take an innovative and creative approach to marketing. They focus on creating a new category of products and seek to lead their customers through discontinuous innovation. Instead of being driven by the market, entrepreneurial marketers are market drivers who constantly lead the market with innovation and explore new markets with new products (Schindehutte, Morris & Kocak, 2008). Marketers' innovative ideas can be about their products and their marketing strategy. While McGowan and Rocks (1995) reported innovative ideas in promotional media, Stasch (1998) found several innovative ideas in marketing strategies, such as logistics, distribution, and customer service.

Total Customer Focus

Marketers have come afar, when customers were only treated as an external source of intelligence and feedback. Marketers now integrate their customers into their operations and receive recommendations from the customers on regular basis (Bharadwaj, Nevin, & Wallman, 2012; Griffin & Hauser, 1993). They treat customers as active participants in their firms' marketing decision processes, and their innovations are considered customer-centric. To gain a deep understanding of customers' needs, marketers go beyond traditional market research methods, such as surveys and focus groups, to use more advanced research methods, such as ethnographic market research (Goffin, Vanes, Hoven, & Koners, 2012).

To entrepreneurial marketers, customers are their top priority and marketers are known to be flexible, adaptive, and able to improvise in order to keep up with changes in customers' preferences. Flexibility helps them to provide a timely reaction to changes in customer preferences and enables them to deliver superior quality products to customers. Previous studies report evidence of entrepreneurial marketers adapting or adjusting their products and strategies to suit their customers' preferences (Hultman & Shaw, 2003; Jones, Suoranta, & Rowley, 2013b; Shaw, 1999).

According to Schindehutte, Morris, and Pitt (2008), entrepreneurial marketers establish dyadic relationships with their customers. These relationships benefit both customers and firms in several ways. Firstly, the relationships help customers to receive a product that satisfies their most current needs (Geursen & Conduit, 2001), and to provide firms with specific information about their environments. Secondly, the relationships help firms to prepare for unmet needs that may arise in the future (Magretta, 1998), and to obtain first-hand information about desirable products (Athaide, Stump, & Joshi, 2003). The importance of direct customer contacts cannot be emphasized more than in a study by Deshpande, Farley, and Webster (1993), which found that there is a positive correlation between customer assessment and firm performance.

Value Creation through Networks

Marketing through networks is an important concept in entrepreneurial marketing. Marketers rely on networks to obtain information that can be used to identify untapped sources of customer value. They can create new value by using existing technology to serve customers in an unconventional manner (Kumar, Scheer, & Kotler, 2000) or using emerging technology to better satisfy customers' current needs (Hamel & Prahalad, 1991).

Entrepreneurial marketers gather market information and gain access to potential customers through their networks (McGowan & Rocks, 1995; Tolstoy, 2009). Networks can help firms to deliver superior quality products to their customers and create entrepreneurial capital and a competitive advantage over their competitors (Erikson, 2002; Webster, 1992). Researchers reported that marketers focused on forming networks with several parties involved, such as customers, suppliers, and the public, in order to stay connected with the customers (Achrol & Kotler, 2012; Rindfleisch & Moorman, 2001). Under the effectuation logic proposed by Sarasvathy (2001), firms are encouraged to use strategic alliances as a way to eliminate uncertainty and build barriers to entry.

Resources from networks can help entrepreneurial marketers overcome their resource constraints (Miles, Preece, & Baetz, 1999; Reijnders & Verhallen, 1996). This is especially true for small firms and new firms whose marketing activities are constrained by their lack of resources. Resources from a firm's network can help manage risks and allocate resources more efficiently (Street & Cameron, 2007). The networks are not limited to suppliers and customers, but also include competitors (Gilmore, Carson, & Grant, 2001). Working with competitors benefits firms because competitors can provide skills and resources that the firms do not have (Brown & Butler, 1995). A study by Rao, Chandy, and Prabhu (2008) also finds that new firms can obtain legitimacy by forming alliances with established players in the market.

Informal Market Analysis

Marketing decisions often rely on a formal plan which specifies goals and decision rules. Marketing decisions under EM, on the other hand, often do not rely on a formal planning process. According to Sashittal and Jassawalla (2001), firms' marketing strategies can be emergent and are adjusted at the time of implementation (p.53). The use of informal marketing planning is encouraged by the fact that many entrepreneurial firms operate in turbulent environments (Matthews & Scott, 1995).

Prior research shows that marketers often follow their instincts in making marketing decisions and consider intuitive judgment to be an extremely important part of judging market potential (Hills & Singh, 1998). A study by Hills and Hultman (1999) showed that only a small number of business owners carried out formal market research. Although they indicated that market research is of value, most of those business owners did not think that market research is worth its cost (Spitzer, Hills, & Alpar, 1989). Hills and Hultman (1999) suggest that the tendency to not conduct formal market research may come from the fact that marketers gain intuitive and rich

understanding of their markets through constant direct contact with customers. Prior studies provide evidence of entrepreneurial firms acquiring valuable market information through information sharing and informal discussions with their customers (Lindh, 2005). By paying close attention to customers' perceptions during the interactions, marketers are able to identify viable market opportunities.

Closeness to the Market

Since finding the best way to deliver their products to customers is vital to firms' success (Pine & Gilmore, 1998), entrepreneurial marketers have to thoroughly understand the problems their customers are facing and to identify solutions that the customers seek. As a result, they are immersed in the market and behave as if they live in the customer's world. Marketers usually have a vision regarding customer preferences in their minds, and constantly think of how to improve customer value (Atuahene-Gima & Ko, 2001; Hills et al., 2008). Information regarding customers' latent needs obtained through constant contact with the market can be very helpful.

Entrepreneurial marketers do not always behave in a rational and sequential manner, but instead have an informal decision making process that is closely linked to customers and markets. Marketers make decisions regarding new products or services based on customer feedback or information received during direct interactions, or face-to-face conversations with their alliances. Through connections with their alliances, such as those with suppliers and trade partners, marketers can gather information regarding the market and changes in customer preferences (Stokes, 2000). The information also helps them to better understand the norms and values of the target market and enables them to implement their marketing and communication strategies more effectively. Yet, some entrepreneurial marketers rely on their experience when making decisions regarding new products and services because they believe that their experience with the customers can help them project what solutions for the customers could be. According to Carson and Grant (1998), entrepreneurs acquire experience regarding marketing mix elements over time and believe that their experience helps them to make effective and competent marketing decisions.

METHODOLOGY

Data Source

This study uses a sample developed under the direction of the authors. The dataset was collected for the National Federation of Independent Business (NFIB) Research Foundation by the executive interviewing group of The Gallup Organization. Individual interviews were conducted using a national sample of 752 business owners. Business owners were defined as the owner of a business that employs at least one individual in addition to the owner(s) and no more than 249. The Research Foundation drew a sampling frame for the survey from the files of the Dun and Bradstreet Corporation. A random stratified sample was used to compensate for the highly skewed distribution of business owners by employee size of firm. Using a list-wise (casewise) missing data deletion, 673 observations remained for our analysis. Key characteristics of the sample are shown in Table 1.

Item	Category	Percentage
a. Size	1 - 9 employees	45.6
	10 - 250 employees	54.4
b. Age	< 1 year old	1.5
	1- 6 years old	23.0
	> 6 years old	75.1
c. Growth Rate (change in sales over 3 years)	Decreased	11.9
	1- 10 percent growth	63.7
	> 10 percent growth	18.9
d. Sector	Commodity/Construction/ Transportation	17.1
	Manufacturing	9.4
	Wholesale/ Retail	17.8

Financial Services	8.5
Professional Services	20.7
Other Services	26.3

Note: The percentage is based on the sample of 673 observations and may not sum up to 100 due to missing values.

Table 1. Key Characteristics of the Sample.

Measures

This study builds on a major qualitative study with 59 tape recorded and analyzed interviews in the US and Sweden. In this quantitative study, firms' EM behaviors are measured using twenty variables. Five-point Likert scales anchored by "Strongly disagree" (1) and "Strongly agree" (5) were developed for these variables. Each question was broadly framed as follows: "Please tell me if you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statements about marketing as it is done in your business." The variables are categorized according to the EM behaviors that they measure. Growth orientation, value creation through networks, informal market analysis, and closeness to the market are each measured by 3 variables, while opportunity orientation and total customer focus are each measured by 4 variables. A complete list of all variables is shown in Table 2.

Entrepreneurial Marketing Measures Dimensions	
Growth Orientation ($\alpha=0.49$)	(G1) Long-term growth is more important than immediate profit. (G2) Our primary objective is to grow the business. (G3) We try to expand our present customer base aggressively.
Opportunity Orientation ($\alpha=0.51$)	(O1) We constantly look for new business opportunities. (O2) Our marketing efforts lead customers, rather than respond to them. (O3) Adding innovative products or services is important to our success. (O4) Creativity stimulates good marketing decisions.
Total Customer Focus ($\alpha=0.45$)	(T1) Most of our marketing decisions are based on what we learn from day-to-day customer contact. (T2) Our customers require us to be very flexible and adapt to their special requirements. (T3) Everyone in this firm makes customers a top priority. (T4) We adjust quickly to meet changing customer expectations.
Value Creation through Networks ($\alpha=0.50$)	(V1) We learn from our competitors. (V2) We use our key industry friends and partners extensively to help us develop and market our products and services. (V3) Most of our marketing decisions are based on exchanging information with those in our personal and professional networks.
Informal Market Analysis ($\alpha=0.45$)	(I1) Introducing new products or services usually involves little formal market research and analysis. (I2) Our marketing decisions are based more on informal customer feedback than on formal market research. (I3) It is important to rely on gut feeling when making marketing decisions.
Closeness to the Market ($\alpha=0.32$)	(C1) Customer demand is usually the reason we introduce a new product and/or service. (C2) We usually introduce new products and services based on the recommendations of our suppliers. (C3) We rely heavily on experience when making marketing decisions.

Table 2. Measures for Entrepreneurial Marketing Dimensions.

Data Analysis

Our data analysis contains two steps. In the first step, we perform a confirmatory factor analysis (CFA) to determine the fit between a hypothesized model and the sample data. In the second step, we compare the six-factor model with theoretically-feasible five-factor and seven-factor models. Confirmatory factor analysis has an advantage over other analytic techniques, such as regression analysis, in that it allows the researcher to specify causal relationships between observed variables and latent factors taking into account measurement error.

The CFA model for EM behaviors hypothesizes a priori that (a) EM can be explained by six factors, including growth orientation, opportunity orientation, customer intensity, value creation through relationships and alliance, informal marketing research, and market immersion, (b) each item-pair measure has a non-zero loading on the entrepreneurial factor that it was designed to measure (target loading), and a zero loading on all other factors (non-target loadings), (c) the six EM factors are correlated, and (d) the error/uniquenesses associated with each measure are uncorrelated. A schematic representation of this model is shown in Figure 1.

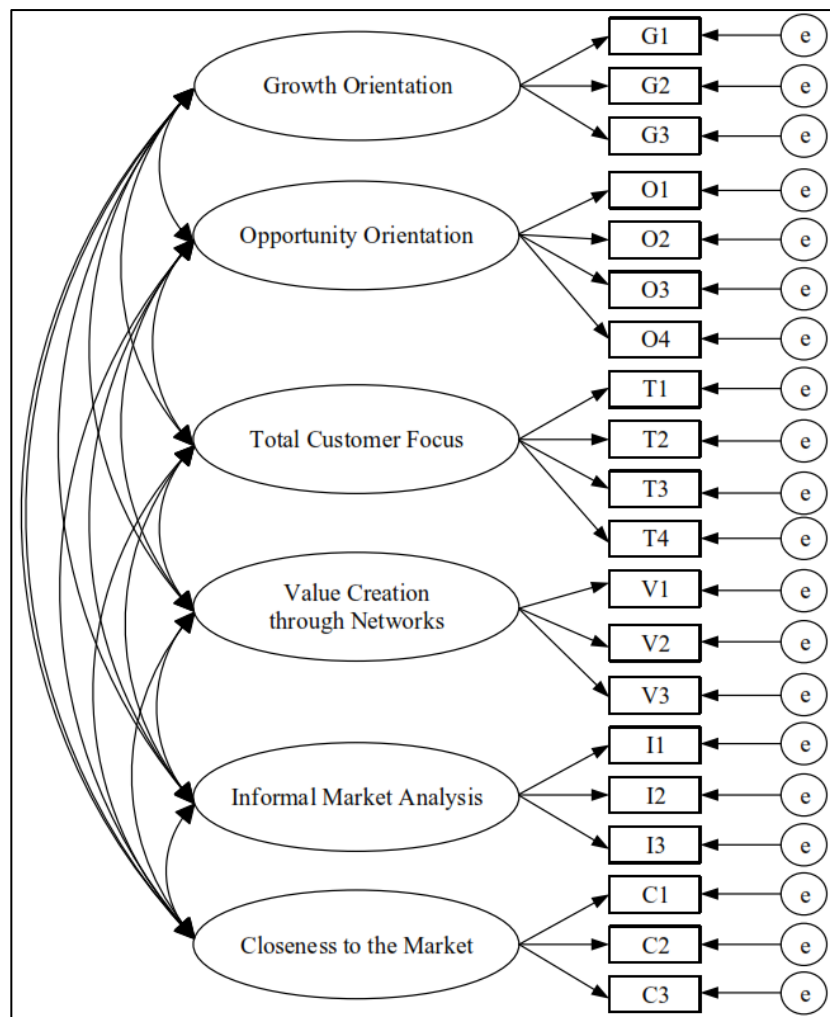


Figure 1: The Proposed Six – Factor Model of Entrepreneurial Marketing

In order to determine whether the proposed model fits well with the data and whether it fits better with the data than other models, we need criteria to evaluate the models. There are several goodness-of-fit indices that researchers use to evaluate the model fit. This study utilizes the widely used goodness-of-fit indices including BIC, RMR, CFI, NNFI, RMSEA, and Chi-square statistics. Below is our brief introduction of these indices as elaborated in Byrne (2010).

The root mean square residual (RMR) represents the average residual value derived from the fitting of the variance-covariance matrix for the hypothesized model to the variance-covariance matrix of the sample data. Since these residuals are relative to the sizes of the observed variance and covariances, the standardized RMR is used. The standardized RMR represents the average value across all standardized residuals, and ranges from zero to 1.00. In a well-fitting model, the value will be 0.05 or less. The Normed Fit Index (NFI) is an incremental index that researchers usually use, but it underestimates fit in small samples. Therefore, it is suggested that researchers should use the Nonnormed Fit Index (NNFI) or Comparative Fit Index (CFI) which takes sample size into account. Values for NFI, NNFI and CFI range from zero to one and are derived from the comparison of a hypothesized model with the independence model. A value close to 0.95 is considered representative of a well-fitting model. The root mean square of approximation (RMSEA) takes into account the error of approximation in the population and identifies how well the model would fit the population covariance matrix if it were available. An RMSEA value of less than 0.05 indicates a good fit. The Chi-square statistic represents the discrepancy between the unrestricted sample covariance matrix and the restricted covariance matrix. The higher the probability associated with the Chi-square, the closer the fit between the hypothesized model and the perfect fit. Although it is one of the most widely used index, the Chi-square statistic is known to be statistically significant even when the model fits well with the data. As a result, researchers typically use other alternative goodness-of-fit indices as adjuncts to the Chi-square statistics.

RESULTS

The Six-factor Solution

We analyze the variance-covariance matrix of the sample data using a maximum likelihood estimation function. Twenty items measuring EM behaviors are categorized into six EM dimensions based on the hypothesized model. The latent factors of EM were allowed to be correlated, based on a previous study which suggested that the components of EM are not independent (Morris et al. 2002a). As for the first step of our analysis, we examine the fit of the hypothesized model with the sample data. Results are shown in Table 3.

Model	$\chi^2(\text{df})$	$\Delta\chi^2(\text{df})$	CFI	NFI	NNFI	RMSEA	RMR	BIC
Hypothesized (Six-factor)	227.18(155)	-	0.94	0.84	0.93	0.026	0.048	585.33
Five-factor	282.70(160)	45.52(6)	0.90	0.80	0.88	0.034	0.059	608.29
Seven-factor	303.73(151)	76.19(4)	0.87	0.78	0.84	0.039	0.065	687.93

Table 3. Goodness of Fit Indexes Confirmatory Factor Analysis.

The goodness-of-fit indices of the six-factor model are shown in the first row of Table 3. These goodness-of-fit indices suggest that the six-factor solution has a good fit with the data with CFI = 0.94, NNFI = 0.93, RMSEA = 0.026, and RMR = 0.048. All of the factor loading estimates are statistically significant ($p < 0.001$) as shown in the Appendix. As a result, we conclude that the hypothesized model of six-factor solution fits well with the data.

Model Comparison

As for the second step of our analysis, we compare the hypothesized model with other alternative models. To confirm a hypothesis stating that EM is a six-factor construct, this study has to show also that the model with six factors of EM behaviors fits the sample data better than other alternative models. In this section, we compare the proposed six-factor model with two alternative models, a five-factor model and a seven-factor model. In particular, we test the hypothesis that EM is a six-factor construct comprised of six dimensions, against alternative hypotheses that a) EM is a five-factor construct comprised of five dimensions and b) EM is a seven-factor construct comprised of seven dimensions.

Figure 2 shows the schematic representations of the five- and seven-factor models. Note that these two alternative models are constructed based on major characteristics of EM behaviors frequently reported in prior literature (Morris et al. 2002; Hills and Hultman, 2006). In the five-factor model, the twenty items measuring EM behaviors are categorized into five factors, namely growth orientation, opportunity orientation, value creation through networks, total customer focus, and informal market analysis. In this model, three items measuring closeness to the market dimension (C1, C2, and C3) are categorized under three dimensions including total customer focus, value creation through networks, and informal market analysis. (See the left panel of Figure 2 for an illustration of the model.)

In the seven-factor model, the twenty items are categorized into seven factors, namely growth orientation, opportunity orientation, value creation through networks, total customer focus, closeness to the market, informal market analysis, and informal decision-making. In this model, items C3: “We rely heavily on experience when making marketing decisions” and I3: “It is important to rely on gut feeling when making marketing decisions” are measuring a new dimension called informal decision making. (See the right panel of Figure 2 for an illustration of the model.)

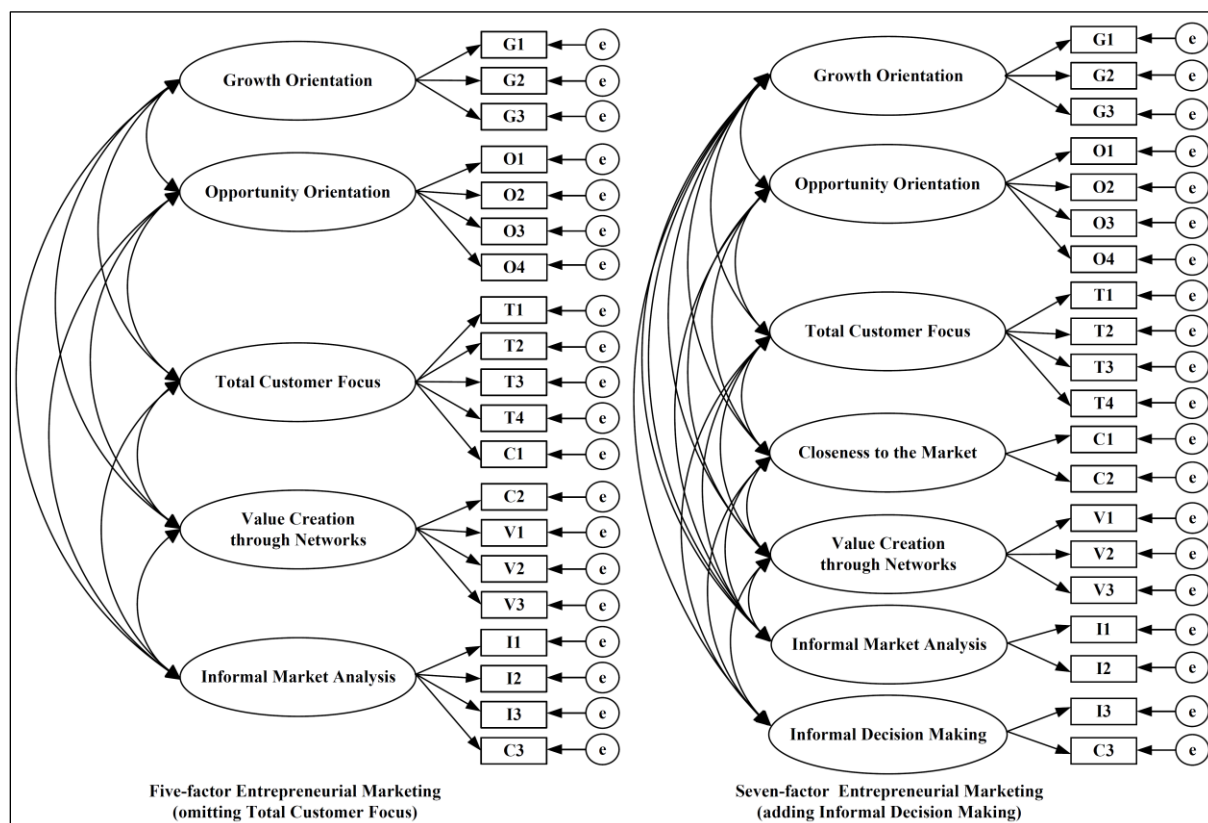


Figure 2: The Alternative Five - and Seven - Factor Model

(The covariances between Informal Decision Making and Opportunity Orientation and between Informal Decision Making and Informal Market Analysis are dropped from the seven-factor model for the covariance matrix to be positive definite.)

Table 3 shows the fit indices of the five- and seven-factor models along with those from the proposed six-factor model. Compared to the five-factor and the seven-factor models, all of the fit indices suggest that the six-factor model has a better fit, with the highest CFI, NNFI, and the lowest RMSEA and BIC. The CFI is 0.90 when the EM is modeled with five factors, 0.94 when modeled with six factors, and 0.87 when modeled with seven factors. The NNFI is 0.88 with five factors, 0.93 with six factors, and 0.84 with seven factors. The RMSEA is 0.033 with five factors, 0.026 with six factors, and 0.039 with seven factors.

The Chi-square, and the BIC also decrease substantially when the EM behaviors are modeled with six factors rather than five or seven factors. According to the Chi-square difference tests shown in Table 3, each of the alternative models is a worse fit ($p < 0.001$). (It is worth noting that the Chi Square comparisons in this study are not the traditional nested Chi Square and therefore do not directly test for significance of specific parameters.) When comparing the BIC values for two competing models, the model with the lowest BIC value reflects the best-fitting model. In line with the Chi-square difference test, the BIC value for the six-factor model is lowest at 585.33, thereby suggesting a better fit with the sampled data.

Based on results from both steps of our analysis, our model is supported by the data. As a result, we conclude that EM behaviors have six underlying factors, namely growth orientation, opportunity orientation, total customer focus, value creation through networks, informal market analysis, and closeness to the market. In other words, EM behaviors are identified by six underlying dimensions.

DISCUSSION AND IMPLICATIONS

Once thought to be of importance in different contexts, entrepreneurial marketing (EM) and mainstream marketing seem to converge. Several recent developments in marketing share the same spirit with EM behaviors. Although the EM concept is widely researched and progress has been made, researchers do not yet have a consensus on how many dimensions are underlying the EM construct. This study contributes to knowledge in the fields of entrepreneurship and marketing in that it identifies factors underlying the EM construct, based on an extensive review of marketing and entrepreneurship literature, and empirically confirms these dimensions.

We believe that the empirically verified dimensions of EM behaviors should provide a foundation upon which other researchers can build and test for a broader theory. Future study may use the EM dimensions confirmed in this study to examine a relationship that has not been fully established in the EM literature: For example, the relationship between EM practice and firm performance. Although researchers often report EM behaviors in high-growth firms, they have not established a causal relationship to show that EM practice has a statistically significant positive impact on firm growth. The confirmation of EM dimensions in this study, therefore, should provide a basis for researchers to investigate the relationship in the future.

The confirmation of six dimensions of EM behaviors in this study also has implications for practitioners. Since these EM behaviors are reported to be found in entrepreneurial firms, EM dimensions identified in this study can be a guideline to firms of how to be more entrepreneurial in their marketing. Firms can adjust the way they practice their marketing in six different ways according to the six EM dimensions identified in this study. That is, they should have a long-term perspective on their marketing, constantly seek new opportunities, embrace changes and flexibility when dealing with their customers, engage their networks in their marketing decisions, collect market information using informal research methods, and stay close to the markets.

This study is not without limitations. Firstly, the confirmation of the six EM dimensions in this study is based on a sample of business owners in only one country. Findings from prior research (Jones et al., 2013a; Mort et al., 2012) imply that firms that operate in different cultures, or different contexts, may emphasize different EM strategies. As a result, our findings need to be replicated in order to test for an equivalency of the factor structure of EM behaviors across different samples. Secondly, the measurements used to identify EM behaviors in this study,

although they are currently best available, help us to systematically link common characteristics reported by prior studies, they possess rather low reliability coefficients. Future refinement and test of the measurements would be beneficial to the field of entrepreneurial marketing. Future research should also investigate further whether there are any other dimensions of EM that should be added into the proposed six dimensions, in order for the model to be more generalizable across various contexts.

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APPENDIX

Standardized coefficients under the six-factor model.

EM Dimensions	Growth Orientation	Opportunity Orientation	Total Customer Focus	Value Creation through Networks	Informal Market Analysis	Closeness to the Market
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G1	0.28			
G2	0.54			
G3	0.70			
O1		0.65		
O2		0.28		
O3		0.54		
O4		0.41		
T1			0.46	
T2			0.33	
T3			0.35	
T4			0.55	
V1				0.40
V2				0.62
V3				0.47
I1				0.40
I2				0.48
I3				0.52
C1				0.44
C2				0.36
C3				0.34

Authors Biographies

Gerald E. Hills held endowed Chairs in Entrepreneurship at the University of Illinois at Chicago and at Bradley University over a span of more than 30 years. He is a pioneer in the development of the entrepreneurship discipline, having hosted a Research Symposium on marketing and entrepreneurship annually since 1987. He also carried out some of the earliest research regarding opportunity recognition and published more than 100 refereed articles. He also served as cofounder and first President of USASBE, and President of the International Council for Small Business. He developed highly ranked entrepreneurship programs at UIC and Bradley University.

Claes M. Hultman is Senior Professor of Marketing at Orebro University School of Business in Sweden. He holds a Ph.D in Business Administration. He is the author of many books and articles in marketing, entrepreneurship as well as well as distribution and is currently on the editorial board of several scholarly US – UK journals. Claes Hultman also serves on the Board of Directors for several companies. His special interest is commercial processes in early business stages. Most of his research today is in the interface of marketing entrepreneurship and innovation with a special focus on theory development within Entrepreneurial Marketing.

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