

Organizational processes for B2B services IMC data quality

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Abstract

Purpose – The objective of this paper is to investigate IMC metrics in the lens of an institution-wide change management process, and to do so, the authors develop and test an organizational data quality enhancement model.

Design/methodology/approach – Qualitative research was conducted, with a follow-on quantitative pre-test. A subsequent, larger-scale quantitative survey resulted in a total of 128 responses, 124 useable. A regression analysis was conducted using the factor scores of the six organizational dimensions as independent variables and overall data quality as the dependent variable.

Findings – The findings show that overcoming poor IMC data quality requires a corporate culture that reduces cross-functional and departmental divides. The authors also support the idea that horizontally organized learning organizations not only have superior IMC data, but they also achieve higher rates of return on their cross-platform IMC efforts.

Research limitations/implications – The research has limitations in terms of substantive generalizability, since it focuses on one industry within the USA. Future research can expand to other industries and expand to a global setting in order to replicate these findings.

Practical implications – Most improvement seems to be needed in the area of sharing customer data. The findings provide a signal to marketing organizations that want to connect with their customers that data quality must be a strategic priority, with appropriate processes in place to manage data at every touch point.

Originality/value – Research is needed that establishes effective methods for measuring the success of data-driven communication efforts to support management.

Keywords Organizational culture, Relationship marketing, Business-to-business marketing, Organizational performance, organizational learning, Data quality

Paper type Research paper

An executive summary for managers and executive readers can be found at the end of this article.

Introduction

There is a growing consensus on a global scale that by developing theory and best practice strategies in the domains of integrated marketing communications (IMC) and relationship marketing (Gronroos, 2004), researchers can bring considerable value to both marketers and customers (Chien *et al.*, 2007). The myriad of communication opportunities that advancing media technologies offer and their capabilities for developing unified messaging and

tailored contact strategies have placed greater emphasis on bringing together customer information from multiple data touchpoints (Ballantyne and Aitken, 2007; Payne and Frow, 2004; Peltier *et al.*, 2003). Recently, the rise of customer relationship management (CRM) systems combined with the merging of new media and traditional communication channels has dramatically altered the landscape of integrated marketing communications (Hunt *et al.*, 2006; Sharma, 2006; Gronroos, 2004). These changes make IMC a more critical strategic and tactical tool, increasing the need for organizations to better understand how and in what forms IMC should be developed and deployed (Zahay *et al.*, 2012).

The current issue and full text archive of this journal is available at www.emeraldinsight.com/0885-8624.htm



Journal of Business & Industrial Marketing
29/1 (2014) 63–74
© Emerald Group Publishing Limited [ISSN 0885-8624]
[DOI 10.1108/JBIM-09-2011-0132]

The authors are grateful to the Marketing Science Institute, the Direct Marketing Policy Center at the University of Cincinnati, and the University of Wisconsin, Whitewater, for their financial support of the data collection phase of this research.

Received 23 September 2011

Revised 5 October 2012

Accepted 11 October 2012

In response to a growing need for IMC, marketers are trying to break down their existing internal “communication silos” to include cross-organizational processes (Keramati *et al.*, 2010; Peltier *et al.*, 2013). They are beginning to use cross-platform campaigns, such as mixing traditional media with interactive and social media, public relations, sponsorships, events, product placements, and other forms of customer-focused IMC promotions designed to interact with customers at the time and place of their choice (McDonald, 2008).

Despite the development of these wide-ranging innovations in media planning and CRM platforms that enable data-driven messaging and contact strategies, there is an increasing concern that these technological advances have outpaced our ability to measure the effectiveness of IMC efforts in today’s multi-channel, multi-touchpoint communication environment (Lages *et al.*, 2008; Wind and Sharp, 2009). Much of this difficulty is due to the fact that relatively few organizations have evaluative mechanisms and metrics in place for managing, controlling, and assessing the effectiveness of CRM-based IMC efforts (Payne and Frow, 2004; Kim and Kim, 2009). As a consequence, research shows that many cross-platform IMC initiatives have not lived up to their potential (Kitchen *et al.*, 2008).

Extant literature provides reasons for the difficulty of cross-channel measurement in the new media age with existing tools and approaches in organizations (Suher and Sorensen, 2010; Rappaport, 2010; Rubinson, 2009). Most conceptual and empirical work in this area focuses on the types of data to be collected, the process for collecting these data, and the means by which these data are analyzed (Zahay, 2008). Although this stream of research has advanced the study of IMC metrics (Lautman and Pauwels, 2009), it has not solved the inherent measurement problems for organizations trying to increase engagement at various customer touchpoints (Lages *et al.*, 2008; Zahay *et al.*, 2012).

In this paper, we offer a different approach to IMC measurement, that of the impact and effect of an IMC program. We contend that measurement problems are not just about technology or even methodology. Most measurement problems start at the beginning of the marketing process with underlying data quality issues (Peltier *et al.*, 2013). If IMC planners do not have good quality data, they cannot personalize cross-platform IMC campaigns nor can they develop effective measures of returns (Pettit, 2010). Further, if organizations cannot effectively measure relationships and relational metrics, meaningful solutions can neither be proposed nor ultimately applied (Salojärvi *et al.*, 2010). Without sound customer data, the resulting strategy is essentially a guessing game. Thus, research is needed to establish effective methods for measuring the success of data-driven communication efforts that support management decision making (Richards and Jones, 2008).

Recognizing the inadequate state of IMC metrics and data quality concerns, research that develops mechanisms for promoting better organizational methodologies that enhance the quality and accuracy of data for designing effective cross-channel IMC campaigns has been advocated by scholars and PR practitioners alike (Keramati *et al.*, 2010; Richards and Jones, 2008; Wurtzel, 2009; Zahay *et al.*, 2012). To this end, and heeding calls to investigate IMC metrics in the lens of an institution-wide change management process (Stein and Smith, 2009; Rubinson, 2009; Wind and Sharp, 2009), we

develop and test an exploratory model to investigate whether a horizontally organized learning organization has better IMC data, and whether such data leads to superior customer-driven metrics. Specifically, we examine how various horizontal learning and communication structures impact the accuracy, consistency and overall quality of IMC data collected by an organization. We then assess the extent to which IMC data quality relates to four customer metrics – satisfaction, retention, cross-selling, and customer ROI.

IMC and data quality

Importance of data quality in IMC assessment

The need for improving cross-platform metrics through enhanced data quality initiatives has been echoed with regard to an array of traditional and new IMC channels (Payne and Frow, 2004), including television (Zigmond *et al.*, 2009), print (Collins *et al.*, 2010), in-store (Suher and Sorensen, 2010), and interactive media (Rappaport, 2010; Rubinson, 2009). Zahay *et al.* (2004) outlined various cross-platform IMC dimensions, including the quality of data collected from multiple communication touchpoints (i.e. internet contacts, e-mail, telephone), financial/contact management data (i.e. purchase history, credit history, payment history), loyalty/satisfaction data (i.e. loyalty programs, satisfaction surveys) and externally available data (i.e. commercial databases, magazine subscriptions, association data). Existing IMC literature combined with information systems research identifies a variety of data quality concerns including data accuracy, consistency, timeliness, and completeness, among others (Peltier *et al.*, 2013).

Organizational learning theory and the horizontal organization

Although no consensus has emerged for resolving IMC metrics issues (Lee and Park, 2007), there is an increased realization that the magnitude of the IMC data quality problem will require a coordinated effort across the entire organization (Stein and Smith, 2009). This synergistic plan will then enable the creation of customer knowledge that can be used throughout the firm (Hall and Wickham, 2008). Inherent in this view is the belief that organizations must not only “listen” to their customers in their search for appropriate IMC data (Precourt, 2010), but they must also look internally for ways to organize and consolidate cross-functional entities; this coordination must occur throughout the organization, from those who manage core information technology development to those responsible for using data to develop and monitor customer relationships (Rappaport, 2010).

Rubinson (2009) argues that this IMC metric improvement process must be viewed in light of an organizational learning environment where data quality enhancements are part of a corporate culture that places priority on getting closer to customers. Similarly, Wind and Sharp (2009) contend that advancing the technological and IMC measurement capabilities within and across an organization will only occur through a continuous stream of adaptive data processes that identify and respond to data quality shortfalls.

From an organizational learning perspective, having a horizontal communication structure, whereby customer information is exchanged across functions, is an important element for creating an internal environment that improves the quality and management of customer data over time. IMC

scholars and practitioners are increasingly extolling the virtues of having cross-functional organizations (Peltier *et al.*, 2013), specifically with regards to developing and implementing horizontal communication systems (Hadjikhani and Thilenius, 2005; Schultz and Kitchen, 2000; Schultz and Schultz, 2003). From the given literature, we identify the following key dimensions for improving the quality of IMC data available to marketers:

- IMC data vision;
- marketing/IT integration;
- marketing/IT cooperation;
- marketing/IT conflict;
- marketing manager support; and
- data sharing.

Consistent with emerging IMC research, data quality enhancement occurs through the merging of organizational commitment, cross-functional interactions, and effective departmental utilization of cross-platform data (Zahay *et al.*, 2012).

IMC data vision

The trend towards more sophisticated cross-platform data repositories is linked in part to marketing-oriented cultures in organizations and how they place emphasis on developing information-driven and personalized IMC customer contact strategies. In this regard, overcoming poor IMC data requires an organizational culture that places priority on personalizing relationships and building higher levels of customer engagement (Rubinson, 2009). This corporate vision can be implemented with a collective mindset within the organization that recognizes the benefits of cross-platform data to foster and enhance customer value. Supporting this idea, Homburg *et al.* (2007) found that data quality enhancements are “anchored in an organization’s values, belief structures, and norms” (p. 20). Closing the information divide will require a horizontal organizational culture committed to customer centricity, one that begins with upper management and permeates within and across all functional entities responsible for achieving this focus (Swain, 2004; Rappaport, 2010; Rubinson, 2009). Logically, firms with a top-down and organization wide commitment to customer information systems would place high priority on developing and continually improving the quality of their customer database (Salojärvi *et al.*, 2010). We thus posit:

- H1.* An organizational IMC vision committed to securing and using customer information is positively related to IMC data quality.

Marketing and IT system integration, cooperation and conflict

In today’s complex environment, it is difficult for an organization to be successful with a purely functional structure, since functional or divisional silos often create coordination chasms that inhibit change and growth (Keramati *et al.*, 2010; Peltier *et al.*, 2003). Unfortunately, research shows that the information chasm is especially wide between marketing and IT departments, the two functional entities that have the greatest influence on the adoption, utilization and modification of data-intensive IMC and customer contact systems (Zahay and Peltier, 2008). This integration is critically challenging since departments are often limited by functional boundaries and have different views on customer data quality.

Customer data quality is likely to be contingent on having a communication network in place that is cooperative, collaborative, open, and allows users to interact on a frequent basis to set project priorities and generate new project ideas (Cooper *et al.*, 2008). The process of putting the customer database together in a systematic, strategic and quality-focused manner will be even more important in communication flow and the process of learning how the information held in the customer database will benefit all stakeholder groups.

In contrast, inter-functional conflict is expected to have a negative impact on IMC data quality due to the fear of changing the status quo (Keramati *et al.*, 2010), having disparate and even incongruent goals between functional areas, and a host of personality and cultural differences that naturally arise when bringing functional areas together with different ways of thinking and operationalizing (Pascale and Sternin, 2005; Peltier *et al.*, 2002). At issue is the concern that disparate functional areas often differ in how they value specific types of IMC data, particularly with regard to behavioral as compared to more relational/attitudinal data (Zahay *et al.*, 2004). Strategically, cross-functional conflict that surfaces through data quality implementation practices can only be resolved through a process of communication and collaboration that identifies how customer data can be utilized by various internal stakeholder groups (Lindgreen *et al.*, 2009). Ultimately, we expect that the success of IMC data quality initiatives will be a result of how well organizational members are persuaded that these practices have value, and that the time and energy to implement this new way of thinking merits consideration. Based on the preceding discussion, we posit that:

- H2.* Marketing/IT integration is positively related to IMC data quality.
- H3.* Marketing/IT cooperation is positively related to IMC data quality.
- H4.* Marketing conflict/IT is negatively related to IMC data quality.

Marketing manager support and data Sharing

As the link between an organization and its markets, the marketing/advertising and sales functions are responsible for communicating with and managing IMC data (Rust *et al.*, 2010). Importantly, the proliferation of customer touchpoints has changed how IMC data are captured and shared (Richards and Jones, 2008; Voss and Voss, 2008). This transformation means that successful organizations place greater priority on marketing managers and their boundary-spanning ability to acquire and use customer data and for measuring IMC performance (Liu and Comer, 2007). Supporting this view, Zahay and Peltier (2008) find qualitative evidence that the support of marketing managers for collecting and using customer data is a key success criterion for creating high quality customer information systems. Thus we hypothesize:

- H5.* Marketing manager support is positively related to IMC data quality.

Organizations with marketing and communication silos offer few opportunities for sharing customer data (Schultz and Schultz, 2003). Such organizations commonly find it difficult to adhere to IMC principles such as having consistent

messages and cohesive customer contact strategies (Peltier *et al.*, 2006). To overcome these limitations, marketers should focus on sharing customer-level data between different functional areas. Surprisingly, the sharing of customer data is often a concern even within functional units, and especially between marketing and sales personnel (Liu and Comer, 2007). Although little empirical research has examined data sharing and IMC data quality, Zahay and Peltier (2008) indicate that the sharing of customer information between marketing and sales personnel is critical for improving data problems related to information integration, information access, and CRM information quality. Therefore we posit that:

H6. Data sharing is positively related to IMC data quality.

IMC data quality and performance

Within the CRM literature, a small but growing stream of research shows that superior CRM implementation leads to better marketing and business performance (Kim and Kim, 2009; Zahay and Peltier, 2008). Consistent with Stein and Smith (2009), Peltier *et al.* (2002, 2006), and Zahay *et al.* (2004), we would thus expect that superior IMC data is a strong proprietary advantage, one that will lead to a better understanding of customer needs, more satisfied and loyal customers, and greater profitability. Although empirical research linking IMC data quality to organizational performance is sparse, we suggest that:

H7. IMC data quality is positively related to cross-selling capabilities, customer retention, customer satisfaction, and customer ROI.

Method

Background, questionnaire development, and procedure

Augmenting our review of the literature, qualitative research was conducted with 17 managers in five firms to better understand how varied inter- and intra-organizational factors could impact IMC data quality. A survey was then pretested with a sample of 43 business executives. Although the pre-test sample size was relatively small, a factor analysis revealed that the expected dimensionality existed with acceptable Cronbach's α values and provided confidence that the questionnaire was understandable and offered face and content validity. As a result of the pre-test, a larger quantitative test in the financial services industry was conducted. The financial services industry was selected because many firms in this area, such as Royal Bank of Canada, Charles Schwab, and others, have been cited for superior quality customer information use. A national mailing list from Hoovers of 525 banking executives was used. Sample members received a postcard indicating that they would shortly be receiving a survey in the mail. The questionnaire was mailed one week later, and included a \$2 participation incentive, and a self-addressed, stamped envelope. Respondents were given the option of mailing the questionnaire back or completing the questionnaire online via the attached URL. A second mailing was sent to non-respondents approximately 14 days after the mailing was delivered. Finally, two graduate assistants called the

remaining non-respondents, either speaking with them or leaving a voicemail message.

In total, 128 questionnaires were returned. Of these 128 responses, four were removed due to non-response, for a total of 124. This approach resulted in an overall response rate of 24.4 percent, which is comparable to studies that survey business executives (Morrison and Haley, 2006). Respondents' business was split almost equally between B2B and B2C, with any other business coming from trade relationships not asked for or reported in the survey. As Table I shows, 55 percent of the respondents' business is conducted at retail or branch banking locations. These firms relied on outside sales personnel for about 27 percent of their business and the remaining 7 percent of their business came from online sales. The rest of sales (11 percent) came from other sources not reported in the survey. The majority of the respondents (64 percent) were over 45 years old, suggesting a high level of industry experience. Most of the firms (76 percent) reported over \$250m in sales/assets under management.

Independent variables

Independent variables were conceptualized as follows, based on a review of the organizational learning literature and prior work in customer information management:

- IMC data vision – team spirit, common purpose, organizational vision, rewards, and understanding of quality customer information strategy;
- marketing/IT integration – marketing and IT set project priorities together;
- marketing/IT cooperation – marketing and IT cooperate and have compatible goals;
- marketing/IT conflict – marketing and IT experience problems working together;
- marketing manager support – marketing and upper management work together; and

Table I Demographic profile of respondents, firm characteristics

	Mean
Percentage of sales	
Retail sales	55
External sales	27
Online sales	7
Other sources	11
Sales/assets under management	
<50 million	8
51-250 million	16
250.1 million-1 billion	23
1.1-5 billion	30
>5 billion	23
Respondent age	
<35	9
35-44	27
45-54	39
55 +	25

Note: $n = 124$; figures shown are percentages

- data sharing – data are integrated in a single database and is accessible by a single data query tool by those who require the information.

To operationalize these variables, 26 questions related to our IMC data quality framework were considered for inclusion as independent variables in our survey across the dimensions of IMC data vision, marketing/IT integration, marketing/IT cooperation, marketing-IT conflict, marketing manager support, and data sharing. All questions for the scales relating to these variables were measured on a five point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The specific questions used to develop these scales are noted in Table II.

Dependent variables

Data quality

Data quality was conceptualized according to the work of Wang and Strong (1996) and based on the work of Zahay and Griffin (2004). In general, data are of high quality if they are perceived to be so by the users of data along relevant dimensions. Three questions were used to measure data quality in this research: data accuracy, data consistency, and overall data quality. Data quality perceptions were measured on a five-point scale ranging from 1 = poor to 5 = excellent.

Customer metrics

Using a five-point scale (“To the best of your knowledge, please rate your business units’ performance in the past 2-3 years relative to the competition on the following: 1 = lower to 5 = higher”), respondents rated their customer-based performance on four dimensions:

- 1 cross-selling;
- 2 customer retention;
- 3 customer satisfaction; and
- 4 ROI on a customer basis.

A summated customer metric score across the four variables was also calculated.

Results

To assess dimensionality, the data were first subjected to an orthogonal principal components factor analysis. For the independent variables, as shown in Table II and consistent with expectations, six organizational factors loaded as hypothesized:

- 1 marketing-IT integration (five items, $\alpha = 0.93$);
- 2 IMC data vision (seven items, $\alpha = 0.91$);
- 3 marketing manager support (four items, $\alpha = 0.83$);
- 4 marketing/IT conflict (four items, $\alpha = 0.73$);
- 5 data sharing (three items, $\alpha = 0.88$); and
- 6 marketing/IT cooperation (two items, $\alpha = 0.74$).

The three data quality items – data accuracy, data consistency, and overall data quality – were subjected to a principal components factor analysis to determine dimensionality. All three loaded on one factor (factor loadings of 0.93, 0.91, 0.96, variance explained = 85 percent). The three quality variables were summated to create a measure of overall customer data quality ($\alpha = 0.88$).

The four customer metrics items – cross-selling, customer retention, customer satisfaction, and ROI on a customer basis – were analyzed individually.

The reliability of the measures all reached satisfactory levels for theoretical model development; coefficient α (Hair *et al.* 1998) exceeded the 0.7 benchmark (Nunnally, 1978) for reflective scales and as such established construct reliability. Table III provides the mean quality scores for each of the IMC data quality measures. Table IV shows the mean scores for each of items within the six organizational learning factors. Table V contains the mean customer metric scores.

The means analysis by itself holds a number of important implications. First, although the mean IMC data quality scores for all three dependent measures were above the midpoint, there is considerable room for improvement with respect to IMC data quality metrics in the respondent organizations. Second, regarding organizational learning factors, only the marketing manager support dimension had a mean score of 4.0 or above, suggesting that although there appears to be good intra-department communication and support in the organizations studied here, other areas need to improve. There is room to develop more horizontal communication activities needed for developing quality IMC data systems, particularly data sharing. Last, except for customer satisfaction, the findings for the IMC performance metrics suggest that current practices have not fully leveraged the value of having good data as a means of creating deep customer relationships. Finally, much improvement also seems to be needed in the area of sharing customer data.

A regression analysis tested six of our hypotheses using the factor scores for the six organizational dimensions as independent variables and a summated data quality variable as the dependent variable. As can be seen from Table VI, the overall model was highly significant, with five of the six organizational variables being significant predictors of overall data quality ($R^2 = 0.399$, $F = 12.8$, $p < 0.001$). IMC data vision ($H1$) had the largest impact on respondents’ perception of overall data quality ($\beta = 0.524$, $t = 7.3$, $p < 0.001$). The next most important organizational variables were data sharing ($H6$; $\beta = 0.203$, $t = 2.8$, $p < 0.01$) and marketing/IT cooperation ($H3$; $\beta = 0.185$, $t = 2.6$, $p < 0.01$). The remaining two significant variables were marketing/IT system integration ($H2$; $\beta = 0.153$, $t = 2.1$, $p < 0.05$) and marketing manager support ($H5$; $\beta = 0.149$, $t = 2.1$, $p < 0.05$). Marketing/IT conflict ($H4$) was not significant in our model as relating to overall IMC data quality.

Lastly, one-tailed correlations were calculated between summated data quality and each of the customer-performance metrics. As shown in Table VII, $H7$, which predicts a positive relationship between IMC data quality and varied customer metrics, is supported by this analysis. The highest correlation was found between overall data quality and customer satisfaction ($r = 0.284$, $p < 0.001$), followed by customer retention ($r = 0.24$, $p < 0.01$), customer ROI ($r = 0.212$, $p < 0.01$) and customer cross-selling ($r = 0.173$, $p < 0.05$). Although not specifically hypothesized a priori, a summated customer metric score was also calculated ($\alpha = 0.70$). This aggregated customer metric had a stronger positive association with IMC data quality ($r = 0.301$, $p < 0.001$) than the individual metrics.

Discussion and conclusions

This research suggests that one problem with the management and measurement of cross-channel IMC

Table II Factor analysis, independent variables: organizational learning and horizontal communication dimensions

	Marketing/IT integration	IMC data vision	Marketing manager support	Data sharing	Marketing/IT conflict	Marketing/IT cooperation
Marketing is involved with IT in setting new project schedules	0.870					
Marketing is involved with IT in generating new project ideas	0.865					
Marketing is involved with IT in setting new project goals/priorities	0.853					
Marketing provides customer requirements for new IT projects	0.786					
Marketing/IT frequently discuss the quality of the customer data	0.737					
Marketing is involved in developing new IT projects	0.714					
There is agreement of our "organizational vision" for managing customer information		0.846				
We share our vision across the organization for how we manage customer info		0.815				
There is a "common purpose" in the management of customer information		0.789				
Our customer information management team is rewarded for good performance		0.770				
We use cross-functional teams when managing customer information		0.753				
A team spirit pervades our ranks in the management of customer information		0.687				
There is universal understanding of how we manage customer information		0.591	0.773			
We feel comfortable calling our upper management when the need arises			0.741			
Our marketing management is responsive to our customer info management ideas			0.726			
Our upper management is responsive to our customer information ideas			0.669			
Marketing managers can easily schedule meetings with upper management				0.947		
All customer databases are accessible by a single data query tool				0.878		
All our customer databases are integrated in a single data repository				0.795		
All our customer databases are easily accessible by those who need them					0.786	
Marketing/IT experienced problems coordinating work activities					0.749	
Marketing and IT hinder others' performance					0.703	
Marketing and IT have senior managers at odds					0.632	
Marketing and IT compete for the same resources						0.725
Marketing and IT cooperated with each other						0.712
Marketing and IT had compatible goals						0.74
Coefficient α reliability statistics	0.93	0.91	0.83	0.88	0.73	

Table III Mean scores: IMC data quality measures

Data quality measures	Mean	SD
Overall consistency of IMC data	3.36	1.05
Overall accuracy of IMC data	3.54	1.06
Overall quality of IMC data	3.41	0.96

Notes: Scale: 1=poor to 5=excellent; $n=124$

Table IV Mean scores: organizational learning factors

IMC performance measures	Mean	SD
IMC data vision	3.22	0.91
Marketing and IT integration	3.21	1.07
Marketing/IT cooperation	3.50	0.93
Marketing/IT conflict	2.64	0.91
Marketing manager support	4.00	0.78
Data sharing	2.64	1.21

Notes: Scale: 1 = lower to 5 = higher; $n=124$

Table V Mean scores: customers metrics

IMC performance measures	Mean	SD
Cross-selling performance	3.04	1.07
Customer retention	3.53	1.01
Customer satisfaction	4.03	0.85
Customer ROI	3.31	0.95

Notes: Scale: 1 = lower to 5 = higher; $n = 124$

Table VI Regression analysis results: organizational learning and horizontal communications dimensions on overall quality of IMC data

	β coefficient	t-value	Significance
IMC data vision (H1)	0.524	7.3	0.001
Marketing and IT integration (H2)	0.153	2.1	0.05
Marketing/IT cooperation (H3)	0.185	2.6	0.01
Marketing/IT conflict (H4)	-0.053	-0.73	NS
Marketing manager support (H5)	0.149	2.1	0.05
Data sharing (H6)	0.203	2.8	0.01

Notes: $R^2 = 0.399$; $F = 12.8$; $p < 0.001$; $n = 124$

Table VII Correlation results: IMC data quality and customer-performance metrics (H7)

	Pearson correlation	Significance
Cross-selling efforts	0.173	0.05
Customer retention	0.240	0.01
Customer satisfaction	0.284	0.001
Customer ROI	0.212	0.01
Summated customer metric score	0.301	0.001

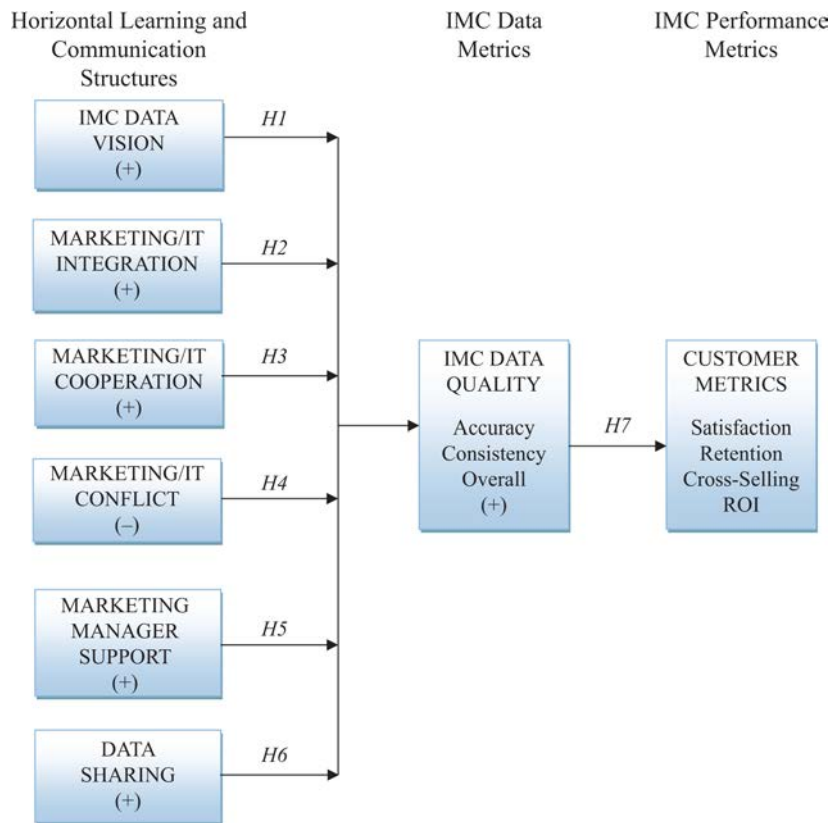
communication is that firms traditionally focus on what comes out of the marketing process, rather than what goes into it. Therefore, it appears that IMC data quality is an under-studied and under-utilized mechanism for understanding successful (and unsuccessful) IMC programs. This exploratory study focused on defining horizontal communication as a key antecedent to IMC data quality. Our findings provide a signal to marketing organizations that want to connect with their customers that data quality must be a strategic priority, with appropriate processes in place to manage data at every touchpoint. This study also indicates that by breaking down communication silos in the form of marketing/IT integration and marketing/IT cooperation, firms can help create and sustain a sound IMC database. In contrast to H4, our results show that superior marketing/IT integration may overcome the effects of any day-to-day conflicts between marketing and IT. At the departmental level, these data show that managerial support is critical to improving IMC data quality as is the sharing of data, a key criterion for organizational learning.

This paper offers theory and literature on horizontal communications structures to identify organizational factors that influence the development of customer data quality practices, as well as the relationship between data quality and customer-performance metrics (see Figure 1). The proposed conceptualized model was broadly supported, with five of the relationships tested in a regression model showing a significant impact on perceived IMC data quality. The regression analysis highlighted in particular that having an IMC data vision, i.e. one that is communicated and applied across an organization, leads to superior data quality. These results contribute to academic and practitioner knowledge of effective information transfer within organizations as it relates to understanding and responding to customer needs and behaviors and developing proprietary and sustainable competitive advantages.

The findings here also contribute to the extant literature regarding the important role that IMC plays in an organization by providing evidence that data quality and customer performance go hand in hand. It appears that there is a positive relationship between IMC data quality and customer-based metrics commonly used by IMC planners (Zahay *et al.*, 2012). Specifically, IMC data quality was positively related to each of the four customer metric variables, and these relationships were strongest when we using a summated customer metric variable. In particular, by showing that data quality is positively related to customer performance, this study focuses on the critical connection between communications factors within an organization and IMC data quality. As Grove *et al.* (2007) suggest, a successful IMC strategy is especially important in services and financial organizations due to the intangibility of their offerings and customer perceptions of risk.

Also of note, these organizations did not report a high degree of marketing/IT conflict or data sharing capabilities, with both means being well under 3.0. However, whereas data sharing was significant in our model, and Marketing/IT conflict was not. Therefore, in spite of public perceptions that marketing and IT often conflict with each other in setting priorities and compete for the same resources, these disagreements do not seem to be related to IMC data quality in these organizations. One possible explanation for this result is that organizational support and processes for

Figure 1 Organizational learning, horizontal communication and IMC data quality model



cooperation and sharing throughout the organization overwhelm the effects of day-to-day inter-departmental conflicts. Focusing on positive processes can overwhelm what seems to be a difficult working situation.

Strategically, to attain IMC data quality, an organization must show a strong commitment at all levels in the organization, from top management to inter-functional communications to intra-departmental structures and actions. Figures 2 and 3 summarize the implications of our study. As shown in Figure 2, we propose a cycle of IMC (Figure 2) that is fostered by an effective horizontal alignment process. In the five-step customer data and IMC process

indicated in Figure 2, assessing data quality follows the three steps which involve identification of the data, cross-functional development and implementation of a customer valuation system, and creation of advertising communications.

As can be seen in this model, quality customer data can be maintained through horizontal communication and is tied to the identification and measurement of customer-based metrics. The assessment step of the cycle (Step 4) allows organizations to take both a backward looking (through measures of customer satisfaction or customer retention, for example), as well as a forward-looking (assessing customer commitment and loyalty, for example) approach to CRM.

Figure 2 The five-step customer data and integrated marketing communication process

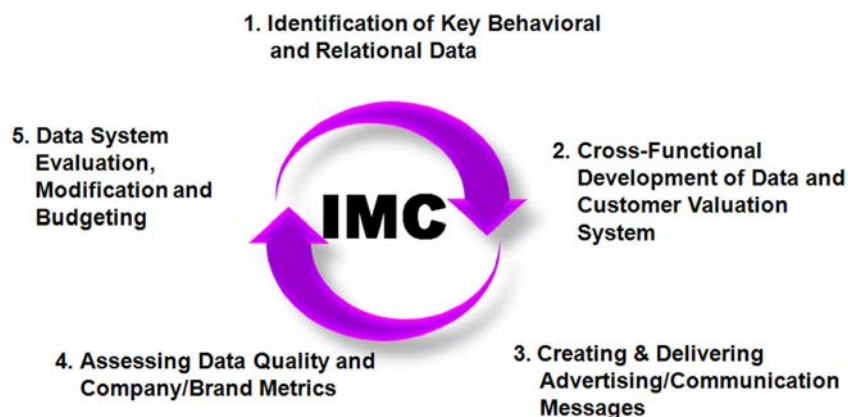
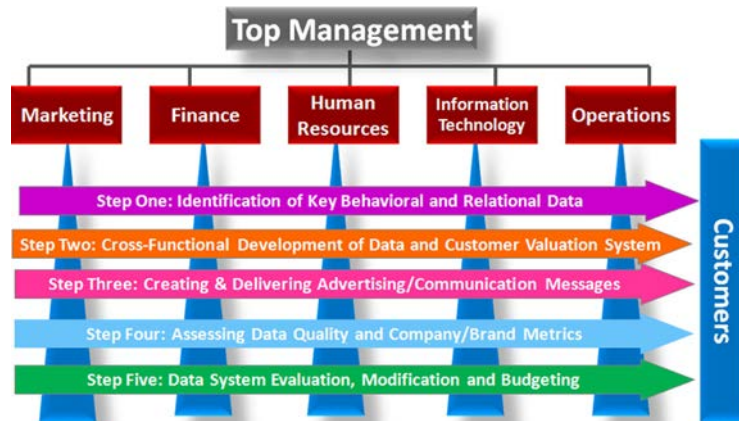


Figure 3 Horizontal alignment using the five-step process

Step 5 of Figure 2 merges the model and highlights the importance of internal communications for creating quality data which in turn can lead to assessment processes to determine the success of important customer-based metrics.

Figure 3 further clarifies the steps presented in Figure 2 and underscores the importance of horizontal communications for developing quality data for IMC applications. Figures 2 and 3 collectively illustrate that the learning processes shown in Figure 2 in combination with horizontal alignment create a structure by which organizations are able to implement standardized processes and communication structures and offer superior benefits and outcomes for customers. The cycle in Figure 2 shows that as organizations learn more internally and streamline essential processes, they will also form better customer knowledge repositories and hence improve their customer satisfaction, retention, etc. Figure 3 demonstrates that top management support and horizontal integration and coordination facilitate the learning process. One of the most important tenants of this important cycle is the starting point, which is the identification of key behavioral and relational customer data. Unless the data is of high quality, however, the entire cycle is difficult to maintain.

Our findings provide a clear signal to marketing organizations that want to connect with their customers that data quality must be a strategic priority, with appropriate processes in place to manage data at every touch point inside and outside of the organization (Zahay *et al.*, 2004). Without this commitment, it is virtually impossible to maintain cooperation across all functional areas (Peltier *et al.*, 2006, 2013). Internal communication structures in the organization are thus an important predictor of the quality of data that will be stored and utilized while communicating with customers. In fact, our results indicate a path for managers by which to achieve quality customer data, one which should lead to the goal of multi-channel IMC efforts. As with most successful programs in IMC, the challenge comes not in the conceptualization, but in the implementation. For example, “functional silos” have often been said to result in difficulties with cross-functional communication. Our data suggest that it is these communication problems, more than inter-departmental conflicts, which result in “data silos” in an organization. In essence, departments must form business relationships which foster cooperative exchanges as opposed to unproductive conflicts (Mandják and Szántó, 2010).

Limitations and future research

Although our exploratory study advances the IMC data quality literature, much more work needs to be done to fully understand the interplay between various organizational factors, IMC data quality and, ultimately, customer-based metrics. Research is thus needed to investigate whether similar relationships exist outside of financial services and in product-oriented firms. Another limitation is that while our sample size was large enough to accomplish our objective of uncovering and testing the relationship between organizational dimensions and IMC data quality, our work could be strengthened by larger-scale studies that utilize structural equation analyses to develop a richer understanding of the relationship between these and other dimensions and IMC data quality. For example, some of the antecedent organizational variables, such as marketing/IT cooperation, may function as mediators between teamwork and vision and IMC data quality. Similarly, further studies are needed to examine whether IMC data quality mediates the relationship between the organizational variables and customer metrics. Lastly, while we primarily focused on intra-departmental support and data sharing, the relationship between marketing and sales integration, so important in B2B marketing, branding and overall data quality, could also be added to the research agenda. (Blombäck and Axelsson, 2007).

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Executive summary and implications for managers and executives

This summary has been provided to allow managers and executives a rapid appreciation of the content of the article. Those with a particular interest in the topic covered may then read the article in toto to take advantage of the more comprehensive description of the research undertaken and its results to get the full benefit of the material present.

What every business organization needs to know is whether or not it is effectively communicating its message to its customers. The rise of customer relationship management systems, combined with the merging of new media and traditional communication channels has dramatically altered the landscape of integrated marketing communication. But without sound customer data, knowing whether an effective message is being delivered can be little more than a guess.

These changes make integrated marketing communication (IMC) a more critical strategic and tactical tool, increasing the need for organizations to better understand how and in what form IMC should be developed and deployed. In response to a growing need for IMC, marketers are trying to break down their existing internal "communication silos" to include cross-organizational processes. They are beginning to use cross-platform campaigns, such as mixing traditional media with interactive and social media, public relations, sponsorships, events, product placements, and other forms of

customer-focused IMC promotions designed to interact with customers at the time and place of their choice.

Despite the development of these wide-ranging innovations in media planning and CRM platforms that enable data-driven messaging and contact strategies, there is an increasing concern that these technological advances have outpaced our ability to measure the effectiveness of IMC efforts in today's multi-channel, multi-touch point communication environment. Much of this difficulty is due to the fact that relatively few organizations have evaluative mechanisms and metrics in place for managing, controlling, and assessing the effectiveness of CRM-based IMC. Consequently many cross-platform IMC initiatives have not lived up to their potential.

In "Organizational processes for B2B services IMC data quality", Professor Debra Zahay *et al.* provide a clear signal to marketing organizations that want to connect with their customers that data quality must be a strategic priority, with appropriate processes in place to manage data at every touch point inside and outside the organization. Without this commitment, they warn, it is virtually impossible to maintain cooperation across all functional areas.

The research suggests that one problem with the management and measurement of cross-channel IMC communication is that firms traditionally focus on what comes out of the marketing process, rather than what goes into it. Therefore, it appears that IMC data quality is an understudied and underutilized mechanism for understanding successful (and unsuccessful) IMC programs. Strategically, to attain IMC data quality, an organization must show a strong commitment at all levels in the organization, from top management to inter-functional communications to intra-departmental structures and actions.

Internal communication structures in the organization are an important predictor of the quality of data that will be stored and utilized while communicating with customers. The study results indicate a path for managers by which to achieve quality customer data, one which should lead to the goal of multi-channel IMC efforts. As with most successful programs in IMC, the challenge comes not in the conceptualization, but in the implementation. For example, "functional silos" have often been said to result in difficulties with cross-functional communication. This study's data suggest that it is these communication problems, more than inter-departmental conflicts, which result in "data silos" in an organization. In essence, departments must form business relationships which foster cooperative exchanges as opposed to unproductive conflicts.

The authors develop and test an exploratory model to investigate whether a horizontally-organized, learning organization has better IMC data, and whether such data leads to superior customer-driven metrics. Specifically, they examine how various horizontal learning and communication structures impact the accuracy, consistency and overall quality of IMC data collected by an organization. They then assess the extent to which IMC data quality relates to four customer metrics:

- 1 satisfaction;
- 2 retention;
- 3 cross-selling; and
- 4 customer ROI.

Although no consensus has emerged for resolving IMC metrics issues, there is an increased realization that the magnitude of the IMC data quality problem will require a coordinated effort across the entire organization. This synergistic plan will then enable the creation of customer knowledge that can be used throughout the firm. Inherent in this view is the belief that organizations must not only "listen" to their customers in their search for appropriate IMC data, but they must also look internally for ways to organize and consolidate cross-functional entities. This coordination must occur throughout the organization, from those who manage core information technology development to those responsible for using data to develop and monitor customer relationships.

The study proposes a cycle of IMC, fostered by an effective horizontal alignment process. The five steps are:

- 1 identification of key behavioral and relational data;
- 2 cross-functional development of data and customer valuation system;
- 3 creating and delivering advertising/communication messages;
- 4 assessing data quality and company/ brand metrics; and
- 5 data system evaluation, modification and budgeting.

The authors maintain that one of the most important aspects of the cycle is the starting point – the identification of key behavioral and relational customer data.

(A précis of the article "Organizational processes for B2B services IMC data quality". Supplied by Marketing Consultants for Emerald.)