This is a self-archived version of an original article. This version may differ from the original in pagination and typographic details.

Author(s): Salonen, Anna; Mero, Joel; Munnukka, Juha; Zimmer, Marcus; Karjaluoto, Heikki

Title: Digital content marketing on social media along the B2B customer journey : The effect of timely content delivery on customer engagement

Year: 2024

Version: Published version

Copyright: © 2024 The Authors. Published by Elsevier Inc.

Rights: CC BY 4.0

Rights url: https://creativecommons.org/licenses/by/4.0/

Please cite the original version:
Digital content marketing on social media along the B2B customer journey:
The effect of timely content delivery on customer engagement

Anna Salonen a, *, Joel Mero a, Juha Munnukka a, Marcus Zimmer b, Heikki Karjaluoto c

a Marketing, University of Jyväskylä, School of Business and Economics, P.O. Box 35, FI-40014 Jyväskylä, Finland
b ZHAW School of Management and Law, Winterthur, Switzerland
c Technology Management and Information Systems Science, University of Jyväskylä, Finland

ARTICLE INFO
Keywords:
Business-to-business
Customer journey
Digital marketing
Experiment
Digital content marketing
Social media content types

ABSTRACT
This study demonstrates the importance of content timeliness as a driver of engagement in business markets. Through an experimental approach, we show that if the customer is exposed to firm-generated content that he or she deems relevant in a particular journey stage, this leads to higher customer engagement with the selling firm and the content that it generates. We contribute to extant understanding of digital content marketing research in a B2B context by demonstrating that there are no universally correct sequences for presenting content to customers at different stages of the customer journey in order to systematically increase engagement. Instead, the findings suggest that the types of content customers prefer to see in different journey stages varies between individuals. For managers hoping to benefit from digital content marketing, we advocate further investments into technologies that improve the selling firm’s ability to target content based on the customer’s idiosyncratic use needs at different journey stages.

1. Introduction

The ease of access to high-quality content in digital channels has enabled business buyers to navigate purchasing processes more independently, offering salespeople fewer opportunities to influence buying decisions. For example, Gartner (2020) found that, when considering a purchase, the average business buyer spends only 17% of their time on meetings with potential suppliers while 27% of their time is spent on independent online searches. Therefore, to tap into the contemporary digital shift, sellers need to provide content that helps the target customers to complete their buying tasks at different stages of the buying journey. As a result, digital content marketing (DCM) has emerged as a key marketing communications paradigm in business markets (Holliman & Rowley, 2014; Järvinen & Taiminen, 2016; Terho, Mero, Siutla, & Jaakkola, 2022).

In the B2B context, valuable content can include white papers that explicate key industry trends, educational webinars that help customers to frame their business problems, customer success stories showcasing how customers have solved problems with the help of solutions offered by sellers, product demos, or how-to-videos. At the same time, DCM scholars (Holliman & Rowley, 2014; Järvinen & Taiminen, 2016; Terho et al., 2022; Wall & Spinuzzi, 2018) and practitioners (see, e.g., Lin, 2015; Polewarczyk, 2021; Riserbato, 2021; AIContentfy, 2023) alike emphasize that having valuable content is not enough if it is not delivered in a timely manner to the right audience.

Timeliness in the B2B context relates critically to the ability to match relevant content to the customer’s use needs at different journey stages (Terho et al., 2022). However, such matching is difficult to achieve in practice. To overcome this problem, firms are increasingly relying on marketing automation technologies to sequentially target firm-generated content at generic buyer persona profiles in different stages of the customer journey (Terho et al., 2022; Terho, Salonen, & Yrjänäinen, 2023). The purpose of doing so is to generate engagement, which is known to lead to positive firm-level outcomes, such as improved brand attitudes or sales performance (Taiminen & Ranaweera, 2019; Wang, Malthouse, Calder, & Uzunoğlu, 2019).

Prior quantitative research in the DCM domain has focused on message features, styles, goals, and appeals as the generalizable drivers of content engagement (see, e.g., Deng, Wang, Rod, & Ji, 2021; Juntunen, Ismagilova, & Oikarinen, 2021; Meire, Coussement, de Caigny, Uzunoglu, 2019; Spinuzzi, 2018) and practitioners (see, e.g., Lin, 2015; Polewarczyk, 2021; Riserbato, 2021; AIContentfy, 2023) alike. Although this research has uncovered some characteristics of engaging content, there...
are important gaps. First, these studies only measure content engagement via visible content engagement metrics (i.e., likes, comments, shares/retweets) and are thus unable to determine whether engagement drives the intended firm-level outcomes. Also, these studies are unable to unveil the relationship between timely content delivery and content engagement.

To address these gaps in the extant knowledge, we build on the uses and gratifications (U&G) framework (Katz & Foulkes, 1962) to test the effects of content timeliness on engagement. To do so, we propose the following research question: Does the customer’s perception of content timeliness influence the customer’s willingness to engage with the seller and the content that it generates? To examine this question, we implemented an online scenario experiment that allowed us to experimentally manipulate the timing of content exposure along a fictitious B2B customer journey.

This study contributes to the extant understanding of B2B DCM by demonstrating that timely content delivery drives customers’ content engagement, which also has positive effects on sales-related outcomes. In doing so, the results of this study suggest that there are no universally correct sequences for presenting content to customers at different stages of the purchase journey to systematically increase engagement (cf. Terho et al., 2022). Instead, the findings suggest that the types of content that customers prefer to see in different journey stages varies widely between individuals. For managers hoping to benefit from DCM, we thus advocate further investments into technologies that allow the more fine-grained behavioral targeting of firm-generated content. This is needed to improve the focal firm’s ability to target content based on the customer’s idiosyncratic use needs at different journey stages.

This paper is structured as follows: we first ground our proposed research model in the extant B2B DCM research. We then explain how we tested the model using an experimental research design, which is followed by a presentation of the results. In the concluding section, we outline the theoretical and practical implications of the study, discuss its potential limitations, and provide suggestions for further research.

2. Literature review and hypotheses development

2.1. Extant research on B2B DCM

Holliman and Rowley (2014) were the first scholars to explore the DCM concept in business markets. Their key finding was that DCM represents a cultural shift in marketing, a shift from overt selling to helping that is manifested by organizational efforts to engage customers by creating and sharing valuable and timely content in order to meet customer needs at different stages of the customer journey. More formally, DCM refers to “a digital marketing communication approach that generates intelligence about customer journeys, develops a valuable content portfolio that facilitates problem-solving for key buyer personas at different journey stages, and engages customers by sharing content matched to their timely needs” (Terho et al., 2022, p. 300).

In terms of the consequences of B2B DCM, extant research recognizes the role of DCM as a driver of sales-related outcomes, and brand and customer relationships. For instance, by comparing DCM efforts (i.e., digital events and digital website content) with in-person events, Wang et al. (2019) found that DCM efforts are a more effective means to acquire sales leads. Taiminen and Runaveera (2019) took a relational approach and identified several helpful brand actions in a B2B setting that foster brand engagement, relationship value perceptions, and brand trust.

In the context of social media, several studies have investigated various B2B content characteristics (e.g., linguistic styles, message features, and appeals) and their effects on content engagement (e.g., likes, comments, shares/retweets) on social networking services (see, e.g., Cheng, Liu, Qi, & Wan, 2021; Deng et al., 2021; McShane, Pancer, & Poole, 2019; Meire et al., 2022). This research has primarily applied content analysis techniques in order to analyze engagement, and the studied contexts include Twitter (currently known as X), Facebook, and LinkedIn (see, e.g., Deng et al., 2021; Juntunen et al., 2021; Meire et al., 2022; cf. Cortez et al., 2023).

These studies have advanced our knowledge of the characteristics of engaging B2B social media content. For instance, in comparison to business-to-customer (B2C) firms, B2B firms (1) are more prone to using corporate brand names, (2) employ more functional appeals and less emotional appeals in social media content, and (3) embed links and other cues for additional information search, but (4) rarely use direct calls to purchase or other hard selling approaches (Swani, Brown, & Milne, 2014; Swani, Milne, Brown, Assaf, & Domthu, 2017; Zhang & Du, 2020).

At the same time, extant studies based on content analyses and visible engagement metrics are limited in three important ways. First, these studies cannot control who is exposed to content, which means that the engaged users may include, for example, employees, investors, and even the general public. Therefore, the results cannot be specifically tied to B2B buyers. Second, since the engagement metrics are based on aggregated data, the content analyses are unable to explain how individual-level differences influence engagement with firm-generated content. This is problematic since we know that B2B buying is influenced by the actions and opinions of multiple buying personas with varying needs and preferences at different stages in the customer journey (see, e.g., Terho et al., 2022). Third, since the findings derived from content analyses are limited to visible content engagement metrics (i.e., likes, comments, shares/retweets), it is difficult to determine whether content engagement affects firm-level outcomes (cf. Cortez et al., 2023). Thus, we do not know if content engagement on social media leads to positive firm-level outcomes, such as, improved brand attitudes or purchasing decisions (John, Emrich, Gupta, & Norton, 2017).

To sum up, the B2B DCM literature widely perceives customer engagement as the primary goal of DCM efforts, which are considered to ultimately lead to positive business outcomes, such as improved sales, brand, and customer-relationship performance (Cortez et al., 2023; Hollebeek & Macky, 2019; Holliman & Rowley, 2014; Sundström, Alm, Larsson, & Dahlin, 2021; Terho et al., 2022). However, most quantitative research on B2B DCM has so far focused on factors that drive content engagement (e.g., likes, comments, shares, and retweets; see, e.g., Meire et al., 2022) on social media platforms (mainly Twitter and Facebook), while the relationship between content engagement and firm-level outcomes remains largely unexplored. Furthermore, despite the efforts to create content typologies that are proposed to suit different stages of the customer journey (Terho et al., 2022), we are not aware of any studies that have empirically examined customer perceptions regarding the fit of different content types to various stages of the B2B customer journey, nor are we aware of any studies on the effects that these perceptions of fit have on the outcomes pursued by the seller.

2.2. Relevant B2B content types

Shahbazezehad, Dolan, and Rashidirad (2021) argued that engaging content can be divided into three major categories: rational, transactional, and interactional content. Rational content provides resourceful and helpful information, while transactional content provides direct encouragement towards a sale (for instance, through a new product or service announcement or through offering online coupons, discounts, and contests). Interactional content emphasizes experiential, emotional, and relationship-building types of content that address the customer’s desire for integration and social benefits.

As to the specific types of content to be shared in different stages of the customer journey in order to generate engagement, prior research provides only limited guidance (see Terho et al., 2022 for an exception). We build on the broad categorization proposed by Shahbazezehad et al. (2021) and focus on three specific types of content that are expected to be relevant in a B2B setting: educational content (rational content),
customer-engagement in a B2C context, we expect that B2B buyers papers or educational webinars. customer-driven problem-solving processes (Ahearne, Atefi, Lam, (Cortez et al., 2023). As such, this type of content does not make a direct ally an important means for customers to assess their willingness to enter and emotional factors typical of B2C markets. However, non-economic decision-making in B2B markets, taking precedence over the cognitive related content (which is aligned with what Cortez et al., 2023 term appreciate information that allows them to understand an offering customer to select the right solution for their needs. While Tafesse provides customers with product-related information that can help the customer journey depends on the customer in question since use moti

2.2.1. Educational content

Educational content captures the idea of Terho et al. (2022) who highlighted the importance of thought-provoking content that is aimed at helping customers to frame their business problems in the early stages of the purchase journey. Such content leverages the provider’s knowledge of emerging technologies and the changing needs of the market (Cortez et al., 2023). As such, this type of content does not make a direct connection to the seller’s offering; instead, it is designed to enhance the customer’s perception of trust in the firm’s competences. The provision of educational content is in line with observed changes in B2B buying behavior whereby the role of sellers is to increasingly facilitate customer-driven problem-solving processes (Ahearne, Atefi, Lam, & Pournasoudi, 2022). Examples of educational content include white papers or educational webinars.

2.2.2. Product-related content

Unlike educational content, which is focused on the customer’s problem, product-related content has clear promotional qualities. It provides customers with product-related information that can help the customer to select the right solution for their needs. While Tafesse (2015) did not find a clear link between product-related content and customer engagement in a B2C context, we expect that B2B buyers appreciate information that allows them to understand an offering’s specifications and make comparisons. Concrete examples of product-related content (which is aligned with what Cortez et al., 2023 term sales posts), include content on new product/service features, new or updated marketing channels, new or updated pricing (e.g., discounts), value propositions, and customer assessments/referrals.

2.2.3. Cause-related content

Traditionally, rational factors (such as price, delivery terms, and technical quality) have been recognized as important factors that drive decision-making in B2B markets, taking precedence over the cognitive and emotional factors typical of B2C markets. However, non-economic factors, including social connectedness (Weber, 2008), are additionally an important means for customers to assess their willingness to enter and maintain relationships with suppliers (Han & Lee, 2021).

This shift has implied a growing focus on discretionary forms of corporate social responsibility (Carroll & Shabana, 2010) whereby firms increasingly embed awareness of social and political causes into the firms’ marketing communications to encourage behavioral and socio-political change (Barone, Miyazaki, & Taylor, 2000; Moorman, 2020; Vredenburg, Kapitan, Spry, & Kemper, 2020), thus extending the reach of their CSR activities beyond legal and ethical requirements (Godfrey et al., 2009). Cause-related content does not directly help to frame the customer’s problem, nor does it provide information about the seller’s offering. However, it provides customers with information about the provider’s values and behavioral dispositions. Examples of such content include a focus on supporting a charity or raising awareness of an important social cause.

2.3. Engaging customers with timely content

Interaction with social media content is typically referred to as content engagement. The more customers interact with the firm’s content, the higher the level of the customer engagement that is created (Kumar & Pansari, 2016; Malthouse, Haenelein, Skiera, Wege, & Zhang, 2013). The process of developing social media marketing strategies begins with understanding the firm’s social media marketing objectives and the customer’s social media use motivations (Li, Larimo, & Leonidou, 2021). This understanding then forms the basis for deciding the type of content that is shared and the choice of appropriate channels (Ancillai, Terho, Cardinali, & Pascucci, 2019; Leek, Houghton, & Canning, 2019; Yaghthin, Safarzadeh, & Karimi Zand, 2020).

DCM scholars (Hollimann & Rowley, 2014; Järvinen & Taïmeni, 2016; Terho et al., 2022; Wall & Spinuzzi, 2018) and practitioners (see, e.g., Lin, 2015; Polewarczyk, 2021; Riserbato, 2021; AIContentfy, 2023) alike emphasize that having valuable content is not enough if it is not delivered in a timely manner. Further, timeliness critically relates to the ability to match relevant content to the customer’s use needs at different journey stages (Terho et al., 2022).

To facilitate timely content delivery, firms have increasingly invested in marketing automation technologies in order to sequentially target firm-generated content at generic buyer persona profiles in different stages of the customer journey (Terho et al., 2022; Terho et al., 2023). Consequently, multiple prior DCM studies investigate the role of technologies in supporting content marketing efforts along the B2B customers’ purchasing process. For example, Järvinen and Taïmeni (2016) showcased the role of marketing automation in personalizing digital content delivery to customer needs at different phases of the B2B sales funnel. Similarly, Mero, Leinonen, Makkonen, and Karjaluoto (2022) discussed the synergistic roles of content marketing and marketing automation software in supporting the sales lead management process.

Pre-designed content automation sequences reflect models based on the hierarchy of effects, such as the Attention–Interest–Desire–Action (AIDA) or Reach–Act–Convert–Engage (RACE) models, which have been widely applied in B2B contexts (see, e.g., Lichtenthal, Yadav, & Donthu, 2006; Chaffey & Patron, 2012; Cassidy, Nyadzayo, Mohan, & Brown, 2018). These models assume that customers have different informational needs at different stages of the purchasing process and that firms can shape customer journeys by designing a streamlined and compelling sequence of content that nudges customers to business building outcomes (Edelman & Singer, 2015; Terho et al., 2022). For instance, thought-provoking content is generally thought to fit the pre-purchase phase and product-focused content is thought to fit the purchase phase (Terho et al., 2023).

As opposed to the effect-oriented research traditions that adopt the communicator’s view, in this study we rely on the uses and gratifications (U&G) framework, which focuses on the viewpoint of the customer (Aitken, Gray, & Lawson, 2008) and has been utilized to understand social media engagement behavior (Dolan, Conduit, Fahy, & Goodman, 2016; Li et al., 2021; Maslowska, Malthouse, & Collinger, 2016; Muntinga, Moorman, & Smit, 2011; Rohm, Kaltcheva, & Milne, 2013). According to the U&G framework, social media engagement behavior is driven by the gratification of social media use motivations.

Interpreted through the lens of the U&G framework, the provision of educational, product-related, and cause-related content is a potential means of fulfilling the different gratification needs of customers. The type of content that is appreciated by customers in different stages of the customer journey depends on the customer in question since use motivations are subjectively determined (Ku, Chu, & Tseng, 2013). However, if the seller can provide content that meets the customer’s individual use gratifications—for instance, by applying sophisticated behavioral targeting (Upreti et al., 2021; Zhang & Li, 2019)—this should lead to higher content engagement. We thus hypothesize as follows:

H1. If the customer is exposed to educational content (H1a), product-related content (H1b), and cause-related content (H1c) when the customer perceives it as fitting a particular journey stage, this then leads to higher levels of content engagement.

A key goal of the seller in sharing timely and relevant content that fits the customer’s situation is to activate and facilitate the buying process (Agnihotri, Dingus, Hu, & Kush, 2016; Agnihotri, Kothandaraman, Kashyap, & Singh, 2012; Cortez et al., 2023; Zinckевич & Ghekiere, 2019). A direct link between DCM and sales performance is difficult to
demonstrate in B2B due to the complex nature of B2B buying (Cortez et al., 2023; Lilien, 2016). However, lead scoring models prevalently used in firms trigger the initiation of face-to-face sales activities as a consequence of customers’ consumption of social media content (Cartwright, Liu, & Raddats, 2021; Iankova, Davies, Archer-Brown, Marder, & Yau, 2019; Terho et al., 2022).

The lead scoring model’s logic of the customer’s social media consumption being a trigger for sales force engagement can be interpreted through advertisement processing behavior, which focuses on the links between attitudes and behaviors that emerge through cognitive and affective processes (Kristofferson & Dunn, 2023; Shimp, 1981). Placed in the context of DCM, high content relevancy should lead to higher customer engagement with the content, which further results in positive behavioral outcomes through the emergence of positive customer attitudes towards both the content and the associated brand. We thus hypothesize as follows:

**H2.** The higher the level of engagement with educational content (H2a), product-related content (H2b), and cause-related content (H2c), the higher the level of customer engagement with the selling firm.

and:

**H3.** The effect of the perceived journey-stage fit of content exposure on customer engagement with the selling firm is mediated through content engagement.

At the same time, it is to be expected that the above-mentioned dynamics will be affected by customer-specific contingencies. B2B buyers who use social media frequently have been found to display greater confidence in and comfort with their decisions (Schaub, 2014) due to the information benefits that accrue from the consumption of social media in a professional setting (Schmidt, Lelchook, & Martin, 2016). However, experience with social media (including private usage) and the frequency of use (Dwivedi, Ismagilova, Rana, & Raman, 2021; Guesalaga, 2016; Keinänen & Kuivalainen, 2015) both influence how customers derive information benefits from the use of social media. We thus expect that buyers who regularly use social media for finding information about brands and products have stronger preferences as to which types of social media content fit a given situation. If the formed preference matches the displayed content, engagement with the content should be higher. We thus hypothesize as follows:

**H4.** The buyer’s social media usage moderates the positive impact of the perceived journey fit of content exposure on content engagement so that the impact of the customer-journey fit of content exposure is stronger for those buyers with high social media usage than it is for those with lower social media usage.

According to Gustafson, Pomirleanu, Mariadoss, and Johnson (2021), consumption of social media content empowers B2B buying unit members to identify needs and solutions accurately through the simultaneous provision of multiple information cues. If the nature of the buying situation requires input from more senior-level staff, they may engage with seller-generated content to gather information that guides their decision-making. However, reaching out to salespersons still prevalently falls within the responsibility of buying-center positions staffed by personnel occupying lower hierarchical positions (Diba, Vella, & Abratt, 2019). We thus hypothesize as follows:

**H5.** The relationship between content engagement and firm engagement is moderated by the buyer’s organizational position so that a higher position decreases the effect of content engagement on firm engagement.

The research model to be tested is presented in Fig. 1. The proposed model does not seek to test what is engaging content in B2B in a general sense. Instead, we expose customers to a range of content types (educational, product-related, and cause-related content) for the purpose of testing the effects of the perceived journey-stage fit of the content exposure on customer engagement with the content and the selling firm.

Consistent with the conceptualization of Lemon and Verhoef (2016), the customer journey is divided into three stages: the pre-purchase, purchase, and post-purchase phase. In the pre-purchase phase, the needs of the customer are defined. In the purchase phase, the customer engages in behavior such as making a choice, ordering, and paying. In the post-purchase phase, the customer interacts with the brand and its environment following the purchase. Consistent with the U&G framework (Aitken et al., 2008), we assume that the type of content that is appreciated by customers in different stages of the customer journey depends on the customer in question, whereby it is important to examine the perceived customer journey-stage fit of content exposure and its effects on engagement.

![Fig. 1. The research model.](image-url)
sales process suit the designed scenarios; and because we were looking for a firm that operates globally but is relatively unknown in order to reduce the biases that existing brand attitudes might cause.

Within this scenario, three short vignettes were used to explain the stages of the customer journey (pre-purchase, purchase, and post-purchase stages) to the participants. We created mock-up versions of Vainu’s existing social media content that represented the three content types: educational, product-related, and cause-related content (Appendix 2).

Following the scheme shown in Table 1, the three social media post types were systematically assigned to the three vignettes that describe the different stages of the customer journey, resulting in six experimental conditions. The respondents were allocated randomly to one of six experimental conditions, which presented three different social media post types (educational, product-related, and cause-related posts) in permuted sequences (see Table 1).

3.2. Measures

The survey contained two dependent variables: content engagement and firm engagement. In terms of content engagement, much of the extant digital content marketing research applies content analysis as a methodological approach. Thus, social media content engagement is typically measured through reactions to the post (e.g., people like, love, or celebrate a post), clicks, comments, and shares, with combined counts of such metrics being used to form the content engagement variable (Cortez et al., 2023; Vieira, de Almeida, Agnihotri, & Arunachalam, 2019). Rather than asking the respondents an exhaustive set of “reaction” questions, we asked them to indicate their likelihood of “liking” or “sharing” the post. We additionally asked: “How likely are you to act upon this post?” and “How likely are you to consider the displayed post as relevant?” Firm engagement was measured with one item: “If you were contacted by a sales representative from Vainu, how likely would you be to agree to a sales meeting?” All items were measured on a 1-7 rating scale with a slider function, allowing one to select between 1 = extremely unlikely and 7 = extremely likely with one decimal accuracy.

The independent variable was operationalized as the perceived fit of the presented and preferred content type for each customer-journey stage. Prior to conducting the experiment, we had no way of knowing the preferences of the respondents. However, following the experiment, the respondents were requested to indicate the customer-journey stage (the pre-purchase, purchase, or post-purchase stage) that each of the presented content types fit the best (E = educational content, P = product-related content, and C = cause-related content). We then created a dichotomous scale (0 = no fit, 1 = fit) depending on whether the respondents were exposed to each content type at their preferred journey stage or not (Fig. 2). This then allowed us to examine the effect of the perceived journey-stage fit of content exposure on content and firm engagement.

Potential moderating variables included social media usage and job position. The respondents’ social media usage was measured by the extent to which the respondent used social media to find information related to brands and products (1 = strongly disagree, 7 = strongly agree).

Job position was measured by asking the respondents to indicate their hierarchical position in the organization, which was recorded as 0 = first-level management or lower and 1 = middle-management or top-level management. Furthermore, analysis results were controlled with two covariates: brand familiarity and the respondents’ extent of involvement in the purchase processes (= The number of roles (advising, influencing, deciding, executing, no role) assumed during procurement processes). To check whether the experimental manipulation worked as intended, the respondents had to assess each presented content item as either “educational,” “product related,” or “cause related” on a three-item scale.

3.3. Data collection and sample

A pretest was conducted (126 usable responses) before the main data collection in order to test the manipulations, appropriateness of the experimental conditions, and instructions. The respondents for the pretest were recruited from MTurk. Following minor changes, we proceeded with the collection of the main data. The data for the main study were collected using the B2B online panel services of Qualtrics. The dataset consists of 444 usable responses. The respondents were recruited in the US and received compensation for their participation. All the participants had to meet the following screening criteria: each must be at expert or manager level and work in purchasing, sales, marketing, general management, or IT; each must work for a firm with 10 or more employees; each must work in a for-profit company; and each must have professional experience of at least two years. Additionally, we requested a sample that is as representative as possible in terms of firm size.

Since participants’ attention to the instructions was critical for this study, they had to pass an attention check. Based on the principle of an instructional manipulation check (Oppenheimer, Meyvis, & Davidenko, 2009), in the instruction text the respondents were directed to click on a university logo instead of the continue button; if they failed to do this, they were screened out. In total, 477 persons completed the survey.
However, 33 respondents were removed due to missing answers, resulting in a final sample of 444 (n = 444).

The participants had an average work experience of 10 years. Twenty-six percent belonged to the top-level management (CxO, president), 52% to the mid-level management (e.g., department or division manager), and 19% were first-level managers (e.g., team leaders). Three percent of the participants had no immediate subordinates. In terms of buying-center roles, 31% of the respondents give advice during the purchasing processes, 45% influence, 54% decide, and 42% execute (multiple answers were possible). Seven percent were not involved in purchasing processes.

3.4. Data analysis

The data was analyzed using SPSS version 28 and the PROCESS macro plugin for SPSS by Hayes (2018).

4. Results

4.1. Scale reliabilities, manipulation and plausibility checks

The multi-item scales for the measures of engagement for the respective content types show consistently high Cronbach’s alpha values (>0.9, see Appendix 3). We therefore interpret the scales as sufficient in terms of construct reliability, so that the scales could be used as intended without having to remove items.

Since the correct identification of the content types is central to the study, we examined the experimental treatments using manipulation checks. The educational post was correctly assessed as educational in 70.3% of the cases, while 22.5% considered it as a product-related post and 7.2% as a cause-related post. The product-related post was similarly correctly assessed as product related in most of the cases (69.4%) and significantly fewer respondents considered it to be an educational post (18%) or a cause-related post (12.6%). The cause-related post was accurately assessed as cause related in 80.2% of the cases, while 11.7% considered it an educational post and 8.1% a product-related post. Chi-square tests confirmed that responses to the educational post were significantly different compared with product-related posts ($\chi^2 = 336.4, p < .001$) and cause-related posts ($\chi^2 = 221.2, p < .001$), and responses to the product-related post differed from the responses to the cause-related post ($\chi^2 = 282.8, p < .001$). In summary, the experimental manipulation worked as intended.

The respondents were also asked to assess the plausibility of the situations they encountered in the survey (“To what extent do the aforementioned scenarios reflect actual decision-making situations?”). The average rating of 5.6 on a 1–7 scale can be interpreted as an indication of high transferability to real-life situations, which strengthens the external validity of the study.

4.2. Perceived fit of content exposure

As previously described, the respondents were randomly allocated to one of six experimental conditions, which presented three different types of social media post (educational, product-related, and cause-related posts) in permuted sequences. We found no differences between the studied groups in terms of engagement.

The respondents were then asked to indicate which stage of the purchase journey each of the presented contents fit the best. As expected, the respondents’ perceptions varied significantly (see Table 2).

4.3. Hypotheses testing

The results of testing the effect of the perceived journey-stage fit of each content type’s exposure on content engagement show that product-related content ($\beta = 0.095, p < .05$) and cause-related content ($\beta = 0.111, p < .05$) had a significant positive effect (supporting $H_{1a}$ and $H_{1c}$) while no such effect was detected on educational content ($\beta = 0.05, p > .05$; so $H_{1b}$ is rejected, see Table 4).

The respondents’ engagement with the three types of content was positively associated with their willingness to set a meeting with the company’s sales representative (i.e., firm engagement). The effect of content engagement on firm engagement differed considerably between the content types. The engagement with product-related content had the strongest effect on firm engagement ($\beta = 0.421, p < .001$), followed by educational content ($\beta = 0.241, p < .001$), while cause-related content was the least effective ($\beta = 0.110, p < .05$). The results thus support hypotheses $H_{2a}$, $H_{2b}$, and $H_{2c}$.

Further regression analyses show that the perceived customer journey-stage fit of content exposure has an overall significant positive total effect on firm engagement ($\beta = 0.861, p < .001$). Furthermore, this effect is fully mediated through content engagement as the indirect effect is significant ($\beta = 0.600, p < .001$) while the direct effect is non-significant ($\beta = -0.005, p > .05$; so $H_3$ is supported).

As hypothesized in $H_4$, a positive interaction effect of the perceived journey-stage fit of content exposure and social media use on content engagement was found ($\beta = 0.330, p < .05$), suggesting that the more intensively individuals use social media for information retrieval about

<table>
<thead>
<tr>
<th>Table 2</th>
<th>The preferred customer journey stage fit of each content type, n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Educational content</td>
</tr>
<tr>
<td>Pre-purchase stage</td>
<td>201 (45.3)</td>
</tr>
<tr>
<td>Purchase stage</td>
<td>134 (30.2)</td>
</tr>
<tr>
<td>Post-purchase stage</td>
<td>83 (18.7)</td>
</tr>
<tr>
<td>No clear fit to any stage</td>
<td>26 (5.9)</td>
</tr>
</tbody>
</table>

indicating that it fitted with the purchase stage, 25.7% with the post-purchase stage, and 24.1% with the pre-purchase phase. Cause-related content was also most often considered to have no clear fit to any stage (21.8%). These results indicate that there are no clear single best solutions as to which content should be presented at which stage of the buying process.

In preparation for hypothesis testing, the individual preferences described in Table 2 were included in the analyses by creating a dichotomous variable of the perceived journey-stage fit of content exposure for each content type. This was done by matching whether respondents were exposed to each content type in the preferred purchase process stage ($0 = \text{no fit}, 1 = \text{fit}$). Out of all the cases (see Table 3), educational content was most often seen in its preferred journey stage (38.5%), while 31.3% of respondents saw product-related content in the preferred stage. Cause-related content was seen the least often in the preferred purchase process stage (22.1%), reflecting the respondents’ uncertainty about the best stage for cause-related content.

<table>
<thead>
<tr>
<th>Table 3</th>
<th>The perceived journey-stage fit of the displayed content.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Content type, n (%)</td>
</tr>
<tr>
<td>The journey-stage fit of the content</td>
<td>Educational content</td>
</tr>
<tr>
<td>No fit</td>
<td>273 (61.5)</td>
</tr>
<tr>
<td>Fit</td>
<td>171 (38.5)</td>
</tr>
</tbody>
</table>
products and brands, the stronger the effect of the journey-stage fit of content exposure on content engagement. Further, the respondent’s organizational position was also found to moderate the content engagement and firm engagement relationship (supporting H4). The moderating effect was negative ($\beta = -0.149, p < 0.05$), suggesting that content engagement among the respondents in lower organizational positions led to a higher willingness to engage with the advertiser’s sales representative compared with the willingness found among those in higher positions.

Since the actual existing company (Vainu) served as an example for social media posts, it could not be ruled out that familiarity with the brand led to higher engagement. In fact, brand familiarity leads to higher firm engagement ($\beta = 0.016, p < 0.05$). As persons involved in purchasing processes may be expected to deal with offers from supplying companies, a higher level of involvement in purchasing processes should also lead to a generally higher level of engagement. Indeed, greater involvement in buying processes leads to both higher content engagement ($\beta = 0.235, p < 0.001$) and firm engagement ($\beta = 0.132, p < 0.001$).

5. Discussion and conclusions

With this study, we participate in the ongoing discussion on DCM, which has emerged as a key marketing communications paradigm to explain how firms can engage customers by sharing content matched to their timely needs (Hollebeek & Macky, 2019; Holliman & Rowley, 2014; Jarvinen & Taalminen, 2016; Wall & Spinuzzi, 2018). The results of this study suggest that there are no universally correct sequences for presenting content to customers at different stages of the purchase journey in order to systematically increase engagement (cf. Terho et al., 2022). Instead, the findings suggest that the types of content customers prefer to see in different journey stages varies widely between individuals.

If the seller has no way of knowing individual customer preferences, it appears that, on average, product-related content is most often considered to fit the purchase stage (47.7%), while educational content is most often considered to best fit the pre-purchase stage (45.3%). A preference for cause-related content was relatively equally distributed across the three journey stages. This type of content does not directly help to frame the customer’s problem, nor does it provide information about the seller’s offering, but it has been suggested as an important means for customers to assess their willingness to enter and maintain relationships with suppliers (Han & Lee, 2021). We interpret this to mean that cause-related content serves the function of a branding tool that has no generic fit to any journey stage. It may create positive brand attitudes for potential customers and strengthen existing brand relationships.

Interestingly, educational content was the only content type for which the perceived customer journey-stage fit of content exposure did not affect engagement. This type of content is geared towards enabling customers to frame the business problems that they encounter (Terho et al., 2022) and it enables customers to understand industry trends and it enables customers to understand industry trends and it motivates buyers to frame the customer’s problem, but it has been suggested as an important means for customers to assess their willingness to enter and maintain relationships with suppliers (Talenti et al., 2022). We interpret this to mean that cause-related content serves the function of a branding tool that has no generic fit to any journey stage. It may create positive brand attitudes for potential customers and strengthen existing brand relationships.

5.1. Theoretical contributions

The study makes three important contributions to the literature. First, to our knowledge, this is the first study to empirically demonstrate that providing timely content drives engagement in business markets. This is an important addition to the extant quantitatively oriented B2B
DCM research that has used content analysis techniques to elucidate the drivers (e.g., message features, styles, goals, and appeals) behind generally engaging B2B content (e.g., Cortez et al., 2023; Deng et al., 2021; Juntunen et al., 2021; Meire et al., 2022). The findings from our study suggest that rather than merely attempting to understand what is engaging content, more focus should be placed on understanding when to share it. These findings thus underline the importance of generating insights on the individual-level needs and the behavior of different members in the customer’s decision-making unit with the help of novel technologies, such as machine learning. This then forms the basis for designing and delivering the right content types to the right individuals at the right stage of the purchase journey through behavioral targeting (Jarvinen & Taiminen, 2016; Mero et al., 2022; Terho et al., 2022; Upreti et al., 2021; Zhang & Li, 2019).

Second, the demonstrated effect of the perceived customer journey-stage fit of content exposure on the customer’s willingness to engage with the selling firm highlights the importance of DCM as a driver of sales performance. Although the DCM literature strongly posits brand or firm engagement as the primary goal of DCM (Hollebeek & Macky, 2019; Holliman & Rowlley, 2014; Jarvinen & Taiminen, 2016; Peterson, Malshe, Friend, & Dover, 2021; Terho et al., 2022; Vieira et al., 2019), the majority of extant research focuses on an analysis of publicly available content engagement metrics, such as likes, comments, shares/retweets on social media platforms (see, e.g., Deng et al., 2021; McShane et al., 2019; Meire et al., 2022) without demonstrating any link to firm-level performance outcomes. In this respect, this is the first study to demonstrate the positive effect of DCM on firm engagement in the form of a customer’s willingness to agree to a sales meeting. The finding strengthens the study by Wang et al. (2019) that demonstrated the positive effect of DCM (compared with offline marketing) on lead acquisition.

Third, our findings point to the importance of understanding the role of moderating variables in understanding the effective application of DCM in B2B. Specifically, the findings of this study point to the impact of two moderators: the customer’s social media use and position in the organization. Customers have different degrees of experience with social media (Dwivedi et al., 2021; Guesalaga, 2016; Keinänen & Kuivalainen, 2015). Also, the role of social media in the knowledge-convergence process in the buying unit varies and is dependent on the buying situation, on the number of members, and on their involvement in the knowledge-conversion process (Gustafson et al., 2021). These moderating variables influence customer engagement with seller-related content and the outcomes of this engagement.

5.2. Managerial implications

We offer several critical insights for managers interested in developing their DCM practices. Firstly, this study finds that investments into DCM can pay off through positively impacting the early stages of the sales process. More specifically, we show that the customer’s content engagement leads to a higher customer willingness to initiate face-to-face dialogue with the seller. Further, in generating engagement, timeliness matters. More specifically, if the seller is able to share content that meets the customer’s use needs at different journey stages, this enhances the customer’s willingness to engage with the firm and the content that it generates. However, timeliness is not easy to achieve because customers have surprisingly varied opinions as to what is considered timely content in the different stages of the customer journey.

To develop an effective digital content distribution strategy, we recommend that managers consider the resources and competences that they have at their disposal, which should then guide the selection of an appropriate DCM approach (see Fig. 3).

The simplest approach to implement is the baseline DCM approach, which implies creating and sharing content that is generally engaging in B2B markets. Such contents can be educational, product-related, and cause-related. If the level of customer knowledge, content production resources, and technological competence are skim, we recommend managers to select this approach since the implementation does not require intelligence of customer needs at different journey stages or significant resources to create and distribute a broad content portfolio to address these needs. At the same time, the baseline DCM approach is unlikely to be as effective in generating engagement as more targeted approaches.

To improve customer content engagement, the timely DCM approach addresses an individual customer’s situational content needs. However, timely DCM requires investment into sophisticated technologies and capabilities to allow a) individual-level monitoring of content engagement and b) fine-grained behavioral targeting of firm-generated content. The fine-grained behavioral targeting of firm-generated content is needed to improve the focal firm’s ability to target content based on the customer’s idiosyncratic use needs at different journey stages. Such features exist in conventional rule-based automation technologies (see e.

---

**Fig. 3. Selection of appropriate digital content marketing approach.**

- **Timely DCM (Individuals as audience)**: Create and share content that meets customers’ individual-level use needs at different journey stages (focus of this study).
- **Sequential DCM (Generic buyer personas as audience)**: Create and share content to meet diverse buyer persona needs sequentially at different customer journey stages (see e.g., Terho et al., 2022). Emphasize educational content in the pre-purchase stage and product-related content in the purchase stage. Use cause-related content along the whole customer journey as a brand-building tool.
- **Baseline DCM (Generic audience)**: Create and share content that is generally engaging in B2B markets (see e.g., Deng et al., 2021; McShane et al., 2019; Meire et al., 2022).
Although this study finds timely content delivery to be effective in boosting content engagement, it may not always be the optimal approach, if the required investments in journey intelligence, content production, and technologies exceed the expected benefits. Although recent advances in language models (i.e., generative artificial intelligence) may mitigate the costs of content creation (see e.g., Kshetri, Dwivedi, Davenport, & Panteli, 2023; Wahid, Mero, & Ritala, 2023), the investments in advanced tracking technologies must balance between cost and expected outcomes.

As a middle option, the seller can also select a sequential DCM approach to address diverse buyer personas at different journey stages (see e.g. Terho et al., 2022). This implies creating a versatile portfolio of content types that sequentially address the varied customer needs at different journey stages based on customer journey intelligence. Our findings suggest educational content to fit best in the pre-purchase stage and product-related content in the purchase stage. Cause-related content appears to function as a generic brand-building tool that has no clear fit for any stage. It is nevertheless as engaging as the other studied content types (educational and product-related content) and should be incorporated into the content portfolio. Although managers can distribute content and track content engagement in social media to some extent manually, we recommend adopting marketing technologies (e.g., marketing automation) to nurture leads through content automation sequences and to track customer engagement systematically to trigger automated lead qualification and handover process through the lead scoring model (see e.g. Terho et al., 2022; Terho et al., 2023).

5.3. Limitations and further research avenues

This study has some limitations due to the empirical design. First, to keep the number of experimental conditions manageable, each content type appeared only once during all sales phases. Theoretically, although practically unlikely, a company could also rely exclusively on one content type. However, this does not contradict the study’s main finding that the perceived customer-journey fit of content exposure is a key determinant of engagement. More specifically, if the customer is exposed to firm-generated content deemed as relevant in a particular journey stage, this then leads to higher customer engagement with the selling firm and the content that it generates.

Second, the study is based on a scenario experiment. As a result, actual engagement is not measured, only the behavioral intention to do so is measured. A field experiment could provide further insights and improve external validity. Third, customer engagement is a multifaceted and complex construct that is used with various connotations in research and practice (Pansari & Kumar, 2017). The engagement intentions measured here only represent a small fraction of a large variety of customer actions that can be defined as non-monetary contributions to the seller. Future studies should therefore also consider other engagement dimensions, as well as monetary measures, such as customer value.

Fourth, to improve the effectiveness of DCM campaigns, future research should examine the determinants that influence customer preferences for different types of content in different journey stages. These are likely influenced by individual-level factors, such as personality, motivation, attention, and involvement. Also, cultural- and industry-level factors can play a role. Once we better understand the driving factors, we have a better basis for understanding the data requirements for optimizing DCM campaigns. Given the increasingly restrictive data protection laws, it can be that firms will need to leverage new innovative methods that allow simultaneous testing and optimizing of the effectiveness of DCM campaigns. These could involve, for instance, multi-armed bandit approaches (Schwartz, Bradlow, & Fader, 2017), which use reinforcement learning algorithms to dynamically allocate traffic to variations that perform well.

Finally, to avoid the potential confounding effects of translation, we chose to only select respondents from English-speaking countries and focused specifically on US respondents, which can be considered a limitation. It was important to recruit respondents who met the rather stringent qualification criteria, which meant that we had to work with a large panel. Also, since many of the world’s largest social media companies are based in the US, we expected respondents from the US to be reasonably experienced with using social media. However, the incorporation of respondents from other countries would have increased the generalizability of the study’s findings.

CRediT authorship contribution statement

Anna Salonen: Conceptualization, Visualization, Writing – original draft, Writing – review & editing, Methodology. Joel Mero: Conceptualization, Visualization, Writing – original draft, Writing – review & editing. Juha Munnukka: Data curation, Formal analysis, Methodology, Writing – original draft, Writing – review & editing. Marcus Zimmer: Formal analysis, Methodology, Writing – original draft, Writing – review & editing. Heikki Karjaluento: Funding acquisition, Resources.

Data availability

Data will be made available on request.

Appendix 1. Experiment stimuli: - The customer journey scenarios

<table>
<thead>
<tr>
<th>The pre-purchase scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imagine that you work in a B2B company that spends too much time and effort on customers that are not likely to purchase your products. You realize that allocating marketing and sales efforts to the best customers would increase productivity. Yet, you are currently unsure about what is the best way to build the ideal customer accounts. While scrolling down your LinkedIn newsfeed, you encounter the following post from a software company called Vainu:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The purchase scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some time has passed, and you have now been able to create ideal customer accounts to ensure the better allocation of sales and marketing efforts. Now, you are looking for a tool that enables matching ideal customer accounts with up-to-date customer information in the customer relationship management system. While scrolling down your LinkedIn newsfeed, you encounter the following post from the software company called Vainu:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The post-purchase scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some more time has passed. You have purchased a Workflow Triggers tool from Vainu and it has been in use for some time. While scrolling down your LinkedIn newsfeed, you encounter the following post from Vainu:</td>
</tr>
</tbody>
</table>
Appendix 2. Experiment stimuli: Social media posts

Educational content

We’re hosting an educational event next week about Account-Based Demand Generation. Join us and learn from the industry experts how to build ideal customer accounts and allocate your marketing and sales efforts more productively.

Webinar: How to win Account-Based Demand Gen in 2022
Join this educational event and learn how to allocate marketing and sales efforts to ideal customer accounts.

LEARN MORE: HTTPS://LNKD.IN/DNIKTPJG
Today we're releasing a new product feature called Workflow Triggers, the solution for updating your target customer accounts in real-time. This new product feature is compatible with all major CRM systems, such as Salesforce, HubSpot and Microsoft Dynamics.

Workflow Triggers
Automate actions in your CRM based on relevant company changes

New product feature released!

Start your 14-day free trial!
Be the first to sign up and see how Workflow Triggers work in practice!

START YOUR FREE TRIAL HERE: HTTPS://BIT.LY/3GYPOSA
Appendix 3. Measures and items, construct reliabilities, and intercorrelations

Measures and items

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>Std.</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement with the educational post [EduEng]</td>
<td></td>
<td></td>
<td>0.94</td>
</tr>
<tr>
<td>How likely are you to “like” this post?</td>
<td>5.21</td>
<td>1.67</td>
<td></td>
</tr>
<tr>
<td>How likely are you to share this post?</td>
<td>4.91</td>
<td>1.97</td>
<td></td>
</tr>
<tr>
<td>How likely are you to act upon this post?</td>
<td>5.23</td>
<td>1.61</td>
<td></td>
</tr>
<tr>
<td>How likely are you to consider the displayed post relevant?</td>
<td>5.53</td>
<td>1.51</td>
<td></td>
</tr>
</tbody>
</table>

(continued on next page)
(continued)

**Descriptive statistics and intercorrelations**

<table>
<thead>
<tr>
<th>Measures</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>ContSeq (manipulated)</td>
<td>3.54</td>
<td>1.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EngEdu</td>
<td>5.22</td>
<td>1.51</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EngProd</td>
<td>5.34</td>
<td>1.44</td>
<td>0.01</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EngCause</td>
<td>5.01</td>
<td>1.75</td>
<td>−0.04</td>
<td>0.71</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FitEdu</td>
<td>0.39</td>
<td>0.49</td>
<td>−0.20</td>
<td>0.06</td>
<td>0.06</td>
<td>0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FitProd</td>
<td>0.31</td>
<td>0.46</td>
<td>−0.17</td>
<td>0.10</td>
<td>0.10</td>
<td>0.14</td>
<td>−0.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FitCause</td>
<td>0.22</td>
<td>0.42</td>
<td>0.19</td>
<td>0.08</td>
<td>0.08</td>
<td>0.11</td>
<td>−0.40</td>
<td>−0.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FirmEng</td>
<td>5.54</td>
<td>1.45</td>
<td>0.04</td>
<td>0.75</td>
<td>0.77</td>
<td>0.64</td>
<td>0.03</td>
<td>0.10</td>
<td>0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SomeUse</td>
<td>5.68</td>
<td>1.33</td>
<td>−0.01</td>
<td>0.58</td>
<td>0.55</td>
<td>0.46</td>
<td>−0.05</td>
<td>0.08</td>
<td>0.02</td>
<td>0.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position</td>
<td>0.78</td>
<td>0.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.01</td>
<td>0.12</td>
</tr>
<tr>
<td>PurchInv</td>
<td>1.71</td>
<td>1.12</td>
<td>0.09</td>
<td>0.23</td>
<td>0.23</td>
<td>0.10</td>
<td>−0.03</td>
<td>−0.10</td>
<td>0.09</td>
<td>0.25</td>
<td>0.10</td>
<td>0.30</td>
<td>0.30</td>
</tr>
<tr>
<td>BrandFam</td>
<td>3.82</td>
<td>2.18</td>
<td>0.01</td>
<td>0.38</td>
<td>0.36</td>
<td>0.40</td>
<td>0.00</td>
<td>0.07</td>
<td>0.10</td>
<td>0.35</td>
<td>0.21</td>
<td>0.19</td>
<td>0.03</td>
</tr>
</tbody>
</table>

**Appendix 4. A mean value comparison (ANOVA) of content engagement between experiment conditions**

<table>
<thead>
<tr>
<th>Content type</th>
<th>Experiment condition</th>
<th>n</th>
<th>Mean</th>
<th>Std.</th>
<th>F-value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>EngEdu</td>
<td>1. Educational—Product-related—Cause-related</td>
<td>68</td>
<td>4.93</td>
<td>1.64</td>
<td>1.29</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>2. Educational—Cause-related—Product-related</td>
<td>74</td>
<td>5.22</td>
<td>1.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Product-related—Educational—Cause-related</td>
<td>82</td>
<td>5.47</td>
<td>1.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Product-related—Cause-related—Educational</td>
<td>65</td>
<td>5.21</td>
<td>1.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Cause-related—Educational—Product-related</td>
<td>78</td>
<td>5.06</td>
<td>1.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Cause-related—Product-related—Educational</td>
<td>77</td>
<td>5.38</td>
<td>1.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Educational—Product-related—Cause-related</td>
<td>68</td>
<td>5.18</td>
<td>1.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Educational—Cause-related—Product-related</td>
<td>74</td>
<td>5.40</td>
<td>1.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EngProd</td>
<td>3. Product-related—Educational—Cause-related</td>
<td>82</td>
<td>5.46</td>
<td>1.37</td>
<td>0.31</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>4. Product-related—Cause-related—Educational</td>
<td>65</td>
<td>5.28</td>
<td>1.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Cause-related—Educational—Product-related</td>
<td>78</td>
<td>5.33</td>
<td>1.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Cause-related—Product-related—Educational</td>
<td>77</td>
<td>5.34</td>
<td>1.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Educational—Product-related—Cause-related</td>
<td>68</td>
<td>4.97</td>
<td>1.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Educational—Cause-related—Product-related</td>
<td>74</td>
<td>5.02</td>
<td>1.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Product-related—Educational—Cause-related</td>
<td>82</td>
<td>5.29</td>
<td>1.76</td>
<td>0.79</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>4. Product-related—Cause-related—Educational</td>
<td>65</td>
<td>5.05</td>
<td>1.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Cause-related—Educational—Product-related</td>
<td>78</td>
<td>4.75</td>
<td>1.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Cause-related—Product-related—Educational</td>
<td>77</td>
<td>4.96</td>
<td>1.67</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EngEdu: engagement with an educational post; EngProd: engagement with a product-related post; EngCause: engagement with a cause-related post.


