Using YouTube to Connect and Educate Individuals in the Chemical Industry

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To cite this article:
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In the chemical industry, a new generation of decision-makers is emerging in the next 5 to 10 years with a higher affinity for the use of videos to find information and to connect with other individuals. Through the digital transformation, an “on-demand” culture has become usual. As individuals want to access information at any time, B2B companies need to transform to video-based infrastructures enabling them to build effective relationships through connecting their employees with the new decision-makers of the industry. The speciality chemicals business is characterized by a high level of innovations which is seen as an excellent source to create video content aiming to connect individuals and to change social communication patterns. The current academic literature indicates the advantages of using YouTube in B2B, but a specific framework describing how to embed YouTube in the customer journey to improve B2B social communication and to achieve better social connections between B2B individuals is missing. Using an adopted content analysis, this paper developed a framework for YouTube-based activities combining the four major elements, Content, Touchpoint, Usage and Stimulus, in an interrelated setup.

Introduction

Digitalisation is the 21st century challenge impacting almost every business. The COVID-19 crisis has accelerated the adoption of social media by companies in their day-to-day business (Ossiannilsson, 2020). In particular, digital touchpoints became a new focus in business-to-business (B2B) relations allowing organizations to stay connected while travel restrictions were imposed around the world (Remko, 2020). Information management is a well-discussed topic in the academic literature and digitalization has changed communications between individuals.

Business-to-consumer (B2C) companies have been using social media like YouTube to communicate with their community for years (Peters et al., 2013; Zhang & Du, 2020). B2B companies also have the potential to lead the communication between their employees and their customers (Iankova et al., 2019). In this context, it is important to recognize that a generational change among the decision-makers who control budgets and purchase investments in the German chemical industry is imminent in the next 5 to 10 years. The new generation of managers, leaders and business owners has different expectations for finding information online (Vogel
Communications Group, 2020). This new generation is expected to have a higher affinity for the use of videos to find information and to connect with other individuals. Videos are an accepted medium to absorb information, be taught new concepts and are experienced as easy to use. At the same time, the digital transformation has created an “on-demand” culture in many areas, including the business-to-business segment. The new generation of managers, leaders and business owners has grown up in an environment where information is constantly available. The upcoming changes within the population of decision-makers and the established “on-demand” culture requires B2B companies to consider transforming into a video-based communication infrastructure. This will allow them to connect their employees with the new generation of decision-makers effectively (Dickinson, 2021; von Rüden et al., 2020).

The speciality chemicals business is characterized by a high level of innovation. For the German market, an increase of 9.9% for investments and 7.0% for research and development is anticipated. Especially the speciality chemicals business is expected to grow by 2.1% per year until 2030 (Verband der Chemischen Industrie e.V., 2016). This circumstance of investments and product expansions through research and development offers an outstanding opportunity to create personalized content for knowledge transfer with the purpose to connect individuals and to change communication patterns between value chain partners (Chaffey, 2019). Social expectations and behaviors in communication may be about to change when the new generation of managers, leaders and business owners become decision-makers. It is therefore necessary to develop a framework supporting organizations to establish a YouTube strategic and tactical setup.

**Digital Marketing**

The term “digital marketing” appeared for the first time in the 1990s. This form of marketing uses digital media, data and technology to approach customers and to present the goods and services of a company. With the digital transformation, the digital touchpoints of customers increased, also in the B2B segment. This influenced decisions in the entire marketing process towards the way customers are approached and goods and services are presented (Chaffey, 2019). These digital touchpoints are part of a customer journey. In the simplest version, a customer journey consists of the pre-purchase, the purchase, and the post-purchase phase. The pre-purchase phase includes all the transactions that may lead to a purchase by the customer. This might be the first contact, the customer product research or product explanations by the seller. The purchase phase includes all the transactions that are part of the actual sales process such as paying, buying or shipment. In the last post-purchase phase, transactions such as claims, returns or after-sales services are included (Kreutzer, 2021; Westermann et al., 2018). The customers’ touchpoints can be offline (traditionally) or online. The touchpoints are the moments in the customer journey when the buyer interacts directly or indirectly with the seller. The form of interaction that occurs at these touchpoints is impacted by the digital transformation (Kreutzer, 2021).

Along with the impact on the touchpoints between buyer and seller, the digital transformation and the move to digital marketing also impact the communication mode. The classic one-dimensional push marketing has developed into multi-dimensional pull marketing. In the classical push marketing, general or broad information is provided to customers as a mass medium. This kind of communication is typically a monologue-based
communication with a lot of control, defined times of availability and comes with a lot of detail. Push communication is often slow in the transfer of information. In pull marketing, the content is individualized to be available to different customers. It is a dialogue and discussion-oriented communication with less control. There are no defined times of availability as customers expect constant availability. It is a very fast form of communication but often with less detail (Babka, 2016; von Rüden et al., 2020). In a pull communication approach, videos have become a customer appreciated element. Information can be accessed at any time, is rapid and constantly available (Kreutzer, 2021). Videos are primarily assigned to the “pre-purchase” phase within the customer journey to support the customer in the decision-making process but have the potential to also be used for other touchpoints throughout the journey (Chaffey, 2019; von Rüden et al., 2020). Learning from the customer journey management of B2C companies, supportive-based emotional videos and an appropriate video platform seem to be required for the B2B environment to benefit from videos in the customer relationship (Zhang & Du, 2020).

The YouTube Video Platform

The YouTube video platform is considered as the second largest search engine in most countries in terms of search queries (Chaffey, 2019; SimilarWeb, 2021). It demonstrates a strong relevance to drive communication and provides information and builds social relations. A study evaluated the importance of an early channel creation in YouTube to achieve a large viewership. It was found that on average 85% of all YouTube views go to just 3% of YouTube channels. The conclusion of the study is that older channels have a significant higher probability of achieving a larger viewership and therefore benefit more from operating a YouTube channel. However, there seems to be an opportunity for new channels to become successful, which allows newcomers to enter the platform. This requires specialized categories and target viewer group specific videos (Bärtl, 2018).

In addition to being early in setting up a YouTube channel to garner viewers, research studies found that an important feature for viewers is to make videos searchable. This feature is becoming very popular, especially in providing training materials to allow easy and fast finding of relevant moments within the video (Dickinson, 2021). The importance of searchable videos is further supported through a research study which identified that this function has a positive influence on the actual success of the intended information transfer (Angrave et al., 2020). Multiple research studies support that YouTube is an efficient source to provide reliable and educational content. Szmuda et al. (2020) explored in their work the content quality of YouTube videos relating to the medical condition of hydrocephalus and found that YouTube videos may be effective in educating patients. Educational videos like “how-to” videos provided by amateurs or peers on YouTube are also a highly valued source for many viewers (Utz & Wolfers, 2020).

A close relation to the content quality is seen in viewers’ comments to videos in YouTube. Comments are an effective way to find relevant and popular videos in YouTube, which requires an interaction with the viewers (Bhuiyan et al., 2017). These viewers are part of the customer community. In a community, there are different target groups and YouTube offers an effective function to provide specific videos to each part of the community through the creation of different channels. Personalised video content, as an essential element of innovative
marketing strategies, is also seen to be demanded by the wider B2B community (Poradova, 2020).

For interaction with the community, certain criteria for videos in YouTube are required. Community interaction in YouTube means the number of views, number of likes and number of comments. The use of call-to-actions can be used in YouTube marketing to animate the target group, to get involved and to engage with the content. This can be done through questions in the description of the video, the request to provide opinions or feedback in the comment function of the video or the use of votes (Kreutzer, 2021; von Rüden et al., 2020). Research found further, for example, that “postings during non-business hours also helps to increase the number of views, likes and comments” (Munaro et al., 2021, p. 13). Other identified criteria affecting the success of a video on YouTube seem to be the video-length, language style and emotion (Munaro et al., 2021). In addition, tutorials, interviews with experts and videos with answers to recurring customer questions can generate a proactive exchange. B2B YouTube influencers may also provide an advantage, provide variety and build trust. This can promote real customer loyalty and affect the number of viewers (Altemeyer & Terstiege, 2020; Tafesse, 2020)

Research demonstrates the efficiency of YouTube videos as a source of information. Universities and students are in a similar relationship to buyers and sellers, under the condition where one party provides a service or product to the other party. The study by Almobarraz (2018) found that using YouTube videos in the classroom has a positive effect on the engagement of students. The research study further found that the students seem to be more prepared to accept the integration of YouTube videos into their courses than professors. The study recommends uploading relevant, supportive and educational videos to YouTube to proactively support the learning activities of students and thereby increase student loyalty and engagement.

Increasing engagement is also explored in the research study “Corporate YouTube practices of Eurozone companies”. It was found that companies that were more active on YouTube, uploading videos and aiming to interact with their community, achieved a larger number of viewers and stronger stakeholder engagement. The study concluded therefore that companies may miss an opportunity if existing YouTube channels are not used proactively to manage social connections (Bonsón et al., 2014). An increased engagement of stakeholders, including customers, is also identified in the work of Zhou et al. (2021). They found that YouTube is an effective medium for advertising. Furthermore, they found a positive relationship between YouTube advertising and the company’s sales and profits.

**Method**

The literature shows the advantages of using YouTube as a social communication tool to connect individuals by structurally affecting communication patterns. To the knowledge of this paper’s author, studies have not explored specific frameworks describing how YouTube can be used in the B2B customer journey to improve communication and to achieve better connections between B2B individuals.

This study presents the results from a thorough literature review process. Using adopted content analysis as a primary research approach, this paper follows the stepwise process suggested by Tranfield, Denyer and Smart
Klein (2003). Our explicit goal was to identify knowledge about the use of YouTube in B2B. Therefore, scholarly databases such as ScienceDirect, EBSCO and Emerald and academic search engines like Google Scholar were used to search for publications dealing with relevant topics. The study searched for the occurrence of the terms “YouTube in business-to-business” or “YouTube in B2B” in the title, abstract and keywords of the publications. A few publications considered YouTube as a key content element, and were also analyzed.

All relevant papers published between 2009 and summer 2021 were taken into consideration. In assessing the quality of the papers, it was analyzed whether the publication contained any relevant information on the topic of YouTube in B2B, with the focus on managerial implications and relevance. The search also included models, frameworks or concepts supporting the usage of video-based content in B2B conditions. Finally, the results are synthesized by summarizing and integrating the research findings to develop a framework for the B2B environment with the purpose to impact the social relation pattern.

The research strived to answer the question: How to embed YouTube to improve communication and achieve better connections between B2B individuals in the chemical industry?

This research question was designed to support the process of understanding which elements in a conceptualized framework are needed to successfully think about YouTube in the chemical industry. To answer this research question, it was necessary to understand the status of YouTube video knowledge in the B2B environment. This supported this research analysis to build on other study findings and to assess the relevance of the discussion. It was also necessary to understand what other conceptual frameworks exist that describe the usage of social medial tools like YouTube, Facebook or LinkedIn in B2B business. This was considered to support the research analysis in conceptualizing the usage of YouTube in the chemical industry.

Results

In total 48 publications were identified and analyzed using the terms “YouTube in business-to-business” or “YouTube in B2B” in the title, abstract, keywords or as key content element. Given the small number of identified publications, it seems that the topic of YouTube in B2B is a relatively new area in the academic literature. It is therefore no surprise that the available information in the academic literature is limited. The study’s findings show further that since 2017/2018 a slight increase in publications discussing YouTube in B2B occurs. A relatively large peak is seen in the year 2020. This increase in publications in recent years indicates that this area of investigation is of current relevance as more researchers are starting to take a detailed look at the topic (see Figure 1).

The analysis shows that most of the existing literature is focusing on the value-add YouTube could provide as a social media instrument for the B2B environment. There are many more publications available discussing social media in general for the B2B environment, but not evaluating YouTube specifically and so are not considered further in this research study in detail. Right at the beginning of the research, it turned out that content marketing is an often-discussed element. Content marketing, as an element of digital marketing, has become
increasingly important in the most recent years. Digital content can essentially be created based on the intentions of “entertaining”, “inspiring”, “training” or “convincing”. A focus on personalized content seems to be relevant in order to interact with customers and potential customers. Videos have the property of conveying a complex message effectively, being goal-oriented and individualized, and have a considerable advantage over text-based content (Chaffey, 2019). Content is a very critical element for YouTube videos. In the work of Farrell (2021), it is found that content delivery videos received more attention compared to other videos. The content presented in YouTube videos needs to be of an appropriate quality, and it is recommended in the literature that it is specific and target oriented (Bhuiyan et al., 2017; Kreutzer, 2021; Ranade et al., 2020).

![Figure 1. Number of Publications](image)

The starting point for successful digital content marketing is the community. A community offers the opportunity for collaboration, with members contributing with different strengths and interests. A community in a digitally connected environment offers, in addition to communication for the exchange of information, numerous other advantages, such as market research, product presentation, product development, support and prestige. In particular, cooperation within the community has become increasingly relevant for companies, such as those in the chemical industry (Kollmann, 2019; Verband der Chemischen Industrie e.V., 2016). For a high degree of customer loyalty, it is important to maintain an effortless customer experience in the supplier relationship within a digitally connected corporate world. A good community strategy supports the development of digital-based customer loyalty (Dickinson, 2021). This includes the consideration of YouTube video content for different stakeholders’ touchpoints along the customer journey (Kreutzer, 2021; Pandey et al., 2020; von Rüden et al., 2020).

Another important element of content creation for YouTube is seen as lying in the incentive intended to be provided for the viewer of the video. It turns out that B2B companies often tend to provide rational incentives and B2C companies often emotional incentives, in which the possible success of B2C marketing content can be seen. Through the digital transformation and the increased volume of available YouTube content and its quality, viewers tend to be entertained, taught or informed in an enjoyable way (Angrave et al., 2020; Lee et al., 2017;
Zhang & Du, 2020). In addition, research by Zhang and Du (2020) found that it is recommended in academic publications that B2B YouTube content should be based on a supportive approach for the B2B environment and not on a direct sales approach.

In addition to these factors of YouTube in B2B, this analysis shows that some academic studies are also dealing with the area of stimuli in relation to social media and video content. In the area of social media, the stimulus is understood as the motivation of customers to participate in existing communities. This participation then affects the internal state of customers as members of the community (Wang & Fesenmaier, 2003). The motivation of customers has a significant influence on the success of social media activities, including YouTube (Kamboj et al., 2018). Different content types can be categorized depending on the stimulus intended to be taken forward. The stimulus should be clearly identified before a social media content element is created and made publically available (McFarland & Ployhart, 2015; Peters et al., 2013).

A “Video Success Thinking” framework

To affect the social relations in the communication and connection of B2B individuals, a “Video Success Thinking” framework is proposed. The framework allows combining major elements expected to make YouTube a successful instrument supporting the chemical industry in the transformation into a video-based communication infrastructure. Based on this research study, the four major elements of the framework are Content, Touchpoints, Usage and Stimulus (see Figure 2).

![Figure 2. “Video Success Thinking” Framework](image)

The Content for YouTube is seen as a major element because it defines the actual information provided to the viewers. The viewers may vary depending on the job role, age or employer, while one customer organization has potentially multiple viewers. The content element supports the creation of videos, allows thinking about different YouTube channels and is seen as the ultimate element for appropriate quality. The content might be the
area to start with in creating information aimed to be made available as a video on YouTube. The creator needs to decide if this content aims to educate or to convince the customer of the chemical industry (Chaffey, 2019). The content created needs to assure an appropriate social relationship between the individual viewers (McFarland & Ployhart, 2015).

The Touchpoint of the customer journey is a major element allowing streamlining and focusing the video content for a specific target group of viewers. The same viewer might require different content depending on the current touchpoint along the customer journey. This means the content should be generated for a specific touchpoint of the viewer in the customer journey. The customer may need different information during the awareness phase compared to the actual purchase or service and post-purchase phase (Kreutzer, 2021; Westermann et al., 2018).

The actual Usage of the provided information is also considered as a major element because B2B customer relations are typically affected by an authentic purpose. Customers can be just a buyer but, in some cases, also a partner to cooperate with. Being a buyer or a partner can influence the content or touchpoint of the viewer. Depending on whether the information provided on YouTube aims to initiate cooperation or to organize the communication between B2B individuals, the actual usage of the content at the different touchpoints may change. This needs to be reflected in the process of using YouTube in the environment of the chemical industry (Babka, 2016; von Rüden et al., 2020).

The Stimulus is finally needed as a major element because the motivation and orientation of the viewers can vary, depending on their needs or intentions. The content may need to be adapted to the different motivations of different viewers. The stimulus of the content can be triggered by different factors such as a task, an emotion, an interaction or an advertisement. Depending on the stimulus, the actual content needs to be created. Studies have shown that content made for emotions requires another setup than content for tasks (Yaghtin et al., 2020).

All these major factors appear to impact each other and therefore the video to be posted on YouTube. This is seen as an absolute critical advantage of the framework to make a difference in the real world of the chemical industry. This proposed framework includes, on the one hand, the elements required to generate YouTube content for the chemical industry and, on the other hand, the interrelations between these elements become visible and therefore considerable. This framework is also seen as a useful concept supporting the chemical industry to make a difference in preparing for the upcoming change in the next generation of decision-makers.

**Discussion**

The possibility of using videos as a marketing communication element is still not strategically considered in the chemical industry. The creation of videos for YouTube as an accepted distribution channel can provide a tactical advantage because of the upcoming generational change among decision-makers controlling the budgets and purchase investments in the German chemical industry that is imminent in the next 5 to 10 years (Vogel Communications Group, 2020). This upcoming change may require companies in the chemical industry to
transform to a video-based infrastructure allowing them to connect their employees with these new decision-makers. This transition is needed to effectively build relationships, make knowledge available on-demand and gain a competitive advantage over others (Dickinson, 2021; von Rüden et al., 2020). Due to the growing video affinity in B2B, YouTube has the potential to become a pivotal platform technology to connect individuals and to communicate with customers or interested parties aiming to buy or to re-buy (von Rüden et al., 2020). With YouTube, B2B companies can benefit from the advantages arising from video-based communication and social connection between their employees and the employees of their customers (Chaffey, 2019; Yaghtin et al., 2020).

Videos can be made accessible to the target audience through Search Engine Optimisation (SEO) efforts or through posts in other social media channels, such as LinkedIn. In addition, a link to the YouTube video could also be sent directly to customers or interested parties by the sales department (Altemeyer & Terstiege, 2020). Using various digital analysis methods, valuable information about customers and potential interested companies can be identified and sales-oriented tracking can be arranged. This makes YouTube’s analytics data invaluable for the chemical industry, considering the upcoming generational change among decision-makers (Thelwall, 2018). For the tactical integration of YouTube, courage and willingness to learn are needed in order to prepare for the future in the chemical industry (Altemeyer & Terstiege, 2020).

The speciality chemical business is characterized above all by a high level of innovation (Verband der Chemischen Industrie e.V., 2016). This high innovation performance offers an excellent opportunity to create personalized videos using the proposed framework. The videos could have an educational character and create an emotional stimulus through developing a new chemical innovation. Chemical innovations may require explanations at different touchpoints before and after purchase. Different stages of the development processes and other milestones could be emotionally celebrated and shown in a video take. In this way, videos could be employed to promote cooperation within the community, and customers could be involved at an early stage of the innovation and become bound to the company. For example, customers could be informed about planned or ongoing innovations, while these customers are invited to provide early feedback. This could be done, for example, using the comment feature of YouTube. Companies may need to choose the right time to share innovations with customers due to confidentiality reasons. As innovation is a dynamic process, it is recommended to constantly create new content and to bear in mind the interrelation of the four framework elements of a video (Content, Touchpoint, Usage and Stimulus). The proposed framework helps therefore to avoid a “one-size-fits-all” approach of creating videos. As research has found that early created YouTube channels benefit from a larger viewership (Bärtl, 2018), it is seen as reasonable to recommend embedding YouTube as a social communication and interaction element into the strategy sooner rather than later. Those chemical companies using their innovation development content for YouTube videos are expected to have an advantage over their competitors and garner a large viewership.

This research has its key limitation in the small number of identified and analyzed publications using the terms “YouTube” and “B2B” in the title, abstract, keywords or as key content element. This limitation is acceptable as through the proposed framework more attention for this topic is expected. Future research is needed in the whole area of YouTube in the B2B environment, which the proposed framework supports through its
conceptualization. More research is especially needed for the four major elements, Content, Touchpoints, Usage and Stimulus, to explore in detail the characteristic of these elements.

**Conclusion**

In this paper, we give a brief overview on the current academic knowledge of YouTube usage in the B2B environment. A content analysis constitutes a useful base to develop a framework for a successful YouTube thinking behavior within B2B companies of the chemical industry. The study has shown that there is no-one-size-fits all solution for creating YouTube videos, which indicates the need for a framework allowing adaptions. The proposed framework has four major elements, Content, Touchpoints, Usage and Stimulus, which are interrelated to each other. The proposed framework allows managers to start creating videos to be posted on YouTube and to prepare for the generational change among decision-makers with new expectations on communication and social relations. In addition, this framework is expected to support the academic literature in exploring YouTube as a tool for the B2B environment and allows a structured approach for further research studies.

**References**


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