

Association for Information Systems

AIS Electronic Library (AISeL)

UK Academy for Information Systems
Conference Proceedings 2017

UK Academy for Information Systems

Spring 4-5-2017

German 'Mittelstand' and Digitisation: Preliminary results investigating promoted business literature on XING (20)

Gido Englisch

Liverpool John Moores University, g.englisch@2012.ljmu.ac.uk

Follow this and additional works at: <https://aisel.aisnet.org/ukais2017>

Recommended Citation

Englich, Gido, "German 'Mittelstand' and Digitisation: Preliminary results investigating promoted business literature on XING (20)" (2017). *UK Academy for Information Systems Conference Proceedings 2017*. 82.

<https://aisel.aisnet.org/ukais2017/82>

This material is brought to you by the UK Academy for Information Systems at AIS Electronic Library (AISeL). It has been accepted for inclusion in UK Academy for Information Systems Conference Proceedings 2017 by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

German 'Mittelstand' and Digitisation: Preliminary results investigating pro- moted business literature on XING

Gido Englisch (g.englisch@2012.ljmu.ac.uk)

Abstract

The original research for the DBA dissertation is based on the author's previous investigation within the literature concerning the topic of 'social media', showing that there seems to be a great need particularly for SMEs to implement 'social media'. How do companies decide whether to use social media if the management possibly lacks the expertise or capability? The attention for the underlying literature framework is focused on the management, as the hub linked with the topics of 'Mittelstand in Germany', 'social media' and 'decision-making'. The research aims to provide a deeper understanding concerning how management in German 'Mittelstand' today is influenced when deciding whether to use social media.

This paper presents preliminary results of the aforementioned research, namely an investigation concerning the promoted business literature of 2016 in Germany's largest networking website for business professionals, XING. Articles under investigation are concerned with the topics 'Mittelstand' and/or 'social media' ('digitisation').

Keywords: Digitisation, Mittelstand, Social Media, SMEs, Decision-Making

1.0 Introduction

Previous research within the literature, e.g. Rundstedt (2010), Mann (2012) or Kienbaums 'HR Strategy & Organisation' (2012 / 2013), concerning the topic of 'social media' has shown that there seems to be a great need particularly for SMEs to implement 'social media' in the portfolio of stakeholder communication. The question remains over how companies decide whether to use social media, including which form and to what extent. If management lacks the expertise (i.e. knowledge of the varieties or techniques of social media) or capability (i.e. time, manpower or money) to undertake sufficient research on their own, it is questionable whether they obtain advice from external parties and - if so - to what extent.

Due to of the personal interest and the professional environment, the focus is limited to the 'Mittelstand' as part of Germany's small- and medium sized enterprises (SMEs).

1.1 Rationale of the study and research objectives

This study with the objective of obtaining a Doctorate of Business Administration aims to investigate the main reasons behind current management decision-making processes regarding the use of 'social media', addressing the following problem definitions:

- a 'stocktaking' of the decision-making process in German Mittelstand regarding the implementation and use of 'social media';
- an investigation concerning the tendency to follow 'short-term fixes' - being present in 'social media' - rather than a 'long-term solution' to further extend the communication with new and existing stakeholders;
- highlight the influence of growing government or economic requirements; and
- raise the opinion of the management concerning social media and its use.

In order to achieve the research aims, four more specific research objectives have been set:

- review the literature concerning the relevant topics of 'social media', 'decision-making' and 'Mittelstand' as part of SME's in Germany;
- ascertain who is responsible for decision-making within a company and who is supporting or guiding this person, namely internal staff or external consultants;
- analyse what factors or criteria influence the decision-making, as well as to what extent; and
- visualise the entire process from the first idea of initialising a social media presence to the end, namely the decision and implementation and the potentially realised ongoing review process.

The content of this paper is a literature review, especially concerning those publications focusing on 'Mittelstand' and 'social media' or rather 'digitisation'.

2.0 Methodology and Methods

The methods used within the original research are grounded in the mainly professional-based question of how the management makes decisions and the personal interest to understand what happens during this process. Starting with a question to compare meanings, raise understanding and create new insight, in line with e.g. Easterby-Smith et al. (2012) or Duberly et.al. (2012), the personal classification within the methodology can be classified as relativistic and (social-) constructionism. Moreover, it is potentially even more important that this classification mirrors the aspect of the authors 'feel good' mentioned by Walsham (2006).

Therefore, the research will start with a questionnaire, which will be sent to SMEs in Germany by email. The questions are primarily intended to gain an overview of the single company, to subsequently cluster these companies concerning their size, industry and use of social media and finally to use these questionnaire as a gate-opener to obtain access to the management. The main research is undertaken by conducting semi-structured interviews based upon the area of interest on the one hand - decision-making, information and participants used in what kind of process - albeit with an additional focus on points found in the questionnaire, whereby the outliers and the average both hold importance. The intended interviews will be face-to-face due to the personal contact and the opportunity to gain an impression of what is said with a certain kind of behaviour.

3.0 Literature Review

The literature review is divided into the three main parts of the research question: first, a sub-section explains the meaning of the expression 'Mittelstand' and the economic relevance; second, an overview of 'social media' follows with the main focus on promoted information concerning the 'Mittelstand' and 'social media' at the German networking website XING; finally, an overview of different emphases of 'decision-making' is presented, from the general philosophical standpoint to the day-to-day activities. Due to the topic of this paper, only a brief overview of the overall section is given

3.1 Mittelstand

The expression 'Mittelstand' is something that is only known and understood in a particular way in Germany. Berghoff (2006) states that the term 'Mittelstand' is not only a neutral description or translation of the term SME as well as the owner of the company, but rather a social concept, which "strikes a balance between grinding poverty and immoral riches" (p. 264), looking at "the middle of the community". According to Berghoff (2006), this widens the term 'small and medium-sized enterprises' with a qualitative meaning to indicate the strong relationship between the company and owner. This might be a single founder or fam-

ily - in a progressed stage of the company - an external management or heirs. As long as there is a dominant family influence - regardless of the companies size or revenue - it is characterised as 'Mittelstand'. According to Günter and Gonschorek (2006), terms that are mostly used to describe these qualitative elements within the 'Mittelstand' are "flexibility, quickness, innovativeness as well as owner-management and hold by families" (p. 6). Concerning the corporate ethos, "words such as respect, integrity, quality, humility, passion, modesty and ambition" (2015, p. 86) are found by Fernández-Aráoz et al., with a 95% overlap when transcribing his interviews of firm's family members and non-family executives.

To make companies comparable for certain purposes - within a state or any other defined economic space - economic indicators have been set to define SMEs. Although Peter et al. (2013) suggest that there is no mandatory definition concerning the size of SMEs in Germany, two definitions are most commonly used: first, that of the European Commission (Recommendation 2003/361/EC adopted on 1st January 2005), which further assumes that the company is extensive independently and not more than 25% of the company is owned by any group of companies; and second, the definition from the Institut für Mittelstandsforschung (see table 1).

	Enterprise Size	Number of Employees	Business Volume (up to)	Total Assets (up to)
EU-Comm.	midsize	< 250	50 mEUR	43 mEUR
	small	< 50	20 mEUR	10 mEUR
	micro	< 10	2 mEUR	2 mEUR
IfM	midsize	< 500	50 mEUR	
	small	< 10	1 mEUR	

Table 1: Classification of Mittelstand

Family-owned and -managed companies are the heart of the global economy and play an important role within many countries. According to Fernández-Aráoz et al.(2015) 80% of companies worldwide are family-owned or -controlled, whereby in most countries these companies are the most important employer. In Ger-

many, almost 77% of companies classified as SMEs are family-owned and -managed (Mittelstandsforschung, 2014). In combination with the overall rated German SMEs, based on the figures of 2014 (Technologie, 2013 / 2014) their strong economic relevance can be displayed (see figure 1).

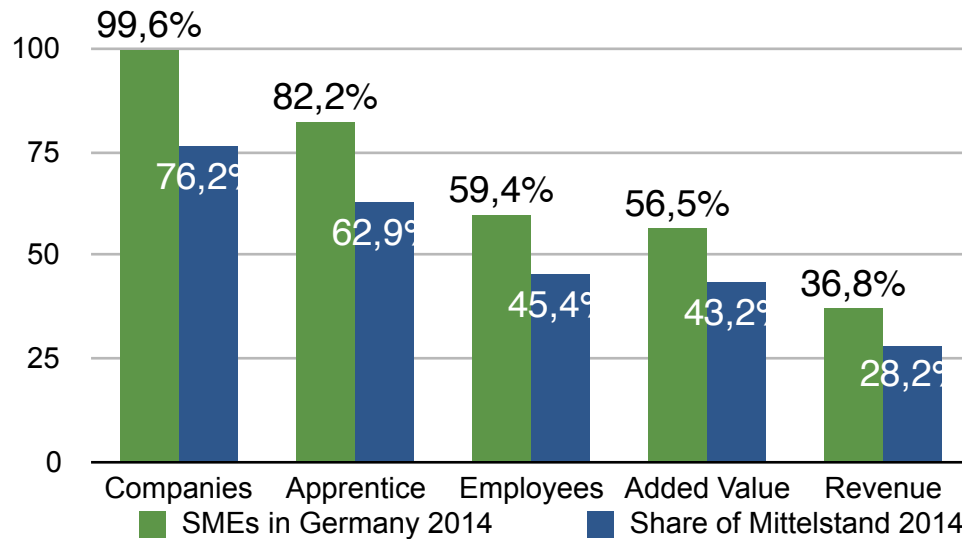


Figure 1: SME's and Share of Mittelstand in Germany

Examples illustrating that the German 'Mittelstand' has been leading in respective industries (Simon, 1992) include Baader (fish-processing machines), Märklin & Cie. (Model railways), Stihl (chain saws) and TetraWerke (tropical fish food).

3.2 Social Media

The literature review for the final dissertation will be divided into three different directions of social media: first, the company's perspective, especially analysing the usage for marketers looking at products and customers; second, even within the company, considering the requirements for staff, techniques and management in an advisory capacity; and third, outside the company but related to goods and services is the customer and his/her use of social media when making (buying) decisions. Despite being outside the company influence, this third important point for the research holds strong importance for every business and marketer because according to Powers et al. (2012), they have to understand

"how digital and social media are used in the purchase decision-process" (p. 479).

The notation of 'social media'¹ covers a wide range of different content and techniques. According to Kaplan and Haenlein (2010), there is a distinction between the technique (Web 2.0) and 'user generated content' (UGC), which "can be seen as the sum of all ways in which people make use of Social Media" (p. 61). The following table "offer[s] a snapshot of social media functions and popular platforms" (Auer, 2011, p.711) around 2010:

Forms of Social Media	Illustrative Platforms
Blogs	Blogspot, LiveJournal
Forum	Yahoo! answers, Epinions
Mediasharing	Flickr, YouTube, Digg, Reddit
Microblogs	Twitter, foursquare
Social networks	Facebook, Myspace, LinkedIn, Tribe

Table 2: Social Media, adapted from Tang, Liu (Auer, 2011, p.711)

A more detailed and updated overview is provided by Cavazza (2013) in the following figure. Beside the centred main actors within social media - Facebook, Google+ and Twitter - "there is a wide spectrum of niche applications that provide value from more focused activities" (Nagle and Pope, 2013, p. 285).

¹ Lei, T, & Huan, L 2010, 'Community Detection and Mining in Social Media', Synthesis Lectures On Data Mining & Knowledge Discovery, 2, 1, p. 1



Figure 4: Social Media - overview (Cavazza, 2013)

One objective of the literature review is to sight a broad range of existing literature, the sources of interested groups: academic and popular science, websites as well as guidebooks or articles in newspapers and journals. For this purpose, amongst others the networking website for professionals XING is constantly reviewed by using the offered industry and management newsletter.

Digitisation in general seems to be important; indeed, even the World Economic Forum in Davos dealt with this topic in 2016 (Knop, 2016). Despite originally looking at education at schools and universities, digitisation is also important for enterprises, regardless of their size. A consent is assumed: companies will sell less products but more services "and that the only way to achieve this is through education". In a similar vein, the managing director of the German Chamber of Industry and Commerce stated (dpa/tc, 2015): "Digitisation is not a trend, but a fundamental change in market structures affecting all sectors".

However, there are different perceptions concerning what 'Digitisation' really means. According to the German journal 'Computerwoche' (Wießler, 2016), the understanding of German managers, Chief Information Officers or Employees is threefold: first, there is the use of any kind of CRM software (Customer-Relationship-Management); second, the implementation of IT-supported supply chains or the linking of different manufacturing environments; and third, the use of social media and - especially for specialised trading houses - the development of online

distribution channels. Although these three characteristics are part of what is understood as 'digitisation', the generally accepted list of essential points might contain the following:

- Using data to build a new context
Not only collecting the data but using it for internal analysis, diagrams or to link internal and external data (weather, raw material prices, etc.) to build precisely forecast
- Building new business models
The proactive use of data - e.g. send by IoT components - helps to build initiatives like "predictive maintenance"
- Customer-benefit as the centre
Online status of deliveries, buying tickets online via smartphones or the service company Uber are examples of "disruptive" business models
- Quick reaction to threats
Like "predictive maintenance" the connection of machine and manufacturer can help to decrease down-times
- integration of departments and employees
To get the best out of the data given or the information collected, the whole company has to act in unison

Another commonly mentioned and thus noteworthy expression is the so-called 'Industry 4.0', the 4th industrial revolution. This term is used exchangeably with 'digitisation', although this classification might be too early due to the ongoing use of microelectronics analogous to the Industry 3.0, starting in 1975. Especially for SMEs - crafts included - a great need is seen for digitised production ranges. "If we lose the middle class², we also have a problem in the economy" (dpa/tc, 2015) according to S. Russwurm, Siemens Research Board and the Federal Minister of Economics in Germany, S. Gabriel. However, not every company agrees with this: only every fifth SME has a digitised production range and every fourth thinks that this is irrelevant.

Threats to the ongoing digitisation including hacker attacks and data theft, whereby "each 10th medium-sized company³ was hit at least once in 2014 by an attack from the Internet" (dpa, 2016). According to studies by PricewaterhouseCoopers, "many SMEs⁴ have not yet recognised the seriousness of the situation and do not have adequate technical safety measures" (dpa, 2016). This is even more important when considering that the economic loss is assumed with an average of 80,000.00 €. Another weak point is the own workforce: "unconsciously

² Original: Mittelstand (means the companies, not the community)

³ Original: mittelständische Unternehmen

⁴ Original: Mittelständler

as when downloading malware or intentionally, for example, when employees copy corporate data to private data carriers" (Kontio, 2016). In general, the topic of IT safety is seen as undervalued by the German 'Mittelstand'. Especially smaller companies experience a lack of IT control and "because of the high speed of digitisation, there are always new possibilities to attack a company" (Kontio, 2016).

Nonetheless, there are some problems to overcome. One example is the necessary infrastructure for digitisation: "in small businesses, particularly in rural areas, digitisation has often failed at the internet connection" (Bethke, 2016). Other problems include a small budget, the lack of specialised knowledge or a lack of qualified employees.

A different picture is given by Luther (2016) when stating that "more and more hunted are now becoming hunters". Although even he admits that there is still a lack of specialised employees, the cited research of German Commerzbank and EY Advisory shows that the 'Mittelstand' understands that "success is also a question of corporate culture in times of digital transformation" (Luther, 2016).

Zimmermann (2016) provides a comprehensive overview of almost all of the aforementioned opportunities and threats. Although looking from a financial perspective - the KfW is financing different kinds of projects in Germany, Europe and throughout the world - a stable network connection, data-safety and protection as well as a specialised education are basic requirements for "triggering a shift in digitisation". However, his research also showed that "many companies are not aware of the possibilities and benefits of digitalisation" (Zimmermann, 2016).

3.3 Decision-Making

This section explores three different perspectives of 'decision-making'. First, there is the theory of Jürgen Habermas: Communicative action, indicated by the two conditions (Chang and Jacobson, 2010, p. 664) of validity claim and speech conditions. The criteria for the first condition - 'validity claim' - are whether the speaker is among others intelligible and telling the truth. The second condition of

'speech condition' summarises the criteria that "examine the general soundness of the communication environment" (p. 663). Picking up the theme of Habermas' 'ideal speech situation', this means that the environment or individual circumstances may hinder participants from speak openly. Second, there are course books like Gerd Gigerenzer's⁵ "Risk Savvy: How To Make Good Decisions" or Daniel Kahneman's⁶ "Thinking, Fast and Slow" as well as journals like "Harvard Business Manager" (HBM). The extended German edition of the US-based "Harvard Business Review" (HBR) placed an emphasis on the topic 'decision-making' in the issues from January 2014 (HBR) and August 2015 (HBM). Despite being scientifically written, these articles are understandable even for non-scientists and provide insights into the latest research. This articles even offer a guideline to reconsider one's own standpoint and action. Finally, Simon's (1960) normative decision-making model is considered. According to Nagle and Pope (2013), it has been used in past studies "as a lens to understand enterprise application selection". Originally designed as a three-stage model, the "review" phase has subsequently been added to complete the process (see table 2).

Phase	Explanation
Intelligence	a pre-planning stage where organisational prerequisites are carried out to guide the latter stages of the process
Design	because of the wide variety and flexibility given by social media applications, requirements of the company and scope of the tool are compared
Choice	the application choice, based on the needed / given design, 'first port of call' or 'niche application'
Review	the review stage is important in the selection process as it provides perspective on the success or failure of the application

Table 3: Simon's decision-making model

Owing to the simplicity that these steps within this model provide, it will be used within the research as a basis to compare the course of action when looking at different companies.

⁵ GIGERENZER, G. 2014. Risk savvy: How to make good decisions, Penguin

⁶ KAHNEMAN, D. 2011. Thinking, Fast and Slow, Straus and Farrar

4.0 Findings & Conclusion

As mentioned above, this paper is an excerpt of ongoing research. Despite providing an overview of the complete research, it is limited concerning the original scope as well as the material presented.

Nevertheless, it can be noted that the economic power of the German 'Mittelstand' as part of small- and medium-sized enterprises as well as German SMEs on the whole is remarkable. It might be incomprehensible to understand why this distinction between 'Mittelstand' and SME is necessary, although being part of such a workforce and having the chance to experience the difference of characteristics like "flexibility, quickness, innovativeness" (Günther and Gonschorek, 2006) as well as "respect, passion and ambition" (Fernández-Aráoz et al., 2015) can make a substantial difference for most employees.

It has been shown that the term 'digitisation' can generate a different understanding of the included tools and techniques, although the necessary differentiation is very rarely performed. This is even more important when presuming that small companies (up to ten employees) like painters and industry- or world-leading companies like the 'Würth Group' - an international wholesaler for assembling and fastening materials in the metal, car, wood and construction industry, with more than 6,000 employees in Germany (64,000 employees worldwide) today - are compared. Bearing this in mind, the lack of knowledge, specialised employees as well as small budget may be acknowledged as an important reasons for the deficit in 'digitisation'.

Although the German 'Mittelstand' as a whole is perceived as something special, it would be preferable for further research to structure these companies according to their economic power and reach.

"Digital transformation / evolution must be designed individually for each individual company. There is no standard set of measures and tools. There can be none. Each company is individual, both in terms of the products or services it offers, as well as in terms of the employees whose composition must be individually considered" (Fürg, 2016).

Bibliography

- AUER, M. R. 2011. The Policy Sciences of Social Media. *Policy Studies Journal*, 39, 709-736.
- BERGHOFF, H. 2006. The End of Family Business? The Mittelstand and German Capitalism in Transition, 1949-2000. *Business History Review*, 80, 263-295.
- BETHKE, L. 2016. Dgi - wie bitte? Available: <http://www.manager-magazin.de/unternehmen/artikel/cebit-2016-digitalisierung-in-kmu-noch-nicht-angekommen-a-1082682.html#spRedirectedFrom=www> [Accessed 17.03.2016].
- CAVAZZA, F. 2013. *Social Media Landscape 2013* [Online]. Available: <http://www.f-redcavazza.net/files/2013/04/Panorama-MS-2008-12.jpg> [Accessed 23.08.2014 2014].
- DPA. 2016. Hacker-Angriffe: Cyber-Kriminalität wird für den Mittelstand immer teurer. Available: http://www.wiwo.de/unternehmen/mittelstand/hannovermesse/hacker-angriffe-cyber-kriminalitaet-wird-fuer-mittelstand-immer-teurer/12811380.html?xing_share=news.
- DPA/TC. 2015. Der Mittelstand wird allmählich digital. Available: <http://www.computerwoche.de/a/der-mittelstand-wird-allmaehlich-digital,3217085> [Accessed 31.01.2016].
- DUBERLEY, J., JOHNSON, P. & CASSELL, C. 2012. Philosophies underpinning qualitative research. *Qualitative Organizational Research: Core Methods and Current Challenges*.
- EASTERBY-SMITH, M., THORPE, R. & JACKSON, P. 2012. Management research. London : SAGE, 2012.4th ed. / Mark Easterby-Smith, Richard Thorpe and Paul Jackson.
- FERNÁNDEZ-ARÁOZ, C., IQBAL, S. & RITTER, J. 2015. Leadership Lessons from Great Family Businesses. *Harvard Business Review*, 93, 82-88.
- FÜRG, D. 2016. Warum Digitalisierung nicht für alle gleich funktioniert ... *Daniel Fürg* [Online]. Available from: https://www.xing.com/news/insiders/articles/warum-digitalisierung-nicht-fur-alle-gleich-funktioniert-505296?xng_share_origin=web [Accessed 28.11.2016 2016].
- GÜNTHER, T. & GONSCHOREK, T. 2006. Wert (e) orientierte Unternehmensführung im Mittelstand.
- KAPLAN, A. M. & HAENLEIN, M. 2010. Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53, 59-68.
- KNOP, C. 2016. Das ist die größte Herausforderung der Digitalisierung. Available: <http://www.faz.net/-gqe-8cqzl> [Accessed 31.01.2016].
- KONTIO, C. 2016. IT-Sicherheit im Mittelstand: "Die eigenen Mitarbeiter sind die größte Schwachstelle". Available: http://www.handelsblatt.com/technik/sicherheit-im-netz/it-sicherheit-im-mittelstand-die-eigenen-mitarbeiter-sind-die-groesste-schwachstelle/14550666.html?xing_share=news [Accessed 19.09.2016].
- LUTHER, T. 2016. Digitalisierung im Mittelstand: Auf der Überholspur. Available: <http://app.handelsblatt.com/unternehmen/leasing/digitalisierung-im-mittelstand-auf-der-ueberholspur/14616262.html> [Accessed 01.11.2016].

- MANN, J. 2012. *Wie KMU erfolgreich für sich werben* [Online]. business-wissen.de. Available: <http://www.business-wissen.de/personalmanagement/personalmarketing-von-kmu> [Accessed 2013].
- MITTELSTANDSFORSCHUNG, I. F. 2014. Informationen zum Mittelstand aus erster Hand. In: MITTELSTANDSFORSCHUNG, I. F. (ed.). Bonn: Institut für Mittelstandsforschung.
- NAGLE, T. & POPE, A. 2013. Understanding social media business value, a prerequisite for social media selection. *Journal of Decision Systems*, 22, 283-297.
- POWERS, T., ADVINCULA, D., AUSTIN, M. S., GRAIKO, S. & SNYDER, J. 2012. Digital and social media in the purchase-decision process: A special report from the Advertising Research Foundation. *Journal of Advertising Research*, 52, 479-489.
- RUNDSTEDT, S. 2010. *Wie Mittelständler sich gegenüber Großkonzernen behaupten können* [Online]. Available: <http://www.business-wissen.de/personalmanagement/employer-branding-wie-mittelstaendler-sich-gegenueber-grosskonzernen-behaupten-koennen> [Accessed 2013].
- SIMON, H. 1992. Lessons from Germany's Midsize Giants. *Harvard Business Review*, 70, 115-123.
- SIMON, H. A. 1960. The new science of management decision.
- TECHNOLOGIE, B. F. W. U. 2013. Wirtschaftsmotor Mittelstand - Zahlen und Fakten zu den deutschen KMU.
- WALSHAM, G. 2006. Doing interpretive research. *European Journal of Information Systems*, 15, 320-330.
- WIESSLE, J. 2016. Digitalisierung macht Spaß! Available: http://www.computerwoche.de/a/digitalisierung-macht-spas,3225604?xing_share=news [Accessed 08.05.2016].
- ZIMMERMANN, D. V. 2016. Digitalisierung im Mittelstand: Status Quo, aktuelle Entwicklungen und Herausforderungen. In: KFW (ed.). Frankfurt: Kreditanstalt für Wiederaufbau.