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**MODERATORS AND VARIABLES IN  
SOLUTION SALES AND THEIR  
IMPLICATION TO SALES  
PERFORMANCE IN AUSTRIA  
AND GERMANY**

Theses of the Doctoral (PHD) dissertation

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# **1 Introduction**

## **1.1 Background**

The question regarding ways to sell products or services has a long history, whereby product-centric sales was dominating in the past (Dubinsky & Rudelius, 1980). The business 30 years ago was mainly product-driven. In times of globalisation and digitalization the business has been shifting more and more towards a service-oriented industry. Scholars and organisations have recognized that solution implementation is not an easy task. That is why many firms are struggling with the transformation from product-centric processes to solution selling. Previous academic literature yielded rare output on how to transition the salesforce from product selling to solution selling (Panagopoulos et al., 2017; Ulaga & Loveland, 2014).

This present dissertation provides a detailed overview of variables and moderators that can influence solution-oriented sales. In particular, the organizational and individual influences on sales performance are elaborated upon. These have their origin in the 19th century and have constantly evolved. Sales processes have always been interesting for scientists. Due to the free market but especially due to digitalization and globalization, individual customer solutions have become more and more important.

Sales performance is also closely connected to financial expectations and this is evident in academia as well. However, performance is a complex topic and will have a great potential in relation to non-

financial figures. From the interviews, as well as the review of the literature, a large number of non-countable and subjective sales performance variables emerged. Scholars like Verbeke et al. (2011) have elaborated different variables on organizational and also individual level, but existing research on these variables are not meaningful in terms of the individual sales person level.

The main suggestion is to find a more precise grading, as well as influencing variables for sales performance. This supports the significance of this present thesis.

The thesis wishes to examine this specific problem of influencing variables from a wider perspective and not only from a single side such as the personal view. The organizational variables will be explored with regard in a deeper interconnection to the sales performance.

## **1.2 Objectives**

The thesis follows multiple objectives. In regards of the literature the objective is to analyse the existing literature in terms of solutions in a sales process with the specific focus on variables which influence the individual sales performance. With the gained expertise, it will be possible to deduct possible outcomes to improve solution selling on individual and organization level. Furthermore, the gaps in the literature were analysed in relation to solution selling.

The objective in terms of data evaluation was to gather qualitative and quantitative information from two countries especially Austria and Germany. Therein 17 different industry sectors were addressed. This guarantees a meaningful data set to verify the variables and moderators in solution selling in relation to performance.

Regarding the above-mentioned importance and the targeted literature review, as well as the empirical interviews in solution selling and main gaps, the following research question was developed:

Which variables on the individual sales person level influence the sales performance for solution selling?

### **1.3 Hypotheses**

In the following paragraph the hypotheses were listed chronological. Hypothesis H 2.1 to H 5.1 have the common rule that H1.1 is the prerequisite for sales performance. The hypotheses cover individual and organizational variables.

The first hypothesis analyses the direct influence of solution implementation in a selling process. This independent variable has a direct connection to sales performance and is formulated as follows:

*H1.1: Solution implementation increases individual sales performance*

The second hypothesis covers the individual sales characteristics of a salesperson. This independent variable consists of three main

properties like experience, knowledge and risk perception. *H2.1: Individually gathered sales characteristics will positively influence the sales performance*

The third hypothesis focused on the sales capabilities of a sales person and could be influenced by the adaptive and value creation capability of a sales person. *H3.1: Individual sales capability characteristics will result in higher sales performance*

In the fourth hypothesis the author investigates in the communication capability and found two moderators like solution engagement and the communication channels as moderators. *H 4.1: Communication capability positively moderates the relationship between solution implementation and sales performance*

Because the present research covers individual and organizational variables the fifth hypothesis deals with the organizational requirements. Moderators for the fifth hypothesis cover resources, motivation as well as process & structure of an organization. *H 5.1: Salespeople who get individual and suitable resources will increase their sales performance*

To understand the connection between the individual and organization variables in accordance with depended and independent variables a research model was developed. The model explains the correlation between the five independent variables with the depending variable

'individual sales performance'. In the following Figure 1 the research model including the detailed description of moderators is shown.

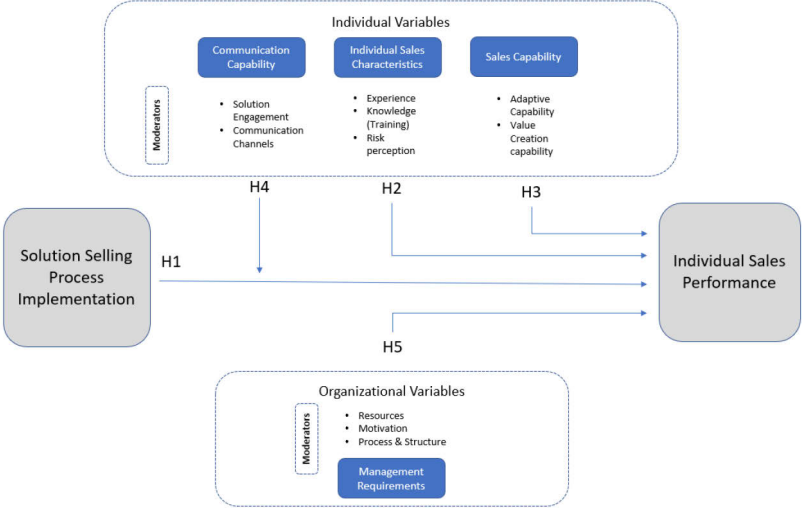


Figure 1: Research model of hypotheses

Source: Author's own design



## **2 Research methodology**

In the complex situation of sales, the author chose the abductive approach for the stated problem. Since it was decided to examine the sales population of Austria and Germany regarding solution sales and the related sales performance, initial feedback from practitioners was regarded as helpful. This is why it was decided to structure the research procedure in pre-studies with qualitative interviews to develop the scale for the large qualitative survey. Through the qualitative input of the pre-studies additional information was gained from the interviewees. The most significant benefit, however, was the qualitative contribution on the subject. The research concept consists of four phases.

The first phase for a qualitative pre-study which means in depth interviews to get a general overview of the importance in solution selling.

The second phase continued with a second qualitative pre-study of in-depth interviews. Additionally, this phase also included the literature review. According to the revealed information from sales people as well as sales managers the literature review was adjusted and refined.

The third phase was to establish and perform a large-scale survey. Therefore, the survey software 'Unipark' was used. After the main variables and moderators were defined an online questionnaire was created. For each moderator variable three to four questions are used

to verify the hypotheses. Each question employed a five-point Likert scale. With this design parameters 5,319 salespeople were contacted through different channels. As output of the survey 313 data sets could be used for the actual thesis.

The fourth phase consists of the data evaluation. To verify the established hypotheses it was necessary to use adequate statistical measurements. In the present thesis SPSS was used to analyse the elaborated data. With these datasets it was possible to test the hypotheses with statistical methods. On the basis of the analysed data it is possible to use the multiple linear regression method. In the actual statistical calculation, the regression coefficient as well as the significance will be used to evaluate the hypotheses. To determine whether the hypotheses apply or not the judgement of Cohen (1992) was accessed. The following table will summarize the hypotheses results.

*Table 1: Summary of the hypotheses testing*

H 1.0	Solution implementation declines or does not increase individual sales performance	X
H 1.1	Solution implementation increases individual sales performance	✓
H 2.0	Individually gathered sales characteristics will not or negatively influence the sales performance	X
H 2.1	Individually gathered sales characteristics will positively influence the sales performance	✓
H 3.0	Individual sales capability characteristics will not result in higher sales performance	X
H 3.1	Individual sales capability characteristics will result in higher sales performance	✓
H 4.0	Communication capability does not moderate the relationship between solution implementation and sales performance	✓
H 4.1	Communication capability positively moderates the relationship between solution implementation and sales performance	X
H 5.0	Salespeople who get individual and suitable resources will not increase their sales performance	X
H 5.1	Salespeople who get individual and suitable resources will increase their sales performance	✓

*Source: Author's own design*

### **3 New scientific contributions**

#### **3.1 Unique research in Austria and Germany**

The novelty of this research is manifold in different aspects. **It's the first research in terms of individual sales performance in relation to solution selling involving different industry sectors in Austria and Germany.** The research encompasses qualitative interviews in relevant industry sectors with salespeople and sales managers and will be supported through an emitted quantitative survey to 5,319 contacts. With meaningful feedback from 377 respondents a deep analysis of both qualitative and quantitative inputs was done. From the scientific perspective this research contributes the rare existing literature which mainly focus on psychological, organizational or meta-analysis results (Verbeke at al., 2011). The current research developed the individual variables in different areas at the salesperson level.

#### **3.2 Long-term performance and customer loyalty**

The scientific contribution in this research is that implementing solution selling processes in sales strategies of B2B companies will increase the individual sales performance in the long term. Especially medium and large companies have hold on too long for product centred strategies. In that way it will be hard to hold customers on the long run. Analysis like S&P 500 showed that product-centred firms failed to reach their expectations in terms of performance. The main contribution to see solutions as long-term performance is confirmed

through several qualitative and quantitative inputs in this research. **If companies include solution selling processes the customer loyalty and long-term performance values will increase.** The research result shows that the expected hypothesis H1.1 is relevant and will be accepted. Through the collected statistical data the author showed the subjective performance increase through solutions. Solution selling patterns could be seen as a sustainable KPI (key performance indicator) for management strategy evaluations.

### **3.3 Sales experience lost the first rank in relation to performance**

In terms of individual characteristics and capabilities this research revealed an important contribution. Different scholars in the past declare individual characteristics like experience (Salonen, 2020; Lemon & Verhoef, 2016) or communication (Verbeke et al., 2011) as crucial in terms of performance. This research allows a different perspective on the complex topic of individual sales characteristics. **Sales experience in relation to solutions is replaced from the first rank as one top driver for sales performance.** With hypothesis H2.2 the author expected that individually gathered sales characteristics positively influence the performance. In case that the actual research covers experience, knowledge and risk within the variable individual sales characteristics the author could accept the result in general. However, experience still help to engage for solutions. In detail, sales experience will help for onboarding

processes and should be supported through individual training. This will lead to new hired salespeople paying off earlier.

### **3.4 Solutions generate a positive attitude to risk**

Beside the investigation of main drivers the research spawned a side effect. The surprising impact was the risk perception. **The survey revealed that salespeople have a more positive setting on risk perception than the management level.** In case that this research was conducted during COVID-19 the salespeople learned to deal with new situations day by day. That implies that sales managers should hand over more responsibility to salespeople which could lead to higher performance values.

### **3.5 Adaptability has the strongest influence on sales performance**

The most important academic finding is the potential of the adaptability in a sales process. This property is capable of a salesperson flexing style to adapt to that of the buyer. The astonishing result and high correlations are in line with the findings of scholars who saw the importance of adaptability rising (Viio, 2011; Nguyen, 2019). Adaptability in sales processes, but also in terms of product and service, diminishes value creation in its priority. **The research developed that adaptability has the strongest influence on sales performance in regard to solutions selling.** This novelty implies that a specific or individual support of the organization and especially

non-salespeople will be necessary for salespeople. The finding has a big impact and a leverage for the human resource management. With this recognition it will be possible to adjust the recruiting process to find suitable staff for customer solutions.

### **3.6 Individualised motivation**

The last-mentioned novelty revealed through this actual research is named with management requirements. This variable is new in the academical literature in this perspective and connect the individual with the organizational characteristics. Whereby the processes and the organization level seem to be in line with the expectations from salespeople but the resources and motivation revealed new insights. In conservative industry segments like automotive or mechanical manufacturing companies have to transform their motivation and incentive system. Financial incentives will no longer be the only scale for motivation. **Motivation and incentives have to be individualised and must include non-financial ratings.** Therefore, the management has to establish new and individual KPI's for performance levels. For example, duration of partnerships with customers, individual completed training modules, training through sales champ or green goals could be new indicators.

Beside the individual KPI's also resources should be personalized. Individual training and organizational non-sales support will positively influence the individual sales performance.

## **4 Results and conclusions**

As a general output this study revealed the information that different parameters are responsible for the individual sales performance. This is not a completely new idea since Salonen et al. (2020) argued in a similar direction. Analyses by Churchill et al. (1985) and Verbeke et al. (2011) about variables in sales provided a starting point for this present research. The novelty of this study is that the rare existing studies on individual performance were extended and viewed from a new perspective. The intention was to gather more scientific information on the sales person level in relation to the sales performance. From this point of view the following research question was formulated.

Which variables on the individual sales person level influence the sales performance for solution selling?

To answer this question existing literature concerning relevant variables was examined. Therefore, the rare literature on sales person level was used and combined with the literature on the organizational level. Since many variables emerged, especially on the organizational level, these were combined into moderator variables. The next step was to summarize these variables and find a transformation to the sales person level. These transformed categorizations were the new variables for further research in this study.



With this new and unique transformation of variables it was possible to describe the connected individual sales variables. The final newly developed variables are 'individual sales characteristics', 'sales capability' and communication capability'. Since the individual sales person is always embedded in an organization with defined structures and management rules this influencing factor was also included as the variable 'management requirements'.

Scholars see a vast movement in the sales environment. This study found that additionally to knowledge, experience and motivation which are important moderators 'adaptability' of the sales behaviour is crucial to improving the performance. This is followed by the 'value creation' moderator. This supports the fact that solutions in sales which will be the driving forces in the future.

However, this study contributes to the existing literature in several ways. On the one hand it supports findings like Ulaga and Loveland's (2014) who identified 13 different individual characteristics. Some of them are in line with the present study. In their research they interviewed 20 managers and revealed that the managers see most deficits in learning orientation, customer service orientation and intrinsic motivation. However, the current research focused not only on the manager level but rather on salespeople. That means the findings can be compared and contrasting aspects identified. Salespeople want to learn more but they need individual training and not standardized sales training. Also, the customer orientation will be

seen differently as well as the intrinsic motivation. In general, it seems that there is not only a change in the sales technique; there is also a development in the behaviour and in the individual sense of the sales job. Managers have to provide adapted and targeted trainings adapted to their customers and products or services.

Another interesting moderator variable is the risk parameter. Salonen et. al (2002) argued that risk perception must be seen as a critical condition which is negatively connotated. Their research, however, may not be as relevant as only one organization was considered. In the present study risk seems to be perceived more neutrally or even positively. Many of the participants connect risk in sales to the development of new products or services in the long run. That means that managers should trust salespeople and give them a higher personal responsibility for business decisions.

Common findings could be identified with Salonen et al. (2020) regarding the training of salespeople. In both research studies the main result is that if sales champs support salespeople, especially through the onboarding phase, they will pay off in a shorter period than if they have to make their own experiences. This study showed the same preference on the side of salespeople which will be helpful for managers in their onboarding programs.

It seems that especially the last three years have transformed the salespeople's behaviour. The new normal for everyone is that many

daily tasks have changed since COVID-19. This helps the sales organization with its transformation. Salespeople seem to have a positive attitude and accept the transformation rules easier.

#### **4.1 Limitations and recommendations**

The limitation of this present study offers avenues for further research topics. First, this study revealed only insights in two industrial countries (Austria and Germany). A broader international view on solution sales would contribute to the field and give even more insights. Secondly, in this study the priority was on the B2B customer area. It could be useful to investigate into the B2C environment too and make connections between the business cases. All in all, it seems that there is a shift towards service- and solution-orientated sales. Thirdly, the research was done during COVID-19 which means that people were in a special work mode with home office, digital developments and other disruptive behaviour. A comparative survey should be done after a few years to verify the outcomes of this study.

## 5 Authors academic publications

Ledinger, S., and Maier, G. (2021). Rationality of Decision Making in B2B Sales: Determinants of Outcome in Complex Seller-Buyer Interactions. Proceedings of the International Scientific Conference on the Occasion of the Hungarian Science Festival, "Crisis and Recovery: Innovative Solutions", p. 289-302. [ISBN 978-963-334-372-2](#)

Maier, G., and Ledinger, S. (2021). Visualization in B2B Sales: Professional Selling Aids and the Effect on Sales Outcome. Proceedings of the International Scientific Conference on the Occasion of the Hungarian Science Festival, "Crisis and Recovery: Innovative Solutions", p. 303-316. [ISBN 978-963-334-372-2](#)

Maier, G. (2021a) Performance in B2B Sales: An Explanation How Channel Management and Communication Influence the performance of a firm. Journal of contemporary issues in economics and business, Published by University of Maribor p. 38-48. [DOI: 10.2478/ngoe-2021-0016](#)

Maier, G. (2021b) Solutions Selling in B2B: Perception of Solution Selling in Challenging Times from Management, Salespeople and Customers. Proceedings of 5th International Scientific Conference of the University of Maribor, "Is it time for a total reset? p.100 - 112 ISBN 978-961-286-464-4, DOI: <https://doi.org/10.18690/978-961-286-464-4>

Maier, G. (2022a) Develop correlations of digital transformation and adaptiveness in B2B sales in relation to resilience. Proceedings of International Scientific Conference, „PANDEMIC – SUSTAINABLE MANAGEMENT – ENVIRONMENTAL AWARENESS”, “Is it time for a total reset? University of Sopron, Alexandre Lamfalussy Faculty of Economics. [DOI: 10.35511/978-963-334-411-8\\_s5](#)

Maier, G. (2022b) “Evolving Drivers for B2B solution selling: Including importance of moderators for solutions”, 6th INTERNATIONAL SCIENTIFIC CONFERENCE FOR DOCTORAL STUDENTS AND EARLY-STAGE RESEARCHERS, University of Applied Science Burgenland, [ISBN: 978-3-9519937-2-0](#)

Maier, G. (2023a) “The Cameroon Anglophone Crisis in the Wake of Covid 19 Pandemic: Reflections beyond the Casfire”, International Journal of Science, Engineering and Technology Volume 11 Issue 3, [ISSN \(online\) 2348-4098, ISSN \(print\): 2395-4752](#)

Maier, G. (2023b) “B2B Solution Sales in Times of Crises: Implications for People and Processes”, American Research Journal of Humanities Social Science (ARJHSS), Volume 06 Issue 06, pp 58-63, [E-ISSN: 2378-702X](#),

Maier, G. (2023c) “Implications for customer solutions in a post-COVID era”, Scientific Journal of the Faculty of Business Management, University of Economics in Bratislava, pp 39-47, [ISSN: 2454-1028](#)

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