The Growing Need of Business Thinking in Oral Health Care

-

A Qualitative Study about Germany; Validation in Hungary

Jean-Pierre Himpler

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THE GROWING NEED OF BUSINESS THINKING IN ORAL HEALTH CARE -
A QUALITATIVE STUDY ABOUT GERMANY; VALIDATION IN HUNGARY

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Dedication

Dedicated to the open-minded and all that are willing to go the extra mile to develop this mental stage.

Jean-Pierre Himpler

Abstract

A range of aspects influence the quantifiable success of companies. This study is pioneering in the field of investigating success influencers in oral health care from an academic perspective. To understand the field, qualitative interviews in Germany and Hungary were conducted. Quantitative testing in Germany relapses to conclude that some actions lead to quantifiable results, however, that an entire strategy is required to take maximum profit out of an oral health care practice or health care centre. The use of complete corporate identity (or none, not just a bit), online recommendations on specific platforms, outsourcing and the collaboration with recruiting agencies are actions taken by practices that excel, no matter their size. The study closes with a consulting plan and also the elaboration of an oral health care business administration module and how this could be composed in a university context addressing nascent practitioners and their very specific needs in Germany.

Keywords: Health Care, Business Success Factors, Oral Health Practices, Medical Management

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List of Abbreviations

A	Assistant / Practice Team Member
AI	Artificial Intelligence
AVWG	Supply and profitability of medication act (Arzneimittelversorgungswirtschaftlichkeitsgesetz)
B	Big
BD	Business Driven
Bn.	Billion
C	Consulting
CC	Cash Cow
CI	Corporate Identity
e.g.	exempli gratia – for example
eG	registered cooperative (eingetragene Genossenschaft)
EG	European Community (Europäische Gemeinschaft)
EP	Experienced Practitioner
EU	European Union
F	Finance / Banking
FG	Focus Group
FU	Follow-up Interviewee
GB	General Business
GbR	Partnership (Gesellschaft bürgerlichen Rechts)
GmbH	Limited Company (Gesellschaft mit beschränkter Haftung)
GKV	Statutory health insurance (Gesetzliche Krankenversicherung)
GKV-WSG	Statutory health insurance competition strengthening act (GKV-Wettbewerbsstärkungsgesetz)
GKV-VStG	Statutory health insurance supply structure Act (GKV-Versorgungsstrukturgesetz)
GKV-VSG	Statutory Health Care Supply Strengthening Act (GKV-Versorgungsstärkungsgesetz)
GMG	Statutory health care modernisation act (GKV-Modernisierungsgesetz)
H	Hungary / Hungarian
HC	Health Care

HCC	Health Care Centre
HCI	Health Care Insurance
HCS	Health Care System
HWG	Therapeutics advertisement act (Heilmittelwerbegesetz)
I	Practitioners International
Inh.	Inhabitants
k	1.000
L.	Left
Lab	Laboratory Staff
M	Manager
MG	Marketing Guru
OECD	Organisation for Economic Co-operation and Development
OH	Oral Health
OHC	Oral Health Care
P	Practitioner
R	Rural
R	Right
S	Small
VÄndG	Panel doctors' rights amendment act (Vertragsarztrechtänderungsgesetz)
WOM	Word of mouth
NCS	non-contractual Services
NEAK	National health insurance fund manager (Nemzeti Egészségbiztosítasí alapkezelö)
U	Urban
VI	Very Important

1. Introduction

Overall in health care (HC) the demand for administration and business thinking is growing and thus the time practitioners in small, especially owner-run practices can spend on treating patients, rather than meeting competitive market or business demands and fulfilling administrative requirements, is diminishing [1]. Business demands and patient demands are contradicting – whereas from a business perspective there is only limited time per patient and a broad range of high margin treatments should be sold to a high number of patients in a short time, patient focus may require long and intensive analysis to find the respectively suitable treatment that eventually only has a comparably low margin. Thus, there is a certain conflict of interest. Some first attempts of voluntary entrepreneurial training for medical practitioners can be seen in Berlin [2]. But the importance placed on business training in the education for medical professionals in Germany still is neglectable [3]. Other health professionals such as physiotherapists or speech therapists are also primarily trained for high quality medical treatment [4] and suffer from the same training deficiency: business education is missing. Overall, the competition in HC is growing [5]. The opening of potential new practices is not limited by admission constraints anymore [6]. The market is seen as turbulent and particularly dynamic, requiring highly flexible business processes [7]. Therefore, the need of business thinking and economic treatment optimisation is growing overall. Uwe Reinhard is frequently cited [8] for his comment referring to Alfred E. Neuman's Cosmic Law Of Health Care stating that: „Every dollar of health spending = Someone else's dollar of health care income, including fraud, waste and abuse.“ [9]

Currently there are only very limited research studies, let alone academic publications, which look at business thinking in medical management not from a hospital perspective, but from the viewpoint of owner-run practices with a limited number of up to 15 members of

[1] S. Kock, 2012, p. 113; Schreiber, 2015
[2] Freie Universität Berlin, 2018
[3] Behringer et al., 2018, p. 253
[4] Geiß & Raich, 2018, p. 135; Guse, 2018, p. 136
[5] H Börkircher & Cox, 2004, p. 24
[6] Schreiber, 2015, p. 15
[7] Pütz et al., 2018, p. 39
[8] e.g.: Currie et al., 2019
[9] Reinhardt, 2009, p. 4

staff. This research makes a first attempt to closing this gap, however does not explicitly limit its research to this practice size. Nevertheless, let it be both in the interviews and the survey, 95% of all research subjects fall into this category. Given the scope of the study, it was decided to limit the research for better result validation to a single field of medical practice, being oral health care (OHC). Further, the study's scope does not allow to look at all medical systems in Europe, let alone worldwide. For practical reasons it was decided to limit the study to primarily Germany and make some first over-regional validation attempts with interviews, conducted with a limited number of professionals in Hungary. Main focus, however, is Germany, the comparison to and with Hungary was primarily a first attempt to understand if business comprehension and its limitations are limited geographically to Germany, the German system and / or the local culture, or if the limited business thinking is rather linked to the medical profession as such. Due to language and funding barriers it was not possible to pursue the study objectives to the same extent in Hungary as achieved in Germany.

Objective	Description
Objective 1:	•Understand the stakeholders in HC and investigate existing publications on business thinking in HC and OHC.
Objective 2:	•Introduction of HC systems in Germany and Hungary.
Objective 3:	•Secondary data analysis of HC and OHC in Germany and Hungary.
Objective 4:	•Primary qualitative pre-test research to understand the current extent of business thinking in the market today and develop a quantiative questionnaire.
Objective 5:	•Primary quantitative research with surveys to draw conclusions about the extent of business thinking in the market and its impacts on the quantifiable success of OH practices today.
Objective 6:	•Primary qualitative post-test research with a limited number of German practitioners to understand some paradox results.
Objective 7:	•Develop solutions to fill the practitioners business knowledge gap and make a first test of these solutions in a focus group.

Figure 1: Objectives of the research

The study met a range of objectives as visualized in Figure 1 (also in Appendix A). First, the field was looked at via understanding the stakeholders in HC and by analysing existing publications which were primarily of business nature such as management guides. Second the HC systems in Germany and Hungary, including their historical background, were introduced. Then quantitative numbers in the field of HC and where possible also OHC, were investigated

as much for Germany as for Hungary. After having done so, fourth objective was interviewing practitioners in the two countries that run own clinics and to talk to clinic staff and market specialists – also in focus groups. Aim here was to fully understand the business requirements – or better said the business knowledge gap practitioners face and to develop a survey that would contain the best questions for understanding. As a sixth step, some of the resulting paradoxes that were either very different in survey and interview or just seemed contradicting to expectations, were tested in a last round of interviews. Out of the above, the research developed a range of potential solutions to the mentioned problem, alias knowledge gap, as much for university studies, active practitioners aiming to pursue a successful career with an own practice, consultants working in the field and the providers of additional teaching programs aiming to train practitioners and their teams that were discussed in a focus group.

2. Health Care Fundamentals and Oral Health Care Management

This chapter primarily looks at existing publications in the field of HC and OHC management and summarizes existing concepts. This serves for grounding conclusions also on existing publications and compare existing concepts with the results derived as much from secondary as from primary research at a later stage throughout this study.

2.1. Health Care Defined

First and foremost, in order to describe the HC systems, a definition of “HC” and or the “HC system” is required that applies for the purpose of this research study. It shall here be defined as the individual and personal care by medical and allied health professions. It is understood as the interactive system of different entities that offer, organise and finance HC services. Due to the scope of this paper and its specialisation on ambulant OHC services the overall framework of HC provision is only slightly touched and not discussed in detail. Specific sections and structures in overall HC [10] are also not discussed any further.

2.2. Stakeholders in Health Care

HC systems in general have four stakeholders: the service recipient, the service provider, the service financier and the system management. The service recipient is the patient and mostly the insured person (exemption kids). The service provider refers to the practitioner or specialist and is the one offering the treatment to the patient. The service recipient in case there is some kind of insurance or organized care does not pay for the treatment. Additional care services such as surgery by more experienced practitioners typically require additional payment by the patient. However, the primary connection between service recipient and service provider is provision of care. The third stakeholder is the service financier, so the health care insurance or the government. The primary connection between the financier and the service recipient is some kind of contractual agreement. The connection between the financier and the provider is payment. In order to allow for a better understanding, a visualisation of the stakeholders is shown in Figure 2. Drug manufacturers and other indirectly linked stakeholders were not integrated as to focus on the main players.

[10] as defined by Rödder & Schütte, 2013, pp. 2, 8, 9

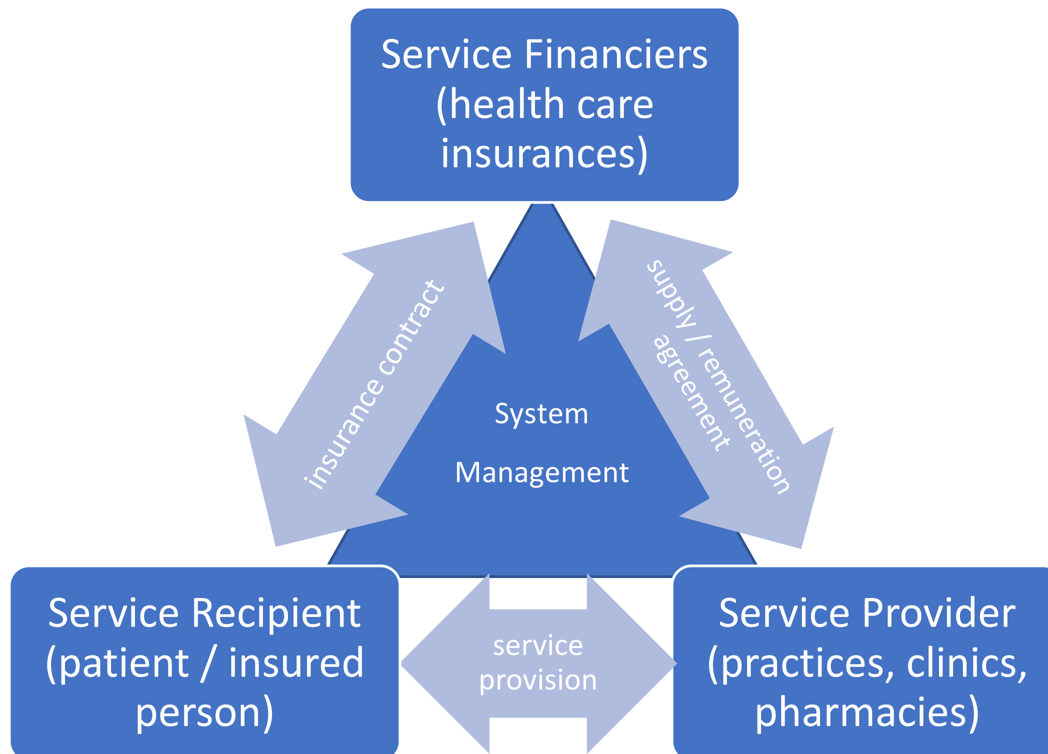

Figure 2: Stakeholder Relationships in Health Care

11

2.3. Existing Oral Health Care Management Publications

In this section existing publications about practice management were investigated. Some of the references used in the following paragraphs come from hospital management. Overall the literature on HC management for owner-run practices is very limited – the specialized field of OHC management literature for small practices is almost uncovered academically. There is a range of business advice books, but only a very limited number of academic books, let alone journal articles, in that specific field. The mentioned business advice handbooks are often more marketing tools of advisory companies [12]. The "Sparkasse", a network of bank groups mostly under municipal sponsorship in Germany, under whose name different economic branches are analysed regularly state, that there still is significant space for economic improvement in the field of OHC [13]. The mentioned unexploited potential of OHC, from a business perspective, might come from two aspects: First, that medical

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[11] Identical copy from: Rödder & Schütte, 2013, p. 5 who adapted from: Busse et al., 2010, p. 2, original seen, reference to adapted version

[12] e.g. J. Kock, 2015, pp. 39–70, a book chapter published in a book written by 8 staff members of one HC consulting agency

[13] Jankowski, 2017, p. 16

professionals in Germany are typically not receiving any business training in their education whatsoever [14], and second that the field is only open to investors via politically undesired detours (see section 3.1.1 and subsections for explanation of systematic developments and how the field can be entered by investors). In the literature a range of aspects was found to be crucial in the success of a practice. Figure 3 was developed to show the business success factors found in existing publications. The following subsections go through every point, shown in the figure, one by one and explains the position in the publications.

Figure 3: Practice Management in Literature

[15]

[14] Geiß & Raich, 2018, p. 135

[15] own development main source: Nowak, 2008, pp. 14-66, combined from: Bartha et al., 2011; Behringer et al., 2018; H Börkircher & Cox, 2004; Breidenich & Rennhak, 2015; Däumler & Hotze, 2017; Davidenko, 2019a; 2019b; Demuth, 2019; Esders, 2007; Ewerdwalbesloh, 2018; Franz & Seidl, 2018; Frodl, 2012; Gmeiner, 2008; Grzibek, 2013; Havers, 2016; Held & Bergtholdt, 2018; Henrici, 2012; Hungenberg, 2014; Hungenberg & Wulf, 2015; Kinzelmann, 2017; Klusen, 2011; Koch, 2018; J. Kock, 2015; S. Kock, 2012; S. F. Kock, 2019a; 2019b; Kollwitz, 2013; Korkisch, 2019b; 2019a; Kursatzky, 2012; Lehmeier, 2004; Maurer, 2012; Meßmer, 2015; Pietsch, 2004; Rödder & Schütte, 2013; Staar et al., 2018; Stefanowsky, 2019b; 2019a; Straesser, 2010; Sydow & Windeler, 2001; Ueberschär & Demuth, 2015; Welge et al., 2017

2.3.1. Planning, Strategies and Goals

The existing publications agree, that well-structured and strategic business planning is a major requirement for profitable practice management [16]. According to Nowak [17] who actually focuses on general practitioner practices, the owner-manager needs to go through a six step process to run a clinic successfully. The suggested steps are first the design of a practice image, second and third the development of practice goals and strategies, fourth, planning, fifth, steering and implementation of the developed strategies and most importantly controlling and measurement in order to know and be aware of the results and how these compare to the initially set goals [18]. Business planning is seen as a significant part of strategic management and is crucial to profitable businesses, not only in HC [19]. Nowak's [20] translation of strategic planning and approaching the business side of a practice could be considered as suitable for the standard size of a practice. If, however, multiple branches are being planned or the main location is supposed to be grown significantly with a number of employed doctors, then much more strategic thinking and planning is required. Given the expected growth in competitive thinking [21], however, it might be a question if such limited thinking will still be enough, even at smaller size units. In such occasions it might be wise not to look for business guidance applied to the health care field, but learn about strategic management approaches overall [22] or get respective advice.

Owner-run practices should – similar to bigger companies – formulate goals and define the strategic vision of their business in order to evaluate whether the company is on the right track [23]. Lack of such action may result in defective strategic orientation due to the lack of market oversight and the misjudgement of market changes [24]. One strategic approach is to clearly calculate minimum revenue goals for company viability and track their completion on a regular base in accordance with the charging of delivered services. According to the experience of a consulting company some medical practitioners ignore a yearly revenue

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[16] Lehmeier, 2004, p. 5 f.
[17] 2008, pp. 14–66
[18] Henrici, 2012, pp. 96–98
[19] Hungenberg, 2014, pp. 50, 51; Hungenberg & Wulf, 2015, p. 379 ff.; Johnson et al., 2011, p. 414; Kursatzky, 2012, p. 44; Welge et al., 2017, p. 207
[20] 2008, pp. 14–21
[21] Jankowski, 2017
[22] Sydow & Windeler, 2001, p. 134
[23] Ueberschär & Demuth, 2015, p. 115 f.
[24] S. Kock, 2012, p. 115

potential of up to 40k Euros. In OHC this number, according to their research and experience, can go up to 80k Euros [25]. Continuous market observation and some agility of the owner is required to succeed in the long term [26].

2.3.2. High Quality Health Care and Quality Management

Doctors by education are well educated for delivering HC but are not trained entrepreneurs when at the stage of opening a practice [27]. Further, for delivering good patient care, there are training manuals that allow for structuring the processes in a clinic with clear documentation and detailed description of task implementation by all operative parties [28], thus, quality care is achievable. Successful treatments today are seen as part of the success-factors in a clinic [29]. Since the liberalisation of the HWG, it is allowed to advertise with the successful completion of treatments [30]. Thus, high quality HC does not only increase the quantity of word of mouth (WOM) recommendations, but today can actively be used for marketing and to increase the quantity of treated patients and thus the revenue of the clinic. In addition, there is a whole number of online assessment tools that allow to give feedback on the services performed – either by a specific doctor – or in a certain clinic. Clinicians that actively work with the feedback on such platforms state that about 60% of their patients come due to digital recommendations [31]. The quality of care and thus the shared patient feedback on such platforms can have a severe impact on the quantifiable results of the clinic, no matter its field of specialisation [32] Competitors may also consider to give negative feedback, which could have a devastating impact [33].

2.3.3. Clinic Organisation and Controlling

Controlling is a wide field. Mostly controlling refers to the monetary and financial controlling that is being pursued in the managerial process of supervising bookkeeping and

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[25] S. Kock, 2012, p. 126
[26] S. Kock, 2012, p. 115 f.
[27] Grzibek, 2013, p. 20
[28] e.g.: Esders, 2007: a guidebook with suggestions and guidelines for the creation of standard operating procedures
[29] Ewerdwalbesloh, 2018, p. 2f.
[30] Kollwitz, 2013
[31] Franz & Seidl, 2018, p. 46
[32] Däumler & Hotze, 2017, p. 150; Franz & Seidl, 2018, p. 46; Koch, 2018, p. 429
[33] Däumler & Hotze, 2017, p. 153

numbers whilst running a company. However – depending on definition – controlling can be seen as a much wider field. At the example of health care businesses, [34] [35] has divided controlling into a range of different parts that all play a major role when running an HC business (see Figure 4). Whether all of the shown fields really belong to controlling and if they all apply to a practice of a general practitioner or a dentist is to be exploited in the subsequent paragraphs.

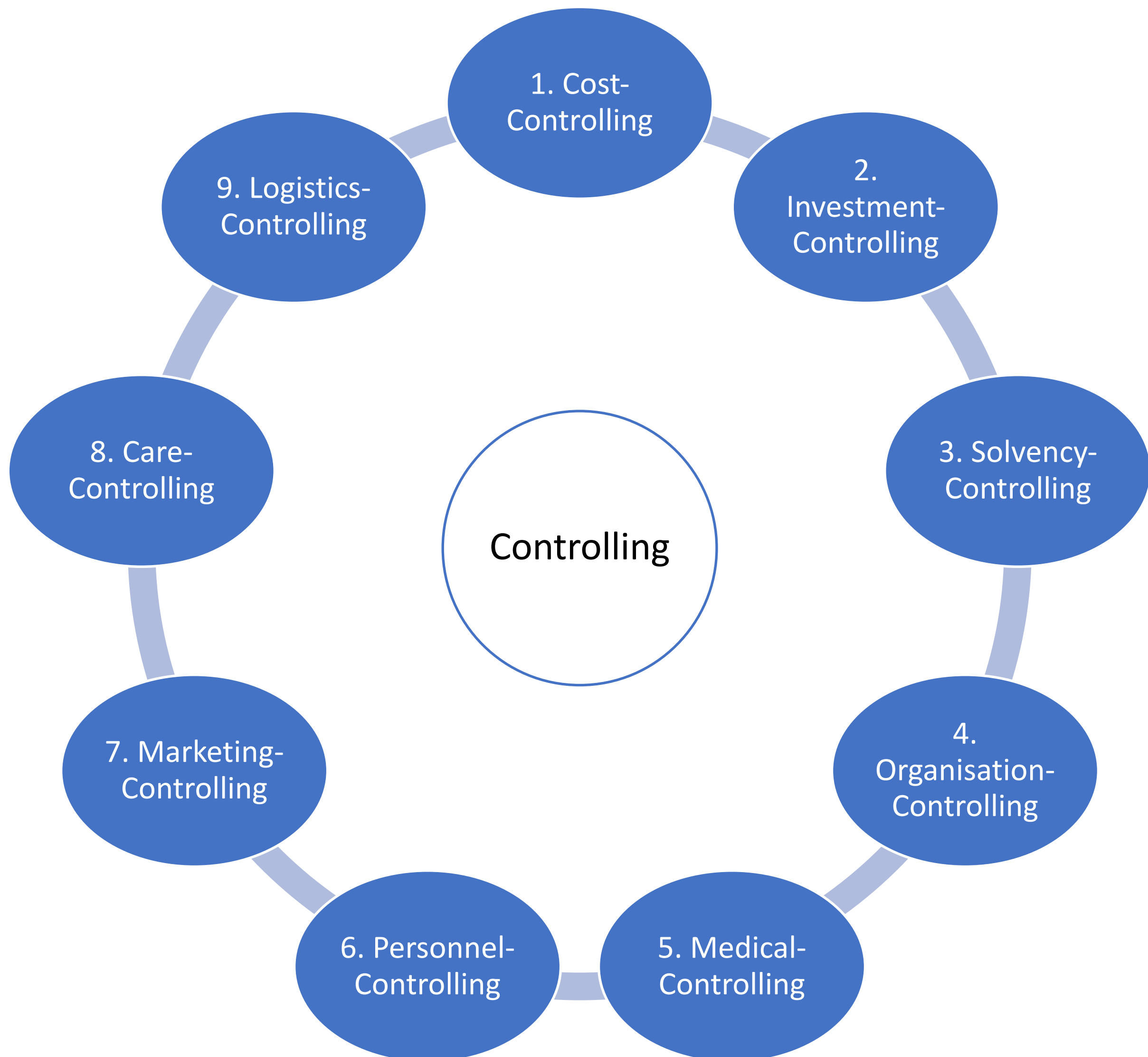

Figure 4: The Fields of Controlling in Health Care

[36]

[34] Frodl, 2012, pp. 77–136
[35] 2012
[36] adapted from Frodl, 2012, pp. 77–136

One of the major issues doctors face, are their limited accounting procedures [37] which do not allow for proper *1. cost controlling* (Figure 4) Bookkeeping / accounting information is usually several months delayed [38], does not use clear accounts, is by definition difficult to be understood and in addition usually not presented in a way for the decision-taker (medical practitioner) to understand and process the relevant information [39]. Modern advice literature recommends that practitioners, willing to open and run their own facilities, shall participate in extensive business training, in order to face and stand up to the challenges, they may face when running their own company [40]. If costs are not properly understood and controlled, no *2. investment controlling* or *3. solvency controlling* (Figure 4) for the company can be pursued and thus wrong decisions can be a result. Economical changes of the circumstances often are not realized [41]. Consequently the living standard of the owner-managers are not adapted to the changed circumstances and lead to over-withdrawals that put the company at further risk [42]. Accounting and controlling procedures, even by doctors in crisis, are not seen as a necessary or useful tool in strategic business planning, but much rather as an outsourceable “necessary evil” that does not show relevant information [43]. However, management advice literature agrees that clear, well-understood and properly implemented controlling procedures are a requirement for successful practice management [44] and thus should be implemented more frequently [45]. Significant potential for the improvement of clinic *4. organisation* and respectively adequate *controlling* (Figure 4) procedures is in the optimisation of daily processes and in fact the practice infrastructure as such [46]. Especially when optimizing the invoicing of services to the publicly health insured or the HCI provider respectively, remunerations can be optimized and thus increased. [47]. Further profit potential in medical practices – this is not applicable to OHC – can be found in the so called IGeL-Leistungen, a kind of service financially supported by the patient rather than fully paid by the insurance [48].

[37] J. Kock, 2015, pp. 50–54
[38] S. Kock, 2012, p. 123; Meßmer, 2015
[39] J. Kock, 2015, p. 53
[40] Grzibek, 2013, p. 21
[41] H Börkircher, 2004, p. 149ff.; Lehmeier, 2004, pp. 6, 8
[42] Meßmer, 2015
[43] S. Kock, 2012, p. 122
[44] Ewerdwalbesloh, 2018, p. 24f.; Frodl, 2012, p. 23
[45] Ueberschär & Demuth, 2015, p. 138
[46] Ewerdwalbesloh, 2018, p. 4f.
[47] Ewerdwalbesloh, 2018, pp. 8–14, 91
[48] Ewerdwalbesloh, 2018, p. 15f.

Covering and explaining these services in detail would – since not being applicable to OHC – exceed the limitations of this study. In OHC there is something similar being the non-contractual services (NCS). NCS refers to services that are not paid for by the HCI, but the patient. The quality of appointment planning also has a significant impact on patient movement in the clinic, waiting times and thus patient satisfaction overall [49]. *5. Medical controlling* (Figure 4) refers to the standards of medical care provided by a practitioner and the control of the quality of the service, especially when more practitioners are collaborating and offering their services in one system. The impact of medical quality on the entire company is explained in section 2.3.2. *6. Personnel controlling* (Figure 4) is being explained in section 2.3.4 in which general HR and leadership topic in the context of practices are being discussed and elaborated upon. *7. Marketing controlling* (Figure 4) basically refers to the measurement of results of any marketing endeavours pursued by the company. Here, however, it is to be stated that it is particularly difficult to measure the tangible results of marketing activities. Which marketing activities can be pursued and how the market / patient is to be understood before selecting the respective activity / strategy is explained in section 2.3.6. *8. Care controlling* (Figure 4) is not applicable to normal practitioners that do not offer outpatient care. Only example in the case of OHCs are surgeons, providing ambulant care services straight after surgery, whose quality is to be maintained and measured. *9. Logistics controlling* (Figure 4) is only a field in hospitals, bigger HCCs or large clinics with several owners. As a consequence, it will not be covered in this paper.

Whether all aspects shown in the figure and discussed above really are part of controlling can be discussed. Nevertheless, the model is presented here in order to show that – also in HC – a range of controlling procedures can be completely incorporated in the entire business model. If the model is implemented, controlling oversees all business functions and turns into a properly reported tool, allowing for a fast way to find parts of the company that challenge the ongoing success of the business.

[49] Havers, 2016, p. 108; Nowak, 2008, p. 133

2.3.4. Human Resources Management in the Oral Health Practice

The Owner Manager as a Leader

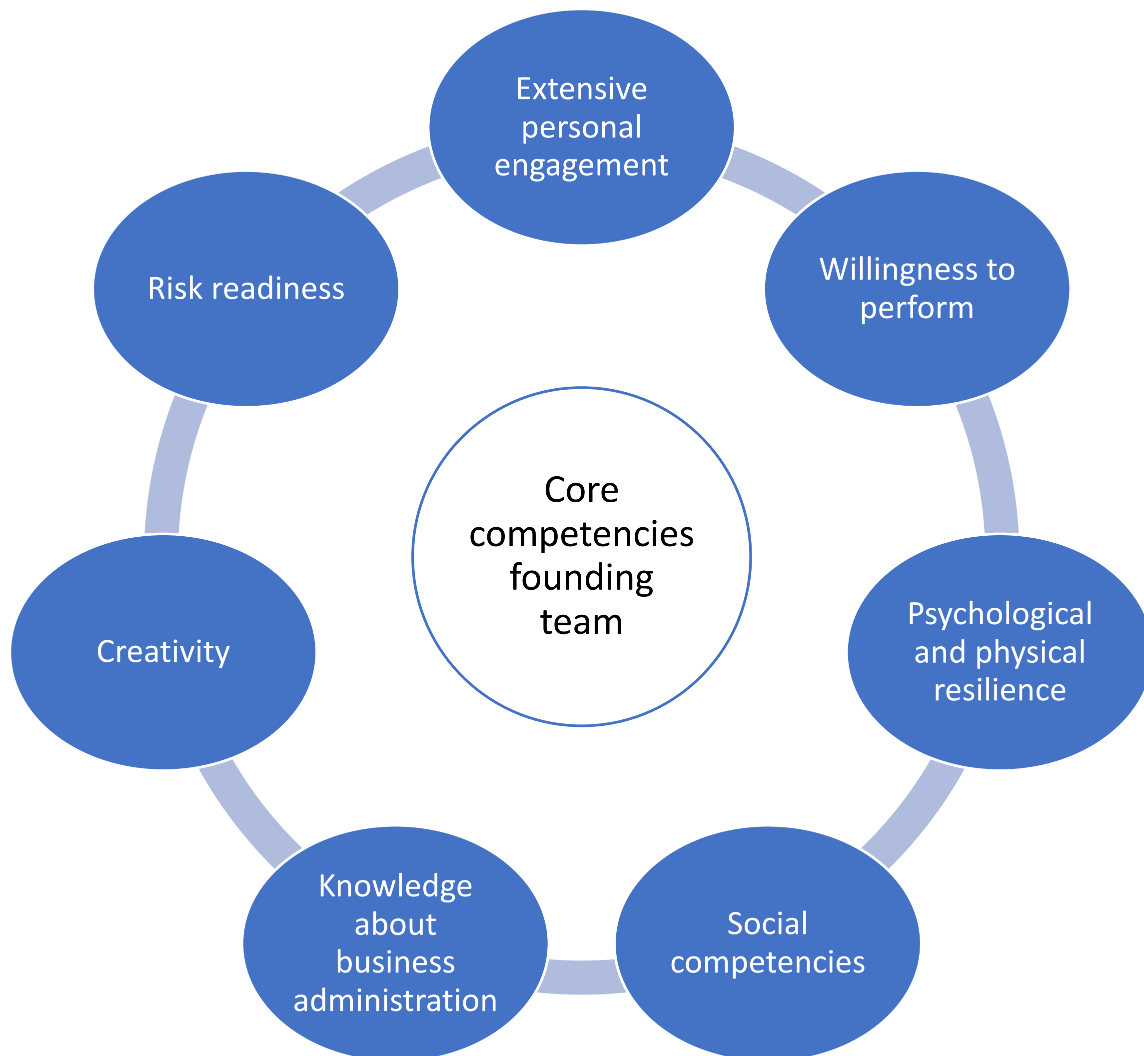

Figure 5: Core Competencies Founding Team

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Success in HC practices – as in any company – is created by people. Some literature states, that staff is the success-factor of them all [51]. Often doctors face major challenges due to lacking management [52] and leadership [53], qualifications and because of deficits in physical and or mental capabilities [54]. “Kock and Voeste Existenzsicherung für die Heilberufe GmbH” in Berlin, however, see in their consulting work, that doctors don’t even question their

[50] Grzibek, 2013, p. 20f.
[51] Ueberschär & Demuth, 2015, pp. 139, 148
[52] S. Kock, 2012, p. 120
[53] Havers, 2016, p. 84ff.; Nowak, 2008, p. 162
[54] S. Kock, 2012, p. 120

management capabilities and blame anything but their competencies [55]. This by interpretation means that doctors do value their technical education and capabilities so high, that other capabilities such as staff leadership are – according to the publisher - overseen in their values. However, it can also be found in advisory literature for clinic foundations that the founding team for a practice needs to have a certain set of skills and qualifications. Grzibek [56] mentions the points to be fundamental for the founding team next to the obvious medical capabilities and willingness for continuous training:

Depending on the size of the clinic, the duties of the founder or the founding team are also adapting. Whereas – in a smaller team – the founder is primarily caring for patients, he may – in a bigger team – be only or primarily be involved with handling the business-side or working on, much rather than in the company. The next two sections explain the major differences that were found.

Structures for Owner-run Practices

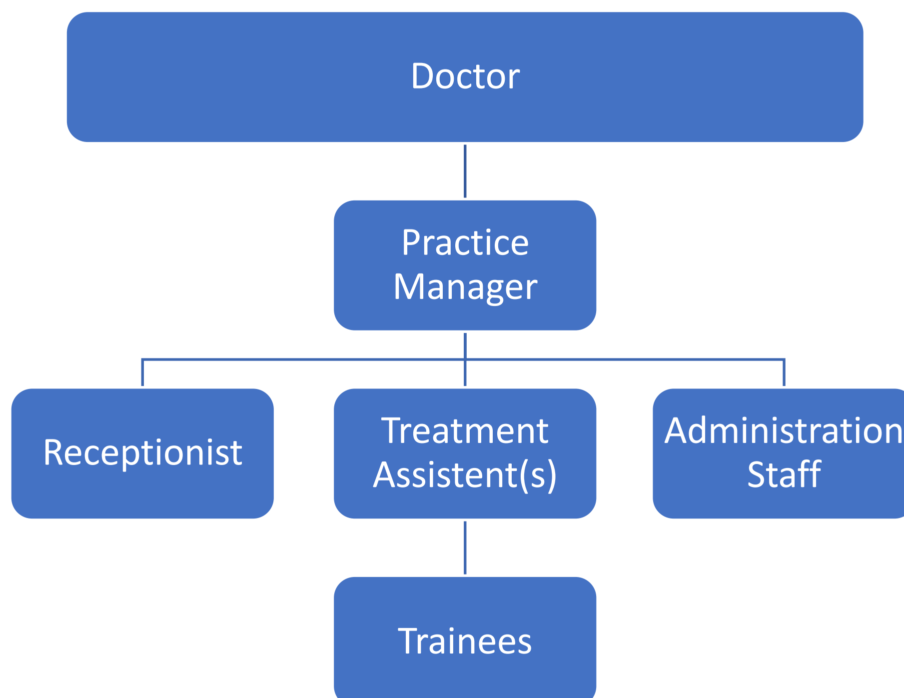

Figure 6: Structural Organisation of a Model Medical Practice

57

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[55] S. Kock, 2012, p. 120
[56] 2013, p. 20f.
[57] Nowak, 2008, p. 30

Nowak [58] suggests a staffing structure (see Figure 6) for the practitioner's practice. However, such a structure only can be seen as suitable for clinics at a very limited size and for doctors that do not think about their company as a business but rather a self-employment. The visualized structure is based on one practitioner and no other physicians.

Structures for Bigger Practices and Beyond

Even without being organized as HCC, doctors can employ other practitioners and be organised as a group practice. A clinic owned by as little as two doctors can be run by six plus their holiday replacements [59] – the holiday replacement alone would be another half-time employee at a German standard holiday rate of 29 days [60] – meaning that a clinic owned by two doctors can easily be an enterprise much rather than a self-employment. As a consequence, other structural organisation, different to the one presented before, (see Figure 6) is required. The larger in fact an outpatient practice becomes, the more it turns into an enterprise and structural approaches are required. Medical controlling [61] – just to name one example – is primarily used in hospitals and is the connecting mean between administration and medical operations – a tool that as such could also be of advantage and used in larger practices. Appendix B visualizes how medium sized clinics (only blue) and larger clinics (orange and blue) could be organized in order to fully exploit the economic potential. It was decided to place this visualization in the appendix as no further reference has been made to this potential structure. At very large structures or if ownership is different, further adaptation is also required.

Recruitment of the Right Human Resources and Handing over Duties

Finding and choosing the right personnel is a challenge in any field of business. It is particularly difficult in HC, since the amount of people to choose in between is very limited, given the very high qualifications, staff members are required to hold. General practitioners as much as dentists go through years of education – if they hold additional specialisations such as focusing exclusively on orthodontist care – then the required specialist training is even more particular and takes an additional few years. No alternative job entry is possible since

[58] 2008, p. 30
[59] replacement for employed doctors initially not planned, now legalized: Schiller, 2015, p. 101
[60] Frankfurt Allgemeine Zeitung, 2018
[61] Frodl, 2012, pp. 77–81

the approbation, that is linked to a major list of challenges, is a prerequisite for the job [62]. In order to run an own practice, working in employment, the so called preparation time (Vorbereitungszeit) for a period of two years is required, in order to get settlement permit by the association of dentists [63] . Orthodontists and other OH specialists need to meet further requirements [64]. Focus in the education lays fully in the medical training and absolutely not in business education. In the hospital sector the creation of entrepreneurial training programs, coaching and leadership education is a growing field of importance [65]. No literature has been found that emphasizes the importance of the introduction of entrepreneurially driven leadership programs in practices, however, the introduction of coaching, to grow the success of practices also for smaller enterprises in the medical sector, is important [66]. And it is not only doctors but also assistants that have very special training. Education depending on the country takes several years.

Management advice publications suggest the use of human resources (HR) management and recruitment techniques including the development of job profiles and very detailed preparation of job interviews, in order to find the matching personnel [67]. If for example a specific language is required to communicate with the customer base, then this has to be made clear already in the job profile, in order not to be forgotten or not to waste time with a big amount of unqualified applications and applicants [68]. As soon as the right applicant is chosen, a clear and written set of tasks is required in order to make the applicant be part of the team and avoid discussions about misunderstood responsibilities. If everything is clearly communicated – at best in writing with tasks, authorities, responsibilities and standard operating procedures – miscommunication can be minimized [69]. Making existing team members responsible for the training and handing them checklists in accordance with corporate actions and identity, makes sure that new members of staff are integrated fast, know their role in the team and act in accordance with the company guidelines [70].

[62] Bundesministerium der Justiz und für Verbraucherschutz [Federal Ministery of Justice and for Consumer Protection], 2017
[63] Zulassungsverordnung für Vertragszahnärzte (Zahnärzte-ZV), 2019
[64] dents.de, 2019
[65] Staar et al., 2018, p. 116 f.
[66] Havers, 2016, p. 90
[67] Henrici, 2012, pp. 137–141
[68] S. F. Kock, 2019b, pp. 162–164
[69] Bartha et al., 2011, pp. 73–117
[70] Bartha et al., 2011, pp. 78–85

Communication Techniques and Coaching Culture

Communication techniques also belong to the skills that owner-managers and eventually their employed clinic-managers – often assistants that go through specific training – have to be educated in communication and can significantly improve the success of a clinic. Doctors are not trained in professional communication but have to handle a range of different communicational issues such as development conversations [71]; appraisal conversations including critique [72], praise [73] and difficult issues [74]; delegation conversations [75]; salary discussions [76]; dismissal talks [77] and job interviews [78]. Making sure that a feedback culture [79] becomes part of the company may avoid some of the communicational challenges mentioned above.

As important as it may be, the art of applying leadership communication strategies – a common topic in business administration [80]. – can barely be found in the literature focusing on HC practices. One such publication comes from a member of the study program "Betriebswirt der Zahnmedizin" (Business Administration for Dentistry) and clearly translates the techniques of classical management communication to the level of communication, required in a practice and understandable to a practitioner and or his employees [81]. The publication clearly states that the use of wrong or inadequate communication techniques leads to revenue downturn – or respectively not the full exploitation of revenue potential. Goal-oriented staff, communication with feedback, result orientation and plans for how to solve issues and implement improvements is required [82]. A totally new publication translates the sensible topic of "delegation" into an applicable guide for practitioners [83]. Delegation can be seen as an absolute requirement in the growing complexity of business in the HC field [84]. It

[71] Davidenko, 2019b, pp. 18–19
[72] S. F. Kock, 2019a, p. 36
[73] Bartha et al., 2011, p. 99; Stefanowsky, 2019a, pp. 68–70
[74] Davidenko, 2019a, pp. 124–130, 132; Stefanowsky, 2019b, p. 85
[75] Korkisch, 2019a, pp. 81–82
[76] Korkisch, 2019b, pp. 105–106
[77] S. F. Kock, 2019c, pp. 135–156
[78] S. F. Kock, 2019b, pp. 165–177
[79] Demuth, 2019, pp. 183–186
[80] Lewis, 2019, p. 57
[81] Kinzelmann, 2017
[82] Pietsch, 2004, pp. 62–65
[83] Korkisch, 2019a, pp. 81–82
[84] Henrici, 2012, p. 113f.

can be said that the implementation of coaching culture is not only a trend in general HR [85], but is a topic by now also handled in publications about HC practices [86] – thus also finds first applications in the field of HC.

Measure Staff Happiness and Create Identification with the Business

It is recommendable to not only make questionnaires to measure patient happiness and improve marketing or WOM recommendations, but also to find out more about staff satisfaction and eventually adapt corporate benefits or develop further staff retainment techniques according to the specific desires of the team [87]. Performance incentives can also be considered as important success drivers [88]. Such questionnaires may also support the development of performance incentives [89]. If, for example, massage is something that most members of staff desire for, then why not make a massage voucher to be the award of the next key performance indicator accomplishment [90]. However, the advantages in staff motivation are often not fully understood by doctors and as a consequence only used in a very limited number of practices in Germany [91].

Employer branding is a topic of growing importance. Successful employer branding makes use of company parties, trips for the entire staff team, birthday gifts and birthday singing for every team member and similar techniques [92]. Doing so makes sure, that the team identifies with the company and that the practice gets its own and specific company culture [93]. This does not only mean that the best members of staff most likely will stay for very long, but also has the consequence that the company becomes a desirable employer and will face less challenges in growing its team size than other practices that are known for mistreating staff.

[85] HCI Research, 2014, p. 8
[86] Demuth, 2019, pp. 183–186
[87] Nowak, 2008, p. 43 f.
[88] Frodl, 2012, pp. 5, 20
[89] Nowak, 2008, p. 45
[90] Henrici, 2012, pp. 54–62
[91] J. Kock, 2015, pp. 55–56
[92] Havers, 2016, p. 90
[93] Henrici, 2012, pp. 57, 70

2.3.5. Staff Training

In order to deliver outstanding patient care and run a profitable practice, it is definitely of major advantage to offer continuous training to all members of staff – practitioners and assistants alike [94]. Such training may include medical training in order to deliver successful treatments, however shall also include topics such as communication training for all members of staff [95]. Successful communication may not only improve the day to day communication issues between different members of staff, but also allow for a better communication with patients and a full implementation of the corporate identity (CI), which facilitates the clinic's success [96]. Communication with patients includes the handling of complaints but also the sale of additional services which can and should be trained. The use of the matching communicative tools will improve the purchase of additional services and thus the economical position of the clinic [97]. Since the effects of training positively impact the success of a practice, any costs for training should be covered for by the employer. This ensures that staff focuses on learning and using the learnings and is not overwhelmed by training costs without return. Contractual agreements about the employee's obligation to cover training expenditure in case of leaving the job within an agreed time frame after training completing are, however, a valid option [98].

2.3.6. Patient Orientation and Marketing

Only very few small and medium-sized companies in healing professions invest in marketing because WOM is seen as the way to get patients. Many doctors even still believe that marketing for medical practitioners is still forbidden [99]. However, marketing in medical professions is not prohibited, it just is regulated by the "Heilmittelwerbegesetz" [100]. With the increase of competition [101], marketing in practice management publications is actually seen as a simple and reasonable tool to increase the number of patients [102]. And in fact it does not

[94] Frank & Gerlach, 2005, pp. 12–15
[95] Nowak, 2008, p. 138 ff.
[96] Maurer, 2012, pp. 72–76
[97] Kinzelmann, 2017
[98] Bartha et al., 2011, pp. 257–262
[99] S. Kock, 2013
[100] Schmitz & Büll, 2009b, pp. 132–135
[101] H Börkircher & Cox, 2004, p. 24; Staar et al., 2018, pp. 95, 96, 98
[102] Ewerdwalbesloh, 2018, pp. 5–8; J. Kock, 2015, pp. 57–59; Ueberschär & Demuth, 2015, pp. 149–161

even need to be expensive [103], listening to patients e.g. via surveys can already be a valid first step and help the patient to feel more comfortable and thus increase WOM [104]. Schmitz and Büll developed a comprehensive list of what is allowed and not allowed [105]. However, such works need to be constantly updated, as laws are under continuous change – as mentioned of before, this specific law was significantly liberalized in 2012 [106].

Corporate Identity

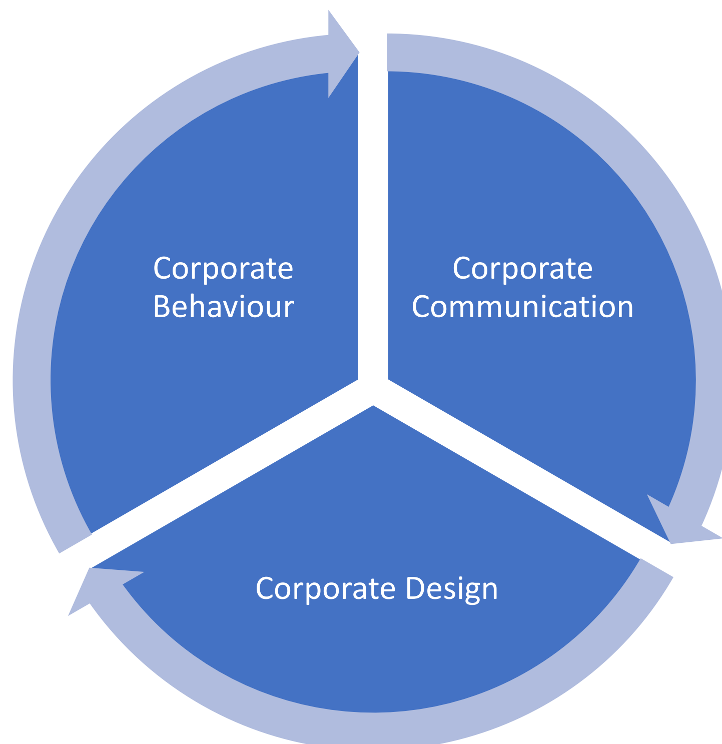

Figure 7: Corporate Identity

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Other marketing literature for doctors next to all examples and explanations, primarily stresses the importance of a strong CI and a constant image, as continuity and consistency would be the most important for marketing success and a cost-efficient image creation [108]. The development of an image, that truly communicates the identity of the practice, is required. This image includes aspects such as service, the presentation of the practice,

[103] Gmeiner, 2008, entire publication
[104] Havers, 2016, pp. 39, 47f.
[105] 2009a, pp. 140–147
[106] S. Kock, 2013
[107] Maurer, 2012, p. 74
[108] Gmeiner, 2008, p. 103f.

communication procedures amongst personal and with patients, competency of practitioners, offered products and services and morals of the serving team. However, the image creation is not only an internal process influenced and created by the company. It is also a guided by competition, media, opinion leaders and happenings on the market. Existing opinions and prejudices as well as lack of information – let it be internally or externally – also play a major role [109].

Marketing Communication – The Patient as a Customer

A growing number of books is looking at the patient as a customer [110]. Some research went further investigating whether the patient wants to stay the irresponsible victim of his illness about whose head the practitioner decides, or if the patient wants to actively take part in decision-making over his treatment. Results of the study have shown, that the latter is the case, meaning that a significant shift of the patient's demands has changed the way to handle the patient and deliver adequate communication and care to the deciding and responsible customer-patient [111]. The best way to know about the patient and his desires, is to regularly lay out questionnaires that allow the patient to share his values and his perception on the quality of the delivered services. The responsible patient actively wants to participate in the decision-making process and – prior to visiting the doctor – is informing himself, in order to be aware of the potential illnesses he may suffer from and the respective treatments he may deserve. Prior to visiting the practitioner, he informs himself and finds out who the specialist in the field is. The image that influences the patient's gut feeling can actively be influenced by the right marketing and communication strategy [112]. It is also of major importance to develop and clearly follow a procedure for handling complaints, including the archiving of the outcomes thereof, as to ensure to be able to proof the handling of the complaints in case of necessity [113] and to be able to show other patients that even in case of difficulty the patient is the centre of attention and treated well.

[109] Nemec, 2004, p. 95 f.
[110] Kliemt, 2011, p. 17; Kray, 2011, pp. 6, 7
[111] Klusen, 2011, p. 156 f.
[112] Breidenich & Rennhak, 2015, p. 123 f.
[113] Nowak, 2008, p. 136 ff.

The Matching Marketing Strategy

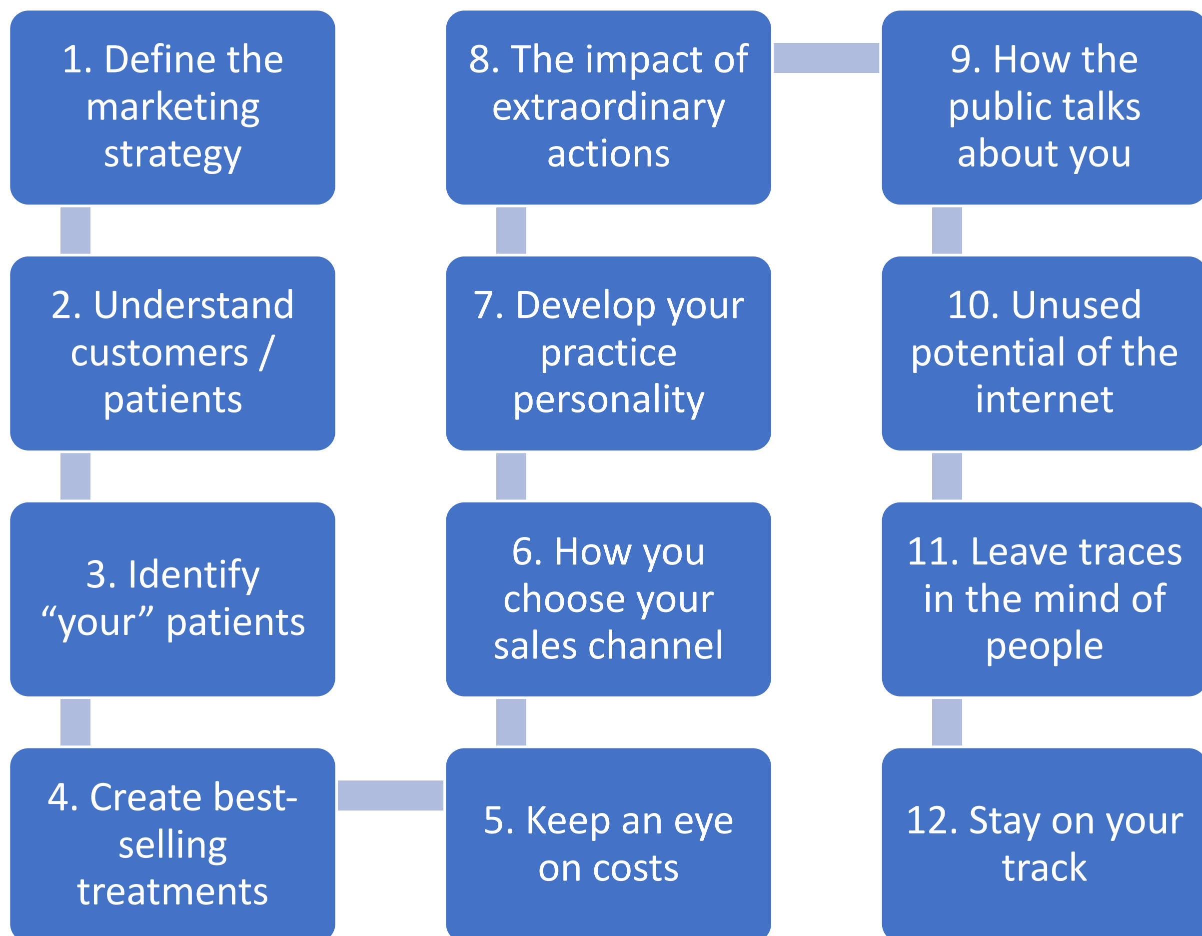

Figure 8: The 12-Step Marketing Process for Dentists

[114]

Straesser [115] in her book addressing dentists, suggests structuring marketing alongside a 12 step process as visualized in Figure 8. However, looking at the book from a business perspective, the work is more than just a marketing guide. It is meeting the exact need of this very specific freelance professional. Going through this process is a life-coaching model, including recommendations such as aligning clinic goals to lifestyle requirements and the personal mindset. Many practices today have the potential to be exploited differently, however, any strategy must be in accordance with the personal goals of the founder / owner and if these personal goals are met, including the owner's perception of risk, then eventually limited or no marketing is required as growth may not be desirable.

[114] Straesser, 2010
[115] 2010

2.3.7. Cooperation Models

Any forms of cooperation models with doctors, share of ownership, share of treatment concession or alike, are also normally either ignored or not fully exploited in owner-run practices, [116] even though such cooperation has been of growing significance in recent years [117]. Looking at the industry overall (without the specific focus on ambulant care), the HC sector is developing towards a highly specialised and complex entity, especially when looking at medical treatments. The possibility of working in form of an HCC improves market positioning, may reduce costs and eventually allows for synergy effects. Improved know-how and an improved financial position are other advantages. Risks, however, include the sharing of existing knowledge, financial and flexibility risks, as well as competition difficulties. The choice for creating HCCs for doctors is much easier from an economical perspective, however, from the viewpoint of soft skills, this choice may be called a much harder one. If the goal is the creation of an interdisciplinary centre, then detailed market research, also of already existing structures and networks in the microeconomic market nearby is of utmost importance. The necessary financial investments, contractual agreements, marketing approaches, sales structures, administrative requirements and the creation of respective legal structures has to be very well-planned and may be connected to a range of challenges that require significant attentiveness. Next to medical competencies, business administration qualifications are a must and include social skills. Well-organized and fully implemented controlling procedures are not only a significant requirement, but are in fact expected to grow in importance in the upcoming years [118]. If such structures are envisioned, full exploitation of the so called "secondary health market", thus direct payer services is highly recommended and its strategic approach form part of the synergy advantages of bigger and interdisciplinary HCCs [119].

Cooperation agreements in OHC can be seen as a major source of revenue. Care homes and also communities for the disabled are only some agreement partners that eventually may boost the economic position of a practitioner [120]. Market observation proves, that cooperation capacities can still be exploited and by far are neither used by all parties nor in all regions [121].

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[116] S. Kock, 2012, p. 133
[117] Rödder & Schütte, 2013
[118] H Börkircher & Cox, 2004, p. 22; Lehmeier, 2004, p. 8
[119] Rödder & Schütte, 2013
[120] Jankowski, 2017, p. 2
[121] Ewerdwalbesloh, 2018, pp. 16–18

2.3.8. Doctors and their Entrepreneurial Skills

The topic of entrepreneurship is only recently a growing issue in the HC sector [122]. Today, entrepreneurial training is offered to staff members in hospitals [123]. Given the growing complexity of the HC market in Germany the Charité in Berlin, has launched a module about Start-up-Entrepreneurship. This is significant, since its primarily addressing HC professionals [124]. Further, an entrepreneurship summit bringing HC professionals, with entrepreneurial ambitions, together has been organized for the first time at the Berlin Charité in 2018 [125]. Active senior doctors that live in secured economic relations [126] are additional players in the field that eventually challenge existing standards and add to the complexity of the modern OHC landscape. Only time will prove whether and to what extent these points – as much the entrepreneurial drive as the change of the landscape – will have an impact, however, the pure existence of such movements shows, that a change of thought is required and in fact already has started in the industry.

2.3.9. Clinic Location and Architectural Arrangements

Prior to the choice of a clinic location it must be clear which services are to be offered at the clinic. Only when pursuing this order, one can make sure to get enough patients with a reasonable marketing effort [127]. Depending on the physical location of the clinic, it may make less or more sense to offer specific treatments, due to the patient infrastructure that exists at this specific location. Further, the architectural organisation of the clinic is of major importance. Depending on the nature of offered services in the location, specific treatment rooms are required. A doctor that plans to serve and attract primarily private patients, or is focusing on HC tourism, may have very different requirements at his property – and also funds – than a specialist addressing primarily the publicly health insured.

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[122] Behringer et al., 2018, p. 243
[123] Staar et al., 2018
[124] Behringer et al., 2018, p. 255
[125] Freie Universität Berlin, 2018
[126] Ewerdwalbesloh, 2018, pp. 19–22
[127] Dumont & Schüller, 2016, p. 22 f.; Nowak, 2008, p. 23

2.3.10. Conclusion for Oral Health Care Management Publications

This chapter has shown that a range of factors influence the success of practitioners. According to some existing publications a range of the addressed aspects is not handled with adequate care – especially and as well if failure is already present. It seems that one way to address this challenge may be to offer practitioners adequate education as to allow them to understand the challenges and difficulties they may face. Whether, however, the here presented comments are true, needs to be tested in research, given that most of the discussed publications are not addressing the right target group and / or are not of academic nature. Looking at practices from a business administration perspective a range of factors (see Figure 3) have a significant impact on the success of a clinic.

2.4. The Valuation of Practices

The quantity of owner-run practices is declining constantly, whereas the average age of practice owners in turn is growing, resulting in a declining value of practices – not to mention that some practices are expected to be closed as no buyer may be found [128]. As a consequence the valuation – also from a business perspective – is getting more complicated; reliability of value estimations – due to constant liberalisation of outpatient care and remuneration – is also shrinking [129]. It seems to be generally accepted and legally supported to define the value of a practice by a combination of its earnings and asset value [130]. The earnings value takes all business aspects into account including the eventually unexploited revenue potential, whereas the asset value focusses on the assets in the practice. Thus, let the valuation be purely earnings based or a combination of assets and earnings, chances are, that the implemented business procedures in the clinic play an important role in the valuation of the business. Part of the value of a clinic also still is the "Vertragsarztsitz" [131], however, since effects of HCCs, that can employ an endless number of doctors [132], are more visible in the market, this value is declining. Since in some cities the care coverage in OHC specialisations goes up to 700% (an as high number could only be noted down in a telephone conversation,

[128] Bridts, 2014, p. 2
[129] Bridts, 2014, pp. 1, 68
[130] Urteil vom 14.12.2011, B 6 KA 39/10 R, 2011, p. 1
[131] Urteil vom 21.2.2017, VIII R 7/14 ECLI:DE:BFH:2017:U.210217.VIIIR7.14.0 [Verdict from February 21st 2017], 2017, p. 1; Urteil vom 14.12.2011, B 6 KA 39/10 R, 2011, p. 1
[132] Armbruster et al., 2018, p. 9

it refers to unpublished internal listings: Bezirkszahnärztekammer Pfalz [Chamber of Dentists District Pfalz], personal communication, August 10, 2018), this should not apply in this specific field of HC. Any valuation based on expected future revenues is particularly challenging, when looking at practices that primarily cooperate with insurances, since remuneration for delivered HC services is constantly fluctuating and changing [133]. In the countryside the National Association of Statutory Health Insurance Dentists warns that there will be a lack of care in the countryside, since countryside practitioners state that their practices are "unsellable" [134].

2.5. Research Gap and Limitations of Existing Practice Management Literature

There is a broad range of existing publications in the field of practice management – as much for general practitioners, other specialists and dentists, however, none of academic nature. It seems that the value of a practice also is linked to some extent to how well practitioners succeed in implementing such business procedures. However, existing publications are not of an academic nature. The validity of results is based on unstructured observation and on experience of individuals. Practically all publications, written for practitioners that run their own practices, are business advice books and are based on personal experiences of the authors. Journal articles in the field are practically inexistent. Authors either tell the story out of the happenings in their own clinic(s) or from their experiences in consulting. To get to valid results a clear methodological foundation, based on a proper business research plan, is required. Future research studies should investigate the field from a truly academic perspective, based on a clear research plan. This study makes a first attempt to narrowing this gap of academic knowledge. Even though some of the mentioned aspects are to some extent similar in SME management, it shall be pointed out here, that HC practices form a very specific and specialized subgroup in the SME sector. The needs and requirements in HC practices is different to the mass of SMEs and rather similar between single practices which validates specialized research in the field of HC practices.

[133] Schnapp & Wigge, 2017, pp. 536–582
[134] Ärzteblatt, 2018

3. Health Care Systems and Numbers in Germany and Hungary

This paper creates a first academic foundation for the academic analysis of success factors in outpatient HC, focusing primarily on OHC. Looking at HC and particularly OHC is very interesting since overall SME literature does not cover for the special requirements of the HC industry – as much industry specific market specifications – as also human requirements of this very specific and highly trained group of professionals. In order to allow for an academic analysis of the success factors, two countries were chosen for further investigations being Germany and Hungary. This section is meant to describe the health care systems (HCSs) of the two mentioned countries as to understand the compositions of these systems and to develop trends that are evolving in these countries. As far as possible and accessible also statistical data was compared. Thus, this chapter is designed to meet objectives two and three (see Appendix A). Due to a language barrier of the researcher and significant changes in German outpatient care, primary focus has been placed on the German HCS. Basic numbers which allow for an understanding about the level of care provision are compared for the two countries. This specification was chosen in order to allow for better comparison between the countries. To allow for the best of understanding and comparison for both countries, statistics were investigated and compared about first the general health, second the outpatient care and third the dental care market. In order to allow for better comparison and understanding of the numbers, mostly – next to absolute values – the number per citizen was used. Since the data chosen for these investigations stems from different institutions, there however is a risk for misinterpretation resulting e.g. from differences in measurement criteria which are expected to be similar if data is coming from one institution only. The numbers that are publicly available are mostly focused on HC in general, nevertheless they give an insight into the happenings and trends in the two countries. To facilitate understanding of the graphs the lines about Hungary are always dotted lines, whereas the lines about Germany always are continuous. Some of the dotted lines are trendlines, if it is explained in the legend. Where possible, available and accessible data for dentists is also presented.

3.1. Health Care System Germany

The HCS in Germany is a universal multi-player HCS, meaning that every person that constantly is located in Germany is obliged to have HC insurance and that different insurance

providers are possible in Germany [135]. HC expenditure is covered by either the statutory health insurance, also called national social health insurance, or the private health insurance [136]. First, the background of the HCS is introduced. Second, an emphasis on the rights medical practitioners hold is made. The chapter closes with recent and upcoming developments in the German HC sector as much as a concluding resumé.

3.1.1. Origins and Reforms of the German Health Care System

Health care insurance (HCI) has been introduced in Germany in 1883 [137]. Beforehand medical treatment by doctors has been too costly for most parts of the society. The growing number of compulsory HCIs ever since nurtured the health care system (HCS) with funds. The introduction of payment in kind, made clear that HC expenses by HCIs were spent for doctors. A broad range of reforms and legal changes strengthened the position of doctors – the major change though came in 1955 when doctors received the exclusive right for ambulant care. Whereas in most countries outpatient health treatments are provided in hospitals, the German HCS gives non-hospital doctors the exclusive right for ambulant care [138].

The more recent reforms have focused on reducing the expenditure for HC in Germany and thus increasing competitive pressure amongst doctors [139]. The competition has further been fuelled by the introduction of a significant change. Whereas ever before the power in ambulant HC, was at the doctors who were to decide about the economics in their practices, this power over a range of steps shifted to the HCI funds which used their power to reduce HC expenditure. Thus, HC provision also at an outpatient practice level can significantly be affected by changes of the economic circumstances [140].

Public Health Care Modernisation Act: The Introduction of Health Care Centres

With the resolution of the public health care modernisation act (GKV-Modernisierungsgesetz, GMG) in 2004 the HCS was significantly reformed with a range of consequences for several players in German HC [141]. Some of the significant changes are the

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[135] Blümel & Busse, 2017
[136] Busse et al., 2017, p. viii
[137] Rosewitz & Webber, 1990, p. 14
[138] Rosewitz & Webber, 1990, p. 22
[139] Frank & Gerlach, 2005, p. 10
[140] S. Kock, 2012, p. 115 f.; Rödder & Schütte, 2013; Schreiber, 2015, p. 15
[141] Halbe et al., 2015, pp. v–vi

promotion of integrated care (being the support of ambulant care delivery by non-ambulant care providers), the strengthening of the position of the general family practitioner, relocation of ambulant care and the creation of health care centres (HCC). The initial idea of a HCC, would be to offer full service ambulant HC provision by one provider much rather than many [142]. These are similar to the polyclinic, which were a standard type of state-owned outpatient HC provision in former Eastern Germany. In Eastern Germany doctors– since it was a planned economy – usually worked either in hospitals or in HCCs and thus would totally focus on the provision of care rather than on administration or business planning, as they do when managing an own practice. The introduction of HCCs at the current stage puts the closure of polyclinics in Eastern Germany under question, that was primarily pushed through by doctors, who saw their position as freelance professionals in danger [143]. Overall it seems that the approximation of the Eastern German HCS to the one of Western Germany, rather than a full reform of both systems, was a decision also driven by the fears of Western German HC players of competition from established Eastern German structures [144]. Much of the lack of doctors and limited provision of HC in the countryside could eventually have been prevented if the continuation of polyclinics were permitted. Politics and recent policies are actively moving towards a nationalization of the HCS. The freelance professionality of medical practitioners seems only to be an untouched word in recent legislation [145].

Its introduction via this law significantly changes the provision of ambulant HC in Germany [146], because now provision of several fields of ambulant care are possible by liability and occupational laws within one organisation [147]. By law “hospitals” as much as psychologists, doctors and providers of ambulant dialytic care are allowed to own and run HCCs that provide ambulant HC in all medical fields. Thus – from a legal perspective – hospitals joined the group of ambulant care providers.

This legal liberalization in consequence means, that the new legal developments have opened ambulant HC provision to large scale investors without a medical background – a trend that can also be seen in the particularly profitable market of dental care [148]. Such investors

[142] Theurer, 2017
[143] Geidel, 2009, p. 563
[144] Manow, 1998, p. 171
[145] Blaschke, 2015, p. 17
[146] Wigge, 2011, p. 1; Wigge et al., 2011
[147] Rödder & Schütte, 2013, p. 30
[148] Wolf, 2018

wishing the ambulant medical care market may make use of either a hospital or a non-medical kidney dialysis care centre, as a mean to enter the market and open HCCs [149]. An HCC can be run economically but is required to have a medical director [150]. This director, though, is in medical questions not subordinated to the economic management of the centre. He is fully responsible for any medical decisions of doctors in the centre. However, he may hand over responsibilities for medical specialist areas to other specific specialist doctors and as such can delegate responsibility, if the size of the centre requires such action.

This law has particularly been discussed due to the introduction of increased self-payments by the publicly health-insured patient, such as the introduction of the practice fee per quarter and visited practice against practice hopping and other additional payments such as private payments for stationary care or for medication. [151]. Since the introduction of this law, hospitals are further allowed to deliver some ambulant HC services [152].

Supply and Profitability of Medication Act: Incentives for Economical Prescriptions

The supply and profitability of medication act (Arzneimittelversorgungs-wirtschaftlichkeitsgesetz, AVWG) was resolved in 2006 [153]. The law was introduced to further push economic thinking in the provision of HC and medication. If practitioners, since the introduction of the law, prescribe medication more economically, then their practice is rewarded. If, however, medication is prescribed in an uneconomic way, then punishment-payments by the practice have to be made [154]

Panel Doctors' Rights Amendment Act: The Right to Employ Doctors

The resolution of the panel doctors' rights amendment act (Vertragsarztrechtänderungsgesetz, VändG) in 2006 allowed for the employment of doctors not only in HCCs, but also in practices. The law was introduced to increase the competitive position of contracted medical practitioners (Vertragsarzt) [155]

[149] Theurer, 2017
[150] Rödder & Schütte, 2013
[151] Fleige & Philipp, 2011, p. 112
[152] Kray, 2011
[153] Bundesgesetzblatt 2006, 2006, p. 984
[154] Meyer-Lüerßen, 2006, p. 2
[155] Armbruster et al., 2018, p. 8

Statutory Health Insurance Competition Strengthening Act: Mandatory Health Care

HCI for German citizens was not always mandatory. Only since the statutory health insurance competition strengthening act (GKV-Wettbewerbsstärkungsgesetz, GKV-WSG) in 2007, HCI turned obligatory for German citizens up from 2009. Further the law's introduction significantly increased the competition or potential thereof of different HCI providers, since different more or less complex packages of care are possible to be chosen by the insured person.

Public Health Insurance Supply Structure Act: Intentions to Keep Investors out

Until 2011 when the Public Health Insurance Supply Structure Act (GKV-Versorgungsstrukturgesetz, GKV-VStG) came into effect, HCCs could be organized in all sorts of company types, only obligation: being multidisciplinary. Since 2011 HCCs can only be organized as GbRs, GmbHs and eGs. The AG – the stock company – was explicitly excluded as a legal form since the government assumes that such companies primarily follow economic interests and eventually may influence the quality of provided care or the liberty of medical decision taking [156]. However, full grandfathering has been granted to HCCs that already were found as AG. The law explicitly states that already existing HCCs can and should keep providing their services, which may also include the continuous provision of care also with new doctors and additional locations [157]. Shares of such AGs can be held by doctors, hospitals and providers of dialytic care. Thus, this is the backdoor of non-doctor ownership in ambulant HC provision. The government, however, in its fear of financial drive and thus the prohibition of AGs as company type did not consider the potential motivation of hospitals to run HCCs economically [158]. This objective may be of significant harm to the liberty of medical decision taking and eventually have a more severe impact on the quality of provided care than the company organisation as AG whose prohibition – as shown above – does not hinder investors from funding that market.

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[156] Theurer, 2017
[157] Theurer, 2017
[158] Wigge & Linnemann, 2008, p. 1178

Statutory Health Care Supply Strengthening Act: Non-interdisciplinary HCCs

Since the statutory health care supply strengthening act (GKV-Versorgungsstärkungsgesetz, GKV-VSG) in 2015, HCCs are not legally obliged to be interdisciplinary anymore [159]. This implies that doctors of one specialization are legally allowed to found, own and run HCCs. This supports the supply of countryside HC and also the growing desire of younger doctors to work in employment rather than opening an own practice [160]. Between 2008 and 2014 the number of employed doctors has almost doubled (from 12576 in 2008 to 24560 in 2014, some details in Appendix C) which clearly supports this growing preference [161]. This increasing number of employed rather than self-employed practitioners also lead to the creation of a specialist committee in order to represent this growing group and defend their rights on a political level, topic-wise the representatives will primarily touch the public service obligation since employed doctors are not under service obligation, whereas owner-managers of HC practices are [162]. The adaptation of the law and so the elimination of the necessity of interdisciplinarity for HCCs also is of particular interest to the field of OHC. Now dentists, orthodontists and other oral health professionals can create HCCs together, before this movement such creation was endlessly discussed, since all such specialists specialize on the field of oral health thus were not interdisciplinary as previously required [163]. An HCC does not have any limitations in terms of employment and thus can employ an endless number of doctors and run an unlimited quantity of branches, no matter its ownership structure [164]. As a consequence, dentists – if desired – can avoid employment limitation.

Further the remuneration for delegable duties has been expanded. Whereas beforehand a doctor had to be actively present at delegable duties himself (if the service was not performed in the patients residential environment), it is, ever since, also possible to delegate more duties that used to be performed by doctors within a practice [165]. Further, the law until 2015 had only foreseen the case of substitution for contracted doctors – with the growing number of employed doctors (see above), however, in practice regularly the question

[159] Bundesministerium für Gesundheit [National Health Ministery], 2015; Fügner, 2016, p. 18; Halbe, 2015a, p. 156; 2015b, p. 57 f.; Lieb & Lieb, 2015, p. 39
[160] Halbe, 2015b, p. 58
[161] Schiller, 2015, p. 99
[162] Schiller, 2015, p. 104 f.
[163] Halbe, 2015a, p. 156
[164] Armbruster et al., 2018, pp. 9, 15; Schnieder et al., 2017
[165] Wasem, 2015, pp. 66–67

of replacement has been coming up for employed doctors. As a consequence, now, it is clearly allowed to also replace employed doctors with a short-term replacement which does not need separate permission by the chamber of doctors.

What is not totally clear and has been decided differently in different counties throughout Germany is, whether HCCs are allowed to open HCCs. Legal interpretations make the reader think that the opening of HCCs by HCCs is supposed to still be allowed [166], however, there is space for interpretation. Future legislation shall eliminate this unclarity.

3.1.2. Practitioners and their Rights in Germany

Doctors traditionally are limited in their way of doing business and marketing their services by a range of regulations [167]. The strongest limitations practitioners are confronted with, are in marketing and freedom of establishment, as well as in HR including limitations imposed on the staff structure in a practice.

Therapeutics Advertisement Act

The extent of marketing doctors and hospitals could execute, is limited by the "Heilmittelwerbegesetz" (therapeutics advertisement act, HWG), which was significantly liberalized throughout the last years. Its most recent liberalization was in 2012 when the advertisement using patient testimonials and the active communication of completed trainings and publications outside the practice was permitted [168]. The law further allowed making use of before and after pictures as much as even showing doctors in their work clothing, which was namely prohibited before [169]. But even before marketing was a significant topic for practitioners and dentists alike, wherefore a range of marketing strategy advice books had already been published prior to the recent legislation [170]. No matter the point in time, there is an overall agreement in all practice management advice literature, being that marketing is an absolute requirement for successful practice management, and that it starts with a consistent corporate image starting from clothing, going over the fitments and

[166] Theurer, 2017, p. 87
[167] Barth, 1999, p. 543 f.
[168] S. Kock, 2013
[169] Kollwitz, 2013, p. 21 f.
[170] Gmeiner, 2008; Straesser, 2010

continuing to flyers and any external marketing communication [171]. Key is that all actions show one constant image and thus allows the targeted market to recognize the brand [172]. The importance of marketing in practice management theory is further explained in the section "Patient Orientation and Marketing" in subchapter 2.3

Freedom of Establishment

Only since the VÄndG (see page 29) the complex application procedures for practice establishment, whose outcome depended on public demand planning, cannot end with the rejection of the clinic opening application anymore. The demand planning now only has an impact on the speed of the application procedure but not on its outcome anymore.

Restrictions on Staff Structure

Further, doctors running own practices in HC and OHC specialisations used not to have the right to employ other practitioners without special permissions. Only since VändG (see section 3.1.1) this restriction was extended and ever since it is possible for practitioners to employ a maximum of two further doctors without special reasoning. This number, however, includes practitioners as education assistants and relief assistants (the ones one had to apply for beforehand). Additionally, a maximum of two further branches per owning party can be run. Significant change is, that – since the recent law – it is allowed to use above-mentioned employees to expand the services of the clinic. Beforehand it was possible to employ these highly trained specialists to discharge the main doctors, however, not to increase the service offer. Since this law, if one medical practitioner owns the practice s/he can employ two doctors and run two branches overall. If there were two owning practitioners, the maximum number of employable medical practitioners would grow to four, as the number of branches would. Theoretically, zero percent co-ownership of an additional doctor is possible, however, may put up the question of hidden employment [173]. If declared as hidden employment and abused to employ more practitioners and / or run more branches, the legal consequences may eventually be severe. Given the possibilities for doctors to run HCCs with endless employees and branches instead, this might – since the GKV-VSG – be the much wiser choice.

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[171] Maurer, 2012, pp. 72–76
[172] Havers, 2016, pp. 40, 50f.; S. Kock, 2013
[173] S. Kock, 2012, p. 124 ff.

Controlling not Mandatory

Owner-run practices are not legally obliged to introduce control mechanisms that serve as warning mechanisms for potential threats to business continuation. Practices and smaller clinics are run on feelings, the bank account and routines – these however do not warn and show threats upfront. The use of capital allocation measures enhances planning and can reinforce the efficiency of a business [174]. A crisis arising from the changed market is possible and, if not reacted to properly, can endanger the continuation of the business [175]. Look at section 2.3.3 to find out which controlling procedures should be implemented according to existing publications.

3.1.3. Numbers in Germany

Table 1: Public HC Expenditure in 2017 in Germany

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Services	Germany 2016		Germany 2017		Germany 2018		%-Change
	Bn. €	%-share	Bn. €	%-share	Bn. €	%-share	
Hospital Treatment	73	34,7	74,9	34,4	77,2	34,1	5,8
Treatment by Practitioners	36,5	17,3	38,1	17,5	39,4	17,4	7,9
Medication from Pharmacies	36,3	17,2	37,7	17,3	38,7	17,1	6,6
Dental Treatment	13,9	6,6	14,1	6,5	14,5	6,4	4,3
Illness Money	11,7	5,5	12,3	5,6	13,1	5,8	12,0
Other services	39,2	18,6	40,8	18,7	43,3	19,1	10,5
Sum	210,5	100	217,9	100	226,2	100	7,5

As visualized HC expenditure in Germany is raising every year. Overall expenditure has grown by 7,5% from 2016 to 2018 which is more than double than inflation [177]. Demographic development in Germany is also adding its share to change and innovation in the HC industry. A growing share of new company foundations in Germany can be seen in the HC industry.

[174] Wildavsky, 2017, p. 5
[175] S. Kock, 2012, p. 115; Schreiber, 2015, p. 15
[176] GKV-Spitzenverband, 2017, p. 4; 2018, p. 4; 2019, p. 4
[177] CPI change 2016 to 2018: 3,3%, Statistisches Bundesamt, 2020

Many of these foundations are very innovative and intend to deliver a potential solution to the challenge of severe HC professional shortage [178]. In Eastern Germany It was already standard more than 15 years ago to recruit practitioners from neighbouring countries [179]. In Germany alone by 2030 the need for doctors is about 160k practitioners higher than the number of practitioners expected to be trained by then in the German education system [180].

General Health in Germany

For comparative reasons general health is measured at life expectancy. The average in Germany has been growing over many years. Between 2001 and 2010 it has grown by 2.34 years for a new born male representing a growth of 3.1%. In comparison to that the average life expectancy of a new-born woman has only grown by 1.58 years. This represents a percental growth of only 1.9% on average meaning that the age gap between men and women is shrinking for the new born in Germany. In fact, between 2001 and 2016 the life expectancy difference of men and women has decreased by about a year, even though average life expectancy has increased. As for the overall system this tells us, that medical care has improved over the last years (see Appendix D for details).

Health Care Market in Germany

Health Care Expenditure

HC expenditure in Germany are growing yearly and form a significant and growing share of the GDP (see Figure 9). Demographic change in Germany is also adding its share to change and innovation in the HC industry. From 2005 to 2015 the nominal expenditure for HC in Germany has risen overall by almost 48%. The nominal expenditure per patient has grown by almost 46% [181]. For further details about HC expenditure and its growth in recent years in Germany see Appendix D.

In Germany doctors used to earn on average a five-fold salary compared to average income [182]. This multiplier has slightly declined over time, but still is massive especially in international comparison (see Appendix E). Until 1992 no significant changes were

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[178] Stummer et al., 2018, p. 8
[179] Kaufmann, 2003, p. 82
[180] Rogmann, 2015
[181] Statistisches Bundesamt, 2019
[182] Rosewitz & Webber, 1990, p. 13

implemented to the system – only since then so called competitive reforms began, which aimed to make labour cost in Germany more comparable on an international scale [183].

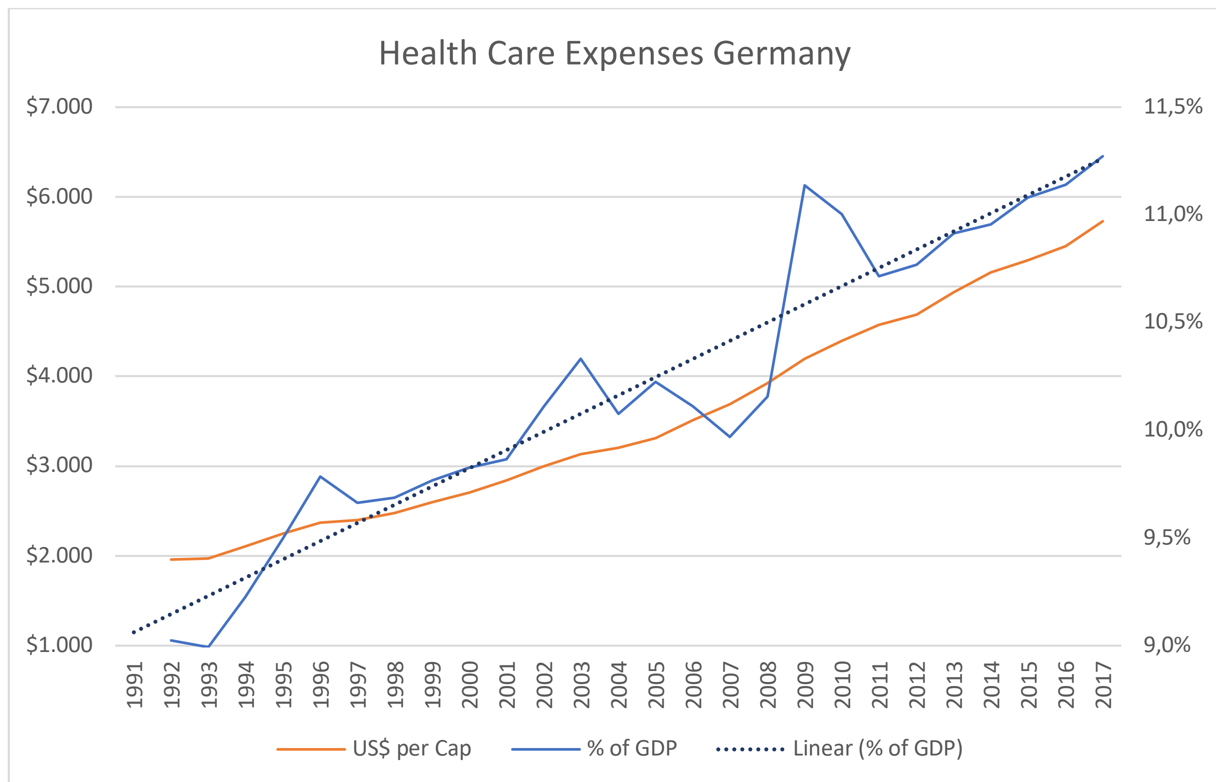

Figure 9: Health Care Expenses Germany

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Care Supply Rate in Germany

The quantity of practitioners in Germany has been increasing steadily – as much the absolute number, as also the one per inhabitant. However, especially for general practitioners, the working conditions in Germany have been turning worse over decades [185]. If this is connected to the change of the employment situation cannot be answered here, however, the number of employed practitioners – no matter their specialization – has more than quadrupled between 2006 and 2018 [186]. Migration is a growing topic in the country [187] – especially migration to Switzerland [188]; there also is a significantly growing number of

[183] Perschke-Hartmann, 1994, p. 55 f.
[184] OECD, n.d.
[185] Kopetsch, 2008, p. 719
[186] Bundesärztekammer [Federal Chambre of Practitioners], 2018, p. 7
[187] Kopetsch, 2008, p. 719
[188] “Abwanderung von Ärzten ins Ausland [Migration of Practitioners to other Countries],” 2016, p. 39

international practitioners working in Germany, from 2006 to 2018 this number has more than tripled [189]. With all migration including the negative migration balance [190], Figure 10 shows, that the number of active practitioners is still growing constantly.

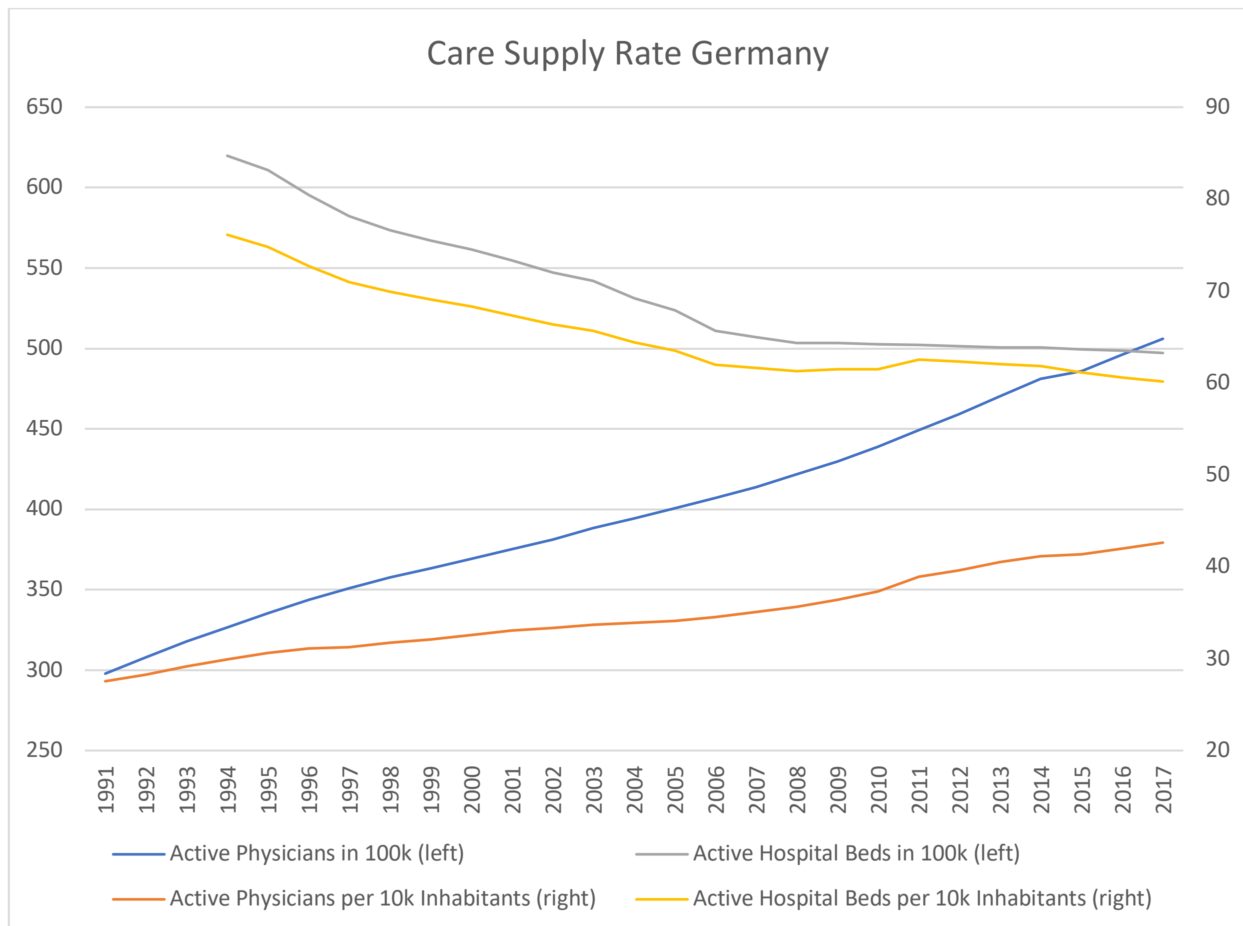

Figure 10: Care Supply Rate Germany

[191]
More details in Appendix F

Doctors in Germany are trained medically. Only recent trends have brought up the question whether business or entrepreneurial training is of importance in the medical field for doctors [192]. However, when running an own practice thereafter, doctors may face significant lack of business or entrepreneurial knowledge and eventually need to meet totally new challenges such as staff leadership or controlling. Further, over recent years, the amount of

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[189] Bundesärztekammer [Federal Chambre of Practitioners], 2018, p. 9
[190] Kopetsch, 2008, p. 719
[191] *Gesundheitsberichterstattung des Bundes*, 2019
[192] Behringer et al., 2018, p. 243

administrative challenges has been ever growing, which makes it even harder for practitioners to successfully run an own practice and if so to focus on the real patient needs [193].

3.1.4. Oral Health Market in Germany

OHC is seen as a market that guarantees economic growth [194]. For over a decade remuneration in OHC practices has been growing steadily [195]. Given the quantity of HCC foundations that can be observed in the OHC field only [196], the potential in that market by far is not exploited yet [197]. In 2015 one dentist would care for 1150 patients [198]. In European comparison the density of dentists in Germany can be seen as relatively high [199] though not the highest in Europe (see Appendix G for details). What is particularly interesting though is, that for several years the number of contracted doctors is declining whilst the number of employed doctors is growing significantly [200]. In fact between 2007 and 2017 the share of employed dentists rather than contracted dentists has grown from 15.29% to 29.21% of all dentists [201] and thus in numbers has more than doubled (since overall quantity has grown too) within a decade (see Appendix H for details). The trend towards employment is the case in practices and HCCs alike [202]. The most significant change in OHC, however, has happened in the field of surgery. In maxillofacial surgery the number of employed practitioners has grown between 2006 and 2018 from 17 to 133 and thus has gone up almost eightfold increasing its share of all of these surgeons from 1.8% to 10.6% [203]. In accordance with the number of employed doctors the number of OH clinics/practices is actually declining since about 2010, which again supports the trend towards larger clinics and HCCs [204]. In such larger centres, practitioners can actually focus on their qualification of being a medical professional, rather

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[193] S. Kock, 2012, p. 113; Schreiber, 2015, p. 15
[194] Jankowski, 2017, p. 2
[195] Jankowski, 2017, p. 2
[196] Jankowski, 2017, p. 2
[197] Jankowski, 2017, p. 2; Schnieder et al., 2017
[198] Jankowski, 2017, p. 8
[199] Eurostat, 2017
[200] Jankowski, 2017, p. 9
[201] Bundeszahnärztekammer & Kassenzahnärztliche Bundesvereinigung, 2019
[202] Kassenärztliche Bundesvereinigung, 2018
[203] Bundesärztekammer [Federal Chambre of Practitioners], 2006, p. 18; 2018, p. 17
[204] Fügner, 2016, p. 19; Iserloh & Kehr, 2016 e.g.: p. 226; Jankowski, 2017, p. 9

than a potentially overwhelmed entrepreneur, that is encouraged to run an own practice without any training or preparation to do so [205].

Since the introduction of the health care strengthening act (see subsection "Statutory Health Care Supply Strengthening Act" in section 3 for further details) the number of HCCs in Germany that are focusing on OHC has grown from 24 HCCs with 144 employed dentists in the beginning of 2014 to 555 HCCs, with 1751 employed dentists in quarter two in 2018 [206]. One reason for the increase of the number of opened HCCs rather than group practices is, that HCCs are not limited in the quantity of doctors they can employ and number of branches they may open [207]. It shall here be mentioned that there are still significant differences between Western and Eastern Germany [208]. The unexploited full potential of OHC is supported by the decreasing loan default risk which is over 78% lower than market average – meaning that significantly less loans given to health care professionals that are to open practices fail, than common in other professions [209].

The German OHC market is well-saturated with practitioners (see European comparison in Appendix G). On average per dentist (including orthodontists and oral maxillofacial surgeons) there are 1150 patients per active dentist [210]. Over the last years the number of dentists has been growing significantly (constant growth since 2000) – the number of practices though has been declining – especially since 2010. There is a growing trend to run bigger oral health clinics. The quantity of practices only between 2012 and 2017 has dropped by 3% [211]. Given the GKV-VSG (see page 31) that allows for HCCs with similar specialisations [212], a growing number of dentists organizes itself not anymore as practice but as HCC. Whereas in form of a practice a doctor is legally limited to employ a maximum number of two doctors, s/he may employ an endless number of doctors if organized in form of an HCC [213]. Due to the growing average age of practitioners [214] and the significantly higher number of dentists between 50 and 60 (in 2017 this number was 53,7% higher, see Appendix H for details) in

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[205] Schnack, 2013
[206] Kassenärztliche Bundesvereinigung (KZBV), 2018
[207] Jankowski, 2017, p. 10
[208] Eibich & Ziebarth, 2014, p. 43; Jankowski, 2017, p. 11
[209] Jankowski, 2017, p. 12 as cited in Creditreform Rating, Creditreform 2016
[210] Jankowski, 2017, p. 8
[211] Jankowski, 2017, p. 9
[212] Schacks, 2016, p. 800
[213] Armbruster et al., 2018, p. 9
[214] Bundesärztekammer [Federal Chambre of Practitioners], 2017

comparison to the number of dentists between 28 and 38 [215] there is a significant change to be ahead for the German society. In Germany as a consequence, there will be more patients per doctor, if moving to Germany does not become more attractive for foreign doctors.

Overall in Germany the average salary of dentists is slowly but steadily growing [216]. However, the income differences between Western and Eastern Germany are significant. On average a clinic owner in Eastern Germany according to her research still has about 20% less profit than a clinic owner in Western Germany. Whereas overall 1,66% of all loans fail, the number of failing business loans for oral health practitioners is as low as 0.39%. The average rentability in 2017 of clinics is at about 32.5% - within the last five years it thus has grown by 20.3% [217].

The quantity of educated assistants is declining for many years. However, if looking at the number of education contracts, the number of new Medical Assistants [218] still is high, compared to other industries (see Appendix I). The issue seems to be much more, that overall the completion of apprenticeships has become less attractive to female youngsters. The number of new apprenticeship contracts for females declined by more than 20% and thus is an explanation for a decline in that field of specialization (see *Appendix J*) that is heavily preferred by woman rather than man [219] In fact, in 2014 only 1.1% of all new apprenticeship contracts were closed with man – even though the job slowly but certainly is also getting more interesting to male applicants [220]. A comprehensive overview about the apprenticeship development in the specialisation of dental assistants can be found in Appendix K.

In Germany most owner-run practices are still rather small and offer the services of one doctor. On average in Germany a dental practice employs a growing number of staff members. This number has grown from 4.67 in 1992 to 6.08 members of staff in 2016 excluding owner-manager-practitioners [221]. The most common form of practices run and owned by more than one doctor still is the group practice. In form of a group practice its mostly two doctors that run and own the place [222].

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[215] Bundeszahnärztekammer - Arbeitsgemeinschaft der Deutschen Zahnärztekammern e.V. (BZÄK), 2017
[216] Jankowski, 2017, p. 12
[217] Jankowski, 2017, p. 13
[218] Bundesministerium für Bildung und Forschung (BMBF), 2018
[219] ulmato.de, 2019
[220] Bundesinstitut für Berufsbildung [Federal Institute for Professional Education], 2014a, p. 1; 2017a, p. 1
[221] Kassenärztliche Bundesvereinigung (KZBV), 2018, p. 150
[222] Jankowski, 2017, p. 10

3.1.5. Conclusion and Developments in Health Care in Germany

Developments such as the introduction of HCCs impose a significant change of the market conditions and can have a severe impact on classically owner-run practices. These suddenly face unknown and unforeseen challenges [223]. Thus, the whole field of HC became more complex and practices as much as HCCs are "complex economical entities. For their leadership it is required to be doctor and entrepreneur at a time." [224]. In specialized IT-literature about business modelling this market is called highly complex and thus requires very specific business architecture for HCCs in order to reach the company goals formulated for this volatile market [225]. With the growth of business thinking and business administration in this market, HCCs definitely are a "business model of the future" [226]. With the legal changes that were introduced in recent years, hospitals now, form part of the beforehand less competitive field of outpatient care, that used to be exclusively served to by contracted doctors. However, it is to be mentioned that patient behaviour is changing. For several years the quantity of outpatient treatments is growing. This, however, not only since care possibilities have improved, but also, because patients treat their own health in a different manner – and since precaution care simply has grown in importance – is making hospital care as a consequence less likely [227]. And it is not only via HCCs that hospitals in Germany can now serve the outpatient care market. Hospitals can make contracts with HC carriers and thus can – to some extent – provide ambulatory care within the hospital. This possibility does not require the hospital to go through an application procedure, whereas, practitioners still have to successfully complete a complex application for contractual practice locations. The selection procedure, however, was softened (see Freedom of Establishment). In fact there also is a significant number of business advice books existing for hospital managers, suggesting them to economically explore the market of outpatient care and develop the business that way [228].

[223] S. Kock, 2012, p. 115
[224] Schreiber, 2015, p. 7
[225] Pütz et al., 2018, p. 43
[226] Renger et al., 2016, p. 10
[227] Iserloh & Kehr, 2016, pp. 211–217
[228] e.g. Lohmann, 2016, p. v

Financing Challenges in Health Care

One major reason for the introduction of these changes is, that HC is facing significant financing problems. Medical developments are growing in complexity and thus also in price [229]. The government has to significantly re-evaluate the costs and pricing in the HCS, in order to assure adequate treatment for all citizens. Research showed that venture capital – under a range of limitations – may eventually be a way of approaching the financing issues the medical sector is facing [230]. This, however, stands in contrast to the intentions to keep investors out of the market with laws such as the GKV-VStG (see page 30 for details). All attempts honoured, the initial investment at the opening of a clinic for a doctor, that just is starting, has grown significantly, since the number and complexity, thus, consequently price of treatment devices, that are required to treat today's well-informed patient, has grown. This rising sum of investment imposes an increasing entrance barrier for medical practitioners. HC expenses and thus revenues of HC providers are expected to grow further in upcoming years – in some areas such as Berlin and its surroundings, growth is also expected since medical tourism is a topic of significantly growing importance [231].

Health Care Open to Investors

New legal developments have also opened ambulant HC provision to large scale investors without a medical background – a trend that can also be seen in the particularly profitable market of dental care [232]. Such investors wishing the ambulant medical care market may make use of either a hospital or a non-medical kidney dialysis care centre, as a mean to enter the market and open HCCs [233]. Structure-wise an HCC can be run economically but is required to have a medical director [234]. This director, though, is – in medical questions – not subordinated to the economic management of the centre. The medical director is fully responsible for any medical decisions of doctors in the centre. However, he may hand over responsibilities for medical specialist areas to other specific specialist doctors and as such can delegate responsibility, if the size of the centre requires such action. Via hospital or dialytic

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[229] F. Fischer, 2003, p. 87f.
[230] F. Fischer, 2003, pp. 27–31
[231] Tomenendal et al., 2018, p. 15
[232] Wolf, 2018
[233] Theurer, 2017
[234] Rödder & Schütte, 2013, p. 13

care centre possession HCCs are very attractive to large scale investors, given the margins in HC and OHC in Germany. The Colosseum Dental group – a 100% daughter of Jacobs coffee, an international coffee brand – that overall employs about 1000 dentists in 7 countries and is entering the German market with an additional subsidiary, is only one example of many players that are currently hunting for market share in this lucrative industry [235].

Developments in the Market

Market investigations have shown, that in Germany, the provision of healthcare in the countryside is significantly declining and even leading to a care supply shortage [236]. Thus, alternative solutions for countryside HC – especially ambulant care – are of utmost importance to the German government. The continuous and growing support of the creation of multi-clinician-practices also in the form of HCCs is one such action [237]. Research about origins and reforms of the German HCS, as much as about rights of practitioners in the German system has shown that over recent years the system has significantly been liberalized. Whereas medical practitioners used to be a very protected group of professionals providing their services as professional freelancers in their own practice, there is a significant development towards handling the provision of care under more commercial and economical viewpoints. The growing rights of practitioners on the one hand simplifies the specialist's work, however, also significantly reduces the barriers of market entry for other players and thus potential competition. Since hospitals are growing, their share in the outpatient market [238], it becomes more and more of an option to practitioners, that are trying to find a successor, to sell their practice to a hospital which can then integrate the practice in the hospital's HCC structure.

Looking at Germany, there is all, but a lack of practitioners, let it be in general HC or OHC. Facts show, that the HC market is evolving and changing rapidly. The country – due to the systematic changes summarized in section 3.1.5 – is moving towards liberalized outpatient care and so the way especially ambulant care is delivered is transforming and will continue to significantly alter in upcoming years. A growing amount of administration is reducing the quantity of time practitioners can care for their patients in owner-run practices. Larger systems may employ backend structures to handle at least some of the administrative

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[235] Wolf, 2018
[236] Dostal et al., 2018, p. 90
[237] Jahnke et al., 2018, p. 7
[238] Iserloh & Kehr, 2016, p. 218

requirements. That in combination with the increasing number of doctors demanding for jobs, rather than self-employment is fuelling alternative movements including the growing number of HCCs.

It can be summarized that there are two strongly contradicting forces that are shaping the future of care in the German market – or rather said the training requirements of the future workforce. Whereas on the one hand side the business requirements of the future workforce are raising when looking at the provision of out-patient care by single unit freelancers, on the other hand there is no business knowledge need whatsoever when looking at the potential employment of a doctor as a medical professional in an HCC or a practice group.

3.2. Health Care System Hungary

The Hungarian HCS is being described in this section. First – due to the scope of this study – the background of the Hungarian system is only briefly introduced. Focus in this section is the current system. Second, special rights and obligations of practitioners are being explained. Last but not least, conclusions about HC provision in Hungary including market and system trends are given and explained. It was significantly more difficult to find information about the Hungarian system than the German system. This, however, could be related to the language barrier faced by the author.

3.2.1. Origins and Reforms of the Hungarian Health Care System

Due to the scope of the study and also because of language barriers, the Hungarian system is only described to a limited extent. As international sources did not allow for breaking down incidents to changes introduced via specific laws the following subsections are set as time frames. Historically seen, „Hungary has a long-standing tradition of health services dating back to infirmaries attached to monasteries in the eleventh century“ [239]. Despite significant decentralization since the 1980s, the government has restored measures of central control via extensive regulations to control HC expenditures [240]. Today the HC system in Hungary is

[239] Gaál, 2004, p. 5
[240] Gaál, 2004, p. 29

back to "something very similar to the Semashko model of centrally planned economies." [241]. It was decided not to include a full historical analysis of the Hungarian HCS. Please consult Mihályi [242] for a good systematic analysis of the background of the country's health care system. In this part only the reforms back to more centralization since 2010 are discussed in more detail

Full Reform and broad access to Care since 2011

In the years prior to 2010 HC was liberalized, a German style point system introduced, general practitioners became entrepreneurs, but also HC expenditure has grown significantly. Attempts were made to reduce the GDP percentage share of HC in the country [243]. After several years of struggle [244], by 2010 the HCS in Hungary faced a complete crisis and went through major reforms [245]. Throughout the reformation process of the entire country the HCS has also significantly changed. Even the naming changed from "Health insurance system" or "Social security" as it was called between 1992 and 2010 to "National Health Service" [246]. Full solidarity was introduced by making every member of society – no matter its status or financial position – mandatory member of the insurance [247]. Due to the cultural background of some parts of the Hungarian society, it turns out that the pure possibility of access to HC is not a systematic core issue in the country, but that socio-economic and socio-cultural aspects do play a significant role in accessing care [248]. 61 health promoting offices were introduced in 2013 and 2014, primarily to promote HC and make it accessible to parts of the society not pursuing western HC practices. From September 2013 until the end of 2015, 170,927 clients had a complementary health check [249] – a measure that may lead to an increase of the acceptance of Western HC practices in some parts of the society. In 2016 in order to improve care quality, resources for care were significantly raised. Main focus was the increase of salaries in order to reduce migration of medical professionals [250], which was a clear

[241] Mihályi, 2017b, p. 248
[242] 2017a
[243] Boncz, 2011, p. 37
[244] Mihályi, 2009, p. 197
[245] Boncz, 2011, p. 37
[246] Mihályi, 2017b, p. 243
[247] Mihályi, 2017a, p. 86
[248] Uzzoli & Beke, 2018, p. 155
[249] Government of Hungary, 2017, p. 16 f.
[250] Government of Hungary, 2017, p. 17

consequence foreseen even by researcher in that field [251]. The future shall show whether and which the consequences of the nationalization of care including hospitals shall have.

3.2.2. Practitioners and their Rights in Hungary

Doctors, since significant reforms in 1992, have a status as freelancers – similar to Germany – however, are very badly paid for by state funding. Thus, many doctors are either migrating to other countries or looking for alternative sources of income, other than payment by the NEAK and thus offer additional supplementary services [252]. Marketing still is strongly prohibited in Hungary [253] and thus mostly not the selected method to gain customers. One common trend, as explained bellow, is offering services to international paying customers.

3.2.3. Numbers in Hungary

The extent of analysis possible about the Hungarian market was limited, first due to the barrier of language of the researcher and second since some statistics were not available in such detail for Hungary as they were for Germany. This part attempts to give a first insight into the Hungarian HC market and to also create a foundation that allows for understanding the trends in that market – even if hardly possible with the hard to foresee future ahead [254]

General Health in Hungary

General health for comparative reasons again is measured in average age of the society. In Hungary the average life expectancy has been growing for many years. However, "Hungarians [still] have the lowest life expectancy in the OECD and its rate of increase, over the last 20 years, has been much slower than in the rest of the area." [255]. This may come for a range of reasons. Between 2001 and 2010 in contrast the average life expectancy of a male has grown by 2.3 years representing a growth of 3.4%. The average life expectancy of a woman has grown by 1.6 years which means that this age has only increased by 2.1% (see Appendix L). The last data found is from 2010, however, one can say, that the age gap between men and women is shrinking.

[251] Mihályi, 2012, p. 20
[252] Rurik, 2012
[253] Gargya, 2012, p. 3
[254] Mihályi, 2017a
[255] Orosz & Burns, 2000, p. 2

Health Care Market in Hungary

Health Care Expenditure

As shown in Figure 11, the expenses for HC have been growing significantly – together with the GDP overall. Since 1991 the HC expenses share of GDP has grown by about 1%. The trendline implies a small but clear growth trend. The numeral growth in HC expenses comes primarily from major salary increases of HC workers. The most recent numbers found as income manifolds for practitioners though show, that – despite all cost increases – wages are still minimal in international comparison (see Appendix M).

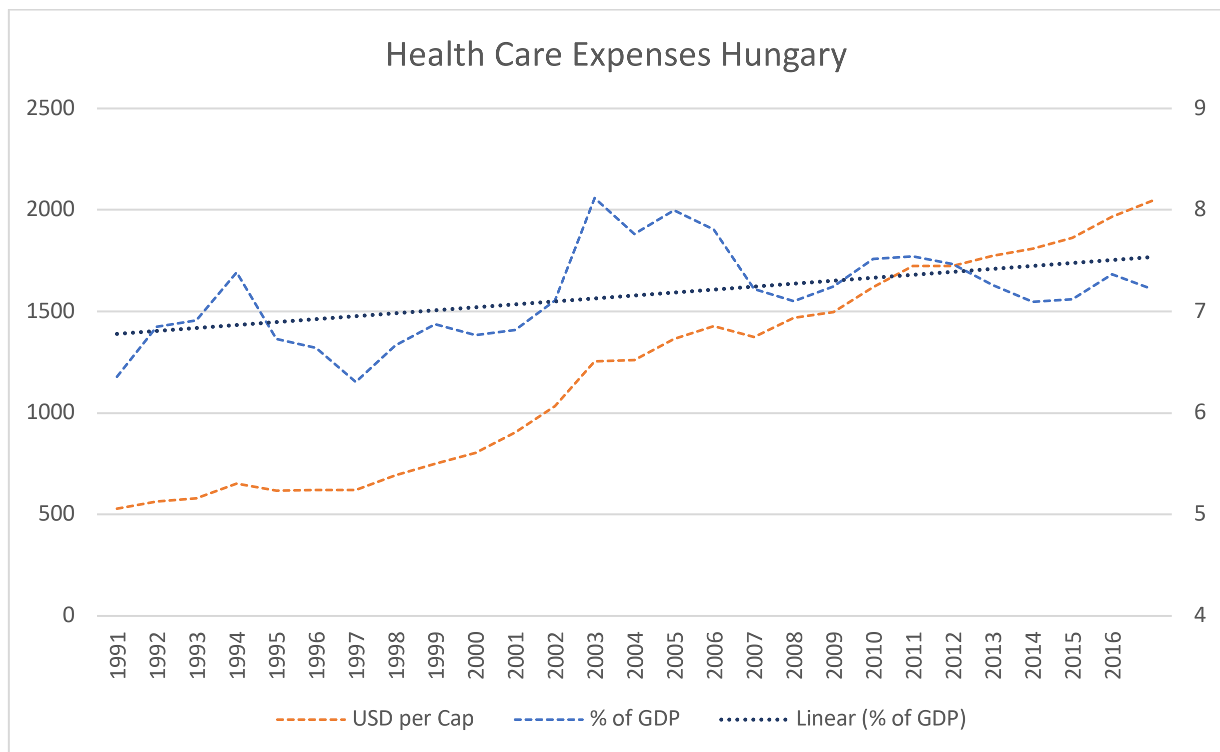

Figure 11: Health Care Expenditure Hungary

[256]

[256] OECD, n.d.

Care Supply Rate in Hungary

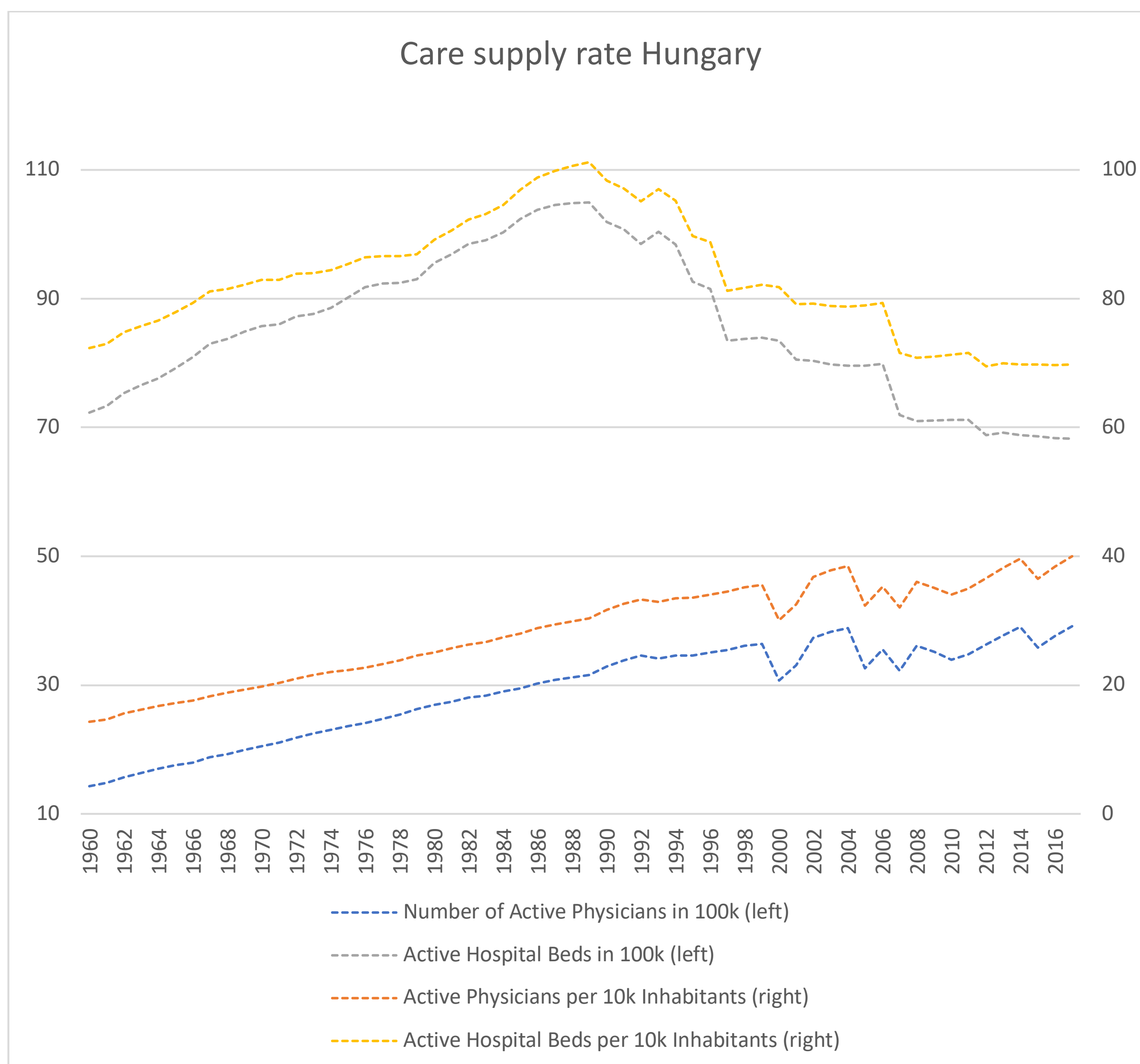

Figure 12: Care Supply Rate Hungary

[257]

The provision of HC in Hungary is dominated by hospital stays [258]. However, the following facts are important to note nevertheless. The number of doctors working in the country has been decreasing in recent years with primarily young professionals that are leaving the country [259]. In fact, the number has grown 65% from 1960 to 1992 representing a yearly growth of 2,8% on average. From 1992 onwards, however, the yearly number has only grown by roughly 10% representing a yearly average growth of about 0,5%. Medical students,

[257] OECD, n.d.
[258] Orosz & Burns, 2000, p. 22
[259] Lénárd, 2018

as a result of migration, do not see a secure professional career prospect at home [260] and are thus feel encouraged to leave the country. The hypothesis is supported when looking at the average age of medical practitioners being 49.31 years, with every second practitioner being above 50 years of age; the average age of other healthcare professionals in turn is lower with 44.08 years [261]. According to Lénárd [262], the number of fresh graduates roughly equals the number of doctors leaving the country. As a consequence, the average age of doctors is increasing and thus at the stage of retirement there will not be a replacement for these professionals. Further in the country there is a trend towards working in the private HC sector [263]. Since – as a consequence – the workload on the doctors remaining in the systems steadily keeps growing, the tendency to move or quit increases [264]. The limited supply of professionals in the HC sector, other than practitioners, further increases the work of nonmedical tasks on practitioners, limiting their capacity for patient treatment [265].

3.2.4. Oral Health Market in Hungary

Due to barriers of language no detailed analysis about the Hungarian OHC market was possible. In section 0 there is a visualization about the quantity of active practitioners in Germany and Hungary. Figure 16 allows a primary understanding about the growing number of practitioners per member of society in Hungary and thus the certainly growing level of care in the nation. No matter the growing care, Hungarian children today according to recent statistics still have the worst teeth in Europe [266]. According to extensive research conducted with OH practitioners, major regional differences exist in the country and there is a severe need to improve OHC education nationwide [267]. The more recent statistics about children [268] imply, that all improvements considered, there still is a significant way to go in order to deliver adequate OHC to each and every member of society. No further analysis was pursued given the limitations in access to data and the language barriers.

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[260] Lénárd, 2018; Mihályi, 2017b, p. 249
[261] Lénárd, 2018
[262] 2018
[263] Lénárd, 2018
[264] Lénárd, 2018
[265] Lénárd, 2018
[266] Wynn, 2018
[267] Borbély et al., 2011, p. 3
[268] Wynn, 2018

3.2.1. Conclusion and Developments in Health Care in Hungary

In Hungary HC turned more accessible to all parts of society in recent years. It is further intended to increase HCSs in remote parts of the country to make it even more accessible to minorities. The country overall is facing a significant challenge, since HC expenditure is barely covered for, but also the funds are limited. Salaries for medical professionals will potentially further increase to reduce the potential of further migration of professionals.

Health Care Tourism

A strong trend in the country historically due to thermal spas and for more than a decade recently was the offer of HC services – particularly dental care – to tourists. In fact 52% of all health related visits to Hungary claim to be related to dental care [269]. In fact the country has become a leader in dental tourism [270]. According to market estimates Hungary has about 40% share of the dental tourism market in Europe and still is promoting growth for that market [271]. Medical tourism started at the Western borders of Hungary for neighbouring countries, today Budapest is one of the main locations for dental tourism [272] since it is easily accessible from all parts of Europe and, with a more than 20 years old tradition [273], seen as a reliable provider of dental care [274]. However, Hungary is not only famous for dental tourism. Medical spas and also general health are widely promoted and offered to tourists travelling particularly to the Hungarian capital [275], where the cost of medical care are up to 80% lower than in other European countries, where some of the tourists are coming from [276]. Legally HC services used to be treated the same way as other goods and services in the EU, and thus could be provided and demanded for across borders. The offer of services to the German HC tourist used to be linked to treatment contracts closed between the provider and the HCI which is rather an exemption [277]. Cross-border movement is becoming more and more of a possibility and is also enhanced by more modern legislation [278]. Even if this insight in medical tourism only allows

[269] Michalkó et al., 2012, p. 43
[270] Kovacs & Szocska, 2013, p. 415
[271] Kummer, 2012a
[272] Kummer, 2012b
[273] Kovacs & Szocska, 2013, p. 415
[274] Keckley & Underwood, 2008, p. 6
[275] Kummer, 2012b
[276] “Hungarian Tourism promotes medical tourism,” 2012; Kummer, 2012b
[277] Kaufmann, 2003, p. 83
[278] Rauchmann, 2007, p. 75

for a minor idea of its importance in the Hungarian HCS no further emphasis could be devoted to the topic. It shall be repeated, however, that dental tourism is the most important aspect of HC tourism in Hungary.

Developments in the Market

Hungary is moving towards a more integrated provision of care. The government is increasing its efforts to provide care to all parts of the society and aims at reducing hospital care, which has been dominant in the country for decades. The country's practitioners, however, either tend to leave the country or – for monetary reasons – rather offer additional payable services to tourists, instead of improving care services to the country's own members of society.

It can be said that traditionally the Hungarian system used to be much more advanced than the German system. Due to years of economic disadvantages and an over-importance of hospital care in the nation, HC in Hungary has suffered. Over the last decade, however, the HC system in Hungary is recovering and improving significantly which can particularly be seen at the fast-growing average age of the population. In the nation the political importance of HC can also be seen since the population, especially in more rural areas, is actively supported to participate in complementary health checks.

3.3. Systemic Differences and Future Development

The previous sections have shown that there are significant changes in how HC provision is structured in the two analysed countries. This chapter first intends to summarize the differences between the two countries and then gives an overview of a range of global trends in HC.

3.3.1. Systematic Differences between Germany and Hungary

The previous sections have provided information about HC provision and its structure in the two analysed countries. This section points out the differences between the two countries. The system differences between the structures of the two HCSs are shown in Table 2. The biggest difference from a systematic perspective is, that Hungary provides access to basic care today by a centrally organized national health service and that in Germany care is

linked to HCI, which however is publicly related. Further differences as subsequently explained can be found in the access to care and salary levels of professionals.

Table 2: Systematic Differences between Germany and Hungary

279

	Germany	Hungary
Who pays	HC insurance (public or private) and patients	NEAK and patients
Insurance obligation?	Since 2009, most working society had to have HC insurance before	2010 a national health service was installed granting HC to citizens
Who delivers	Private and public HC providers, trend towards state-offered care	State-owned care with mostly employed practitioners

Differences in Access to Quality Care

The Hungarian HCS used to be one of the most developed HCSs in the world offering access to quality care to most of its society. In Germany in turn high quality HC is only a recent post-world-war development. Health insurance in Germany only turned completely mandatory in 2009, complete national health service in Hungary was introduced in 2010. However, since doctors are barely capable to cover their expenses by the limited funds provided by NEAK, practitioners look for other sources of income and some even avoid providing basic care. Informal payments were expected to amount up to 1.5–4.6% of the entire HC expenditure [280]. Thus, the care quality has suffered in recent years and high quality care seems to be limited to the wealthy and educated few [281]. Only very recent developments were actively intended to close this gap, supporting that people in more rural areas go for complementary medical check-ups. In Germany care quality has been raising for decades and generally is accessible to all citizens given the HC insurance obligation.

3.3.2. Differences in Care Control and Salaries in Health Care

Since the reforms in 2010 HC provision in Hungary is highly regulated. Only private HC provision and the services offered to foreigners are less regulated. In Germany the limitations are not that strict in terms of how much can be charged – especially if doctors do good

[279] Blümel & Busse, 2017; Busse et al., 2017; Nemzeti Egészségbiztosítási Alapkezelő, 2017; own development combined from: GKV-WSG, Uzzoli & Beke, 2018
[280] Gaal et al., 2006, p. 86
[281] Uzzoli & Beke, 2018, p. 155

marketing, prices can be higher and patients are willing to pay more than their insurance company covers for. The privately insured patients generally get more expensive treatments [282]. By today in Germany additional fees, for care services that are not covered for by insurance, are becoming more common. The so called IGEL-care-service are part of these additional services, which are provider to patients that are having justified demand for specific treatment offers and thus pay a share of the therapy by themselves. In an international comparison, salaries in HC or rather earning potential in the case of freelancers is relatively good (see Appendix E).

3.3.3. Comparison between Germany and Hungary in Numbers

This section serves as a comparison between Germany and Hungary and concludes upon the secondary data analysis that forms part of this study. Similar to the sections about the single countries, the aspects are compared between the countries one by one.

A comparison of the average age as visualized in Figure 13 tells us, that the German population on average is growing older. If, however, looking at the data from 2000 to 2012 (available for both countries), then one can see that the gap between the average age in Hungary and Germany is shrinking, implying that the developments in the last decades must have been very positive in Hungary (for details see Appendix N and Appendix L).

General Health Compared

A comparison of the general health in Germany and Hungary as visualized in Figure 13 shows, that life expectancy in Germany still is significantly higher, that however, the life expectancy in Hungary – especially for males – has been growing significantly in recent years. Generally – as shown in the graph – the life expectancy of male inhabitants I growing in both nations. However, it grows faster in Hungary. Fastest growth is at a younger age, which might be linked to medical technology to have the strongest impact on younger member of societies.

[282] Rieder, 2019

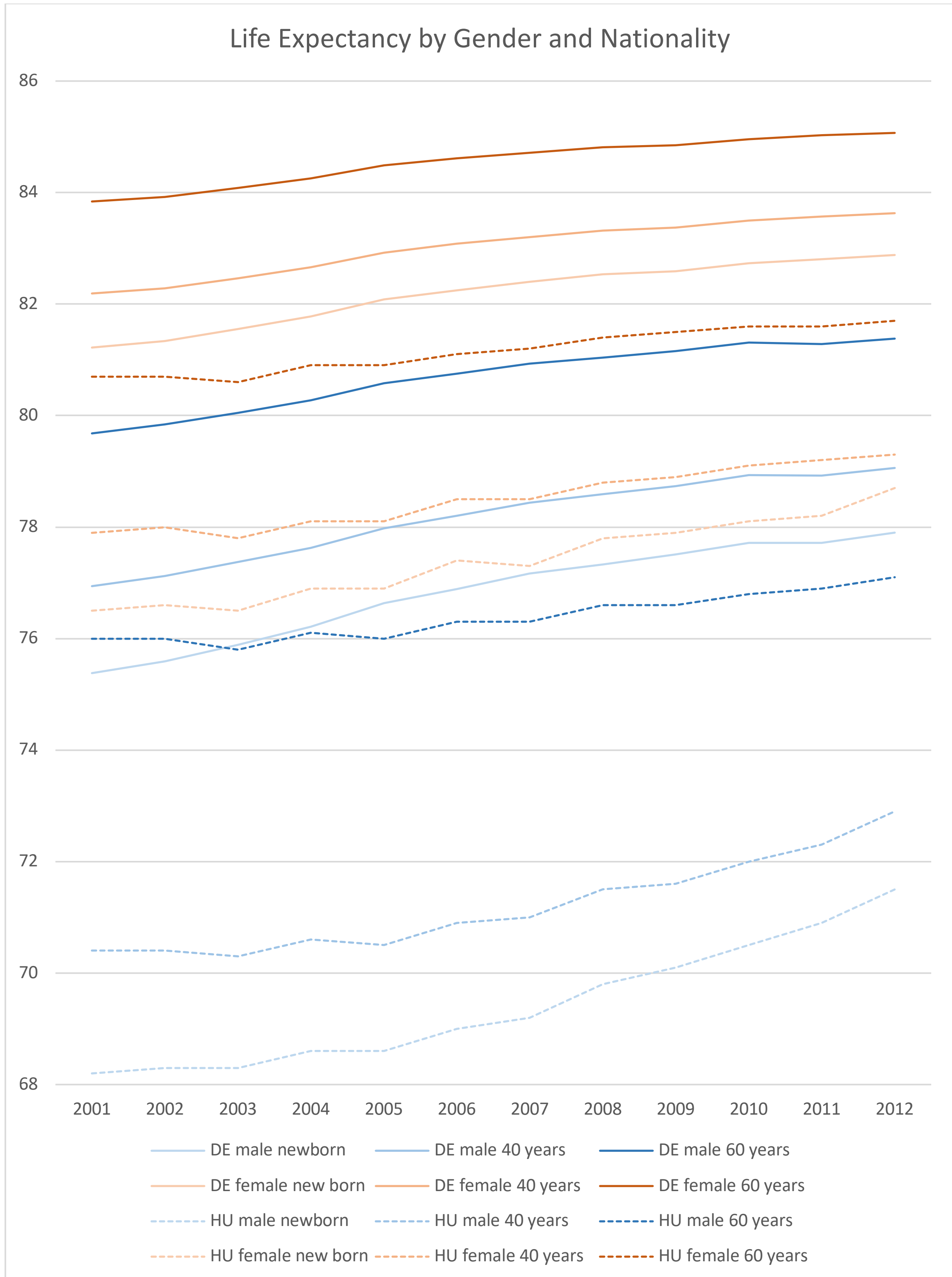

Figure 13: Life Expectancy by Gendre and Nationality

[283]

[283] *Gesundheitsberichterstattung des Bundes*, 2019; Vukovich et al., 2013

Health Care Market Compared

This section serves as a comparison of the two countries' HC standards. For the purposes of this comparison, the absolute values of HC expenditure were not focused on. Primary weight was put on the comparison of the percentage of the GDP, since living cost differs significantly, implying that absolute values might lead to misinterpretation. Figure 14 indicates, that in both countries the GDP percentage expenditure for HC has been growing. Another major difference is the income manifold of medical practitioners. If practitioners in Germany 3.5 -5 times the German average income, then in Hungary this number is less than twice the Hungarian average income (Appendix E). This fact could also explain why – as shown in Figure 14 – the GDP percentage spent for HC is significantly lower in Hungary than in Germany.

Health Care Expenditure Compared

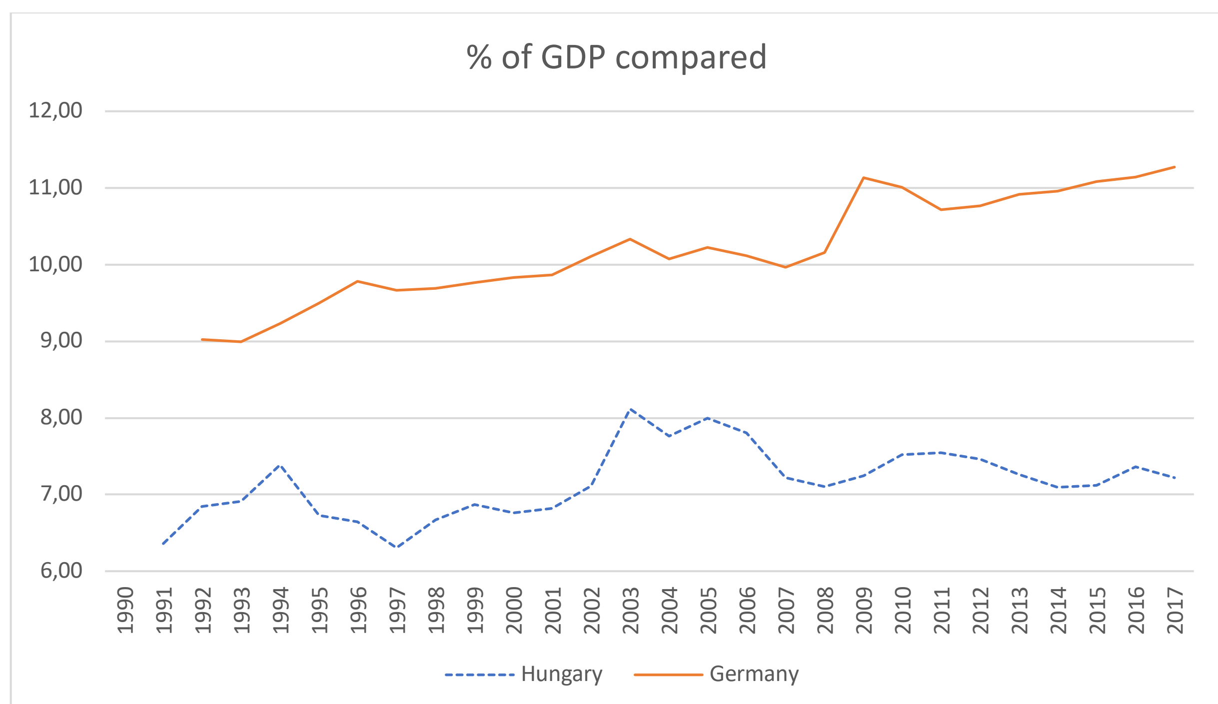

Figure 14: Health Care Expenditure Compared

[284]

Globally there is an increase in care expenditure. To avoid misinterpretation by currency fluctuations here, the share is compared as a percentage share of the GDP. For most countries the GDP share for HC expenditure has been increasing with some exceptions. Globally in all OECD countries this number has gone up from an 7.9% GDP share to an 8.8%

[284] OECD, n.d.

GDP share from 2008 to 2018. In all EU countries this number has grown from also an 8% share to 8.7% [285]. Even though some countries are missing in the OECD a significant trend can be recognized in the importance humanity devotes to HC. Figure 14 serves as a visualisation for the GDP percentage share of HC expenditure between the two countries.

Quantity of practitioners and Care Supply Rate Compared

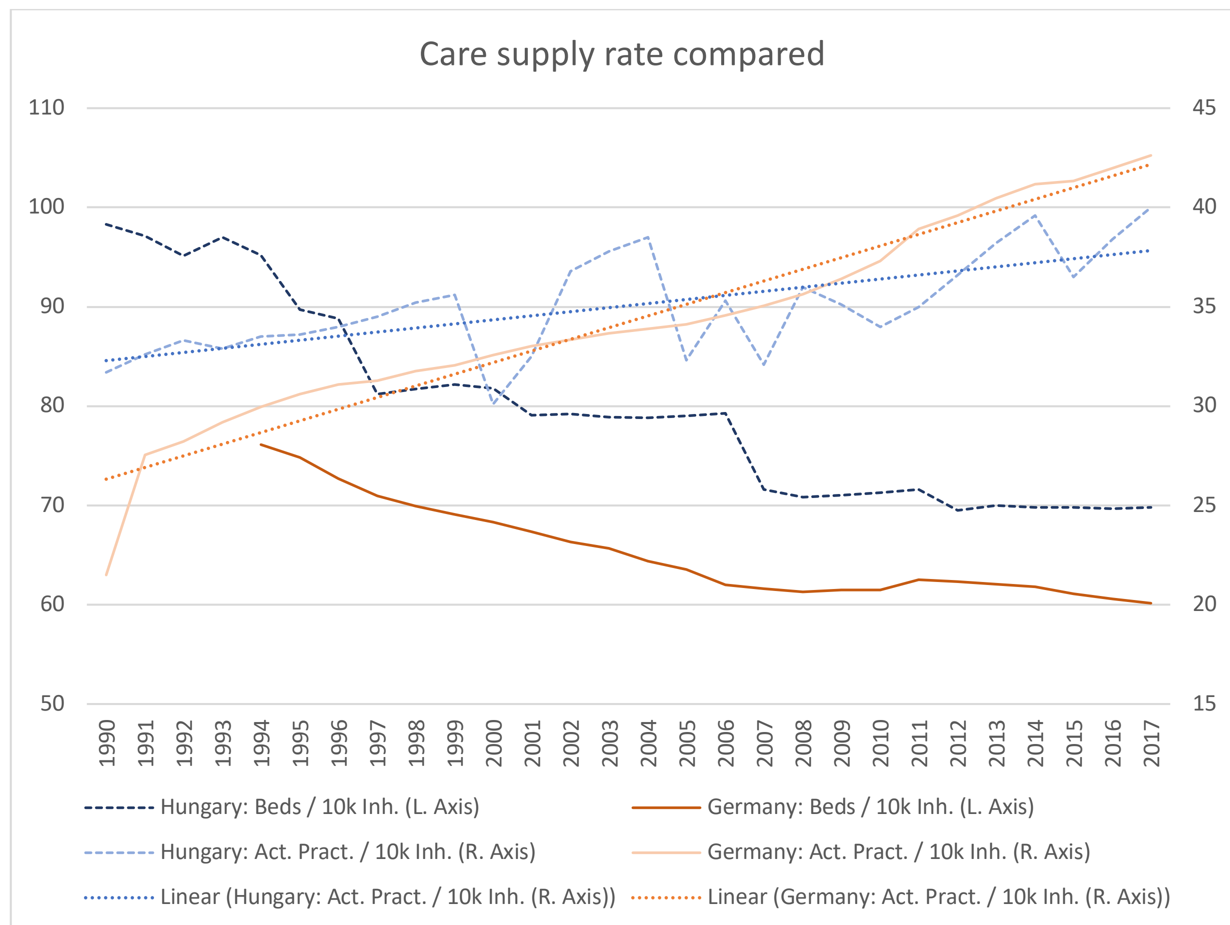

Figure 15: Care Supply Rate Compared

[286]

The values compared here are not absolute values. To get to comparative data, the number of beds and active physicians per 10000 inhabitants were compared in Figure 15. The visualisation shows, that in Hungary until about the millennium there were significantly and constantly more practitioners than in Germany. This over the last decade has changed with the quantity of practitioners constantly growing in Germany. However, the Germany number is slightly misleading as the average age of medical professionals in Germany has also been

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[285] OECD, n.d.
[286] OECD, n.d.

growing for many years, meaning that the country might face a practitioner supply shortage at some point soon. In accordance with previous statements that HC in Hungary is hospital heavy, the quantity of hospital beds in Hungary is higher than in Germany. Overall it seems that both countries – when focusing on the comparison of these factors – are developing in the same direction, though the quantity of practitioners in Hungary might stay lower than in Germany.

Oral Health Market Compared

A comparison between Germany and Hungary is not fully possible for OHC since the data that was accessible due to language barriers for the researcher was not as comprehensive about Hungary as it was about Germany. Looking at the quantity of active OH practitioners, as visualized in Figure 16, the graph clearly shows that Hungary still has less practitioners per member of society, but the level of care also here must be growing given that the quantity of OH practitioners per population member has gone up almost 50% since 2005 [287].

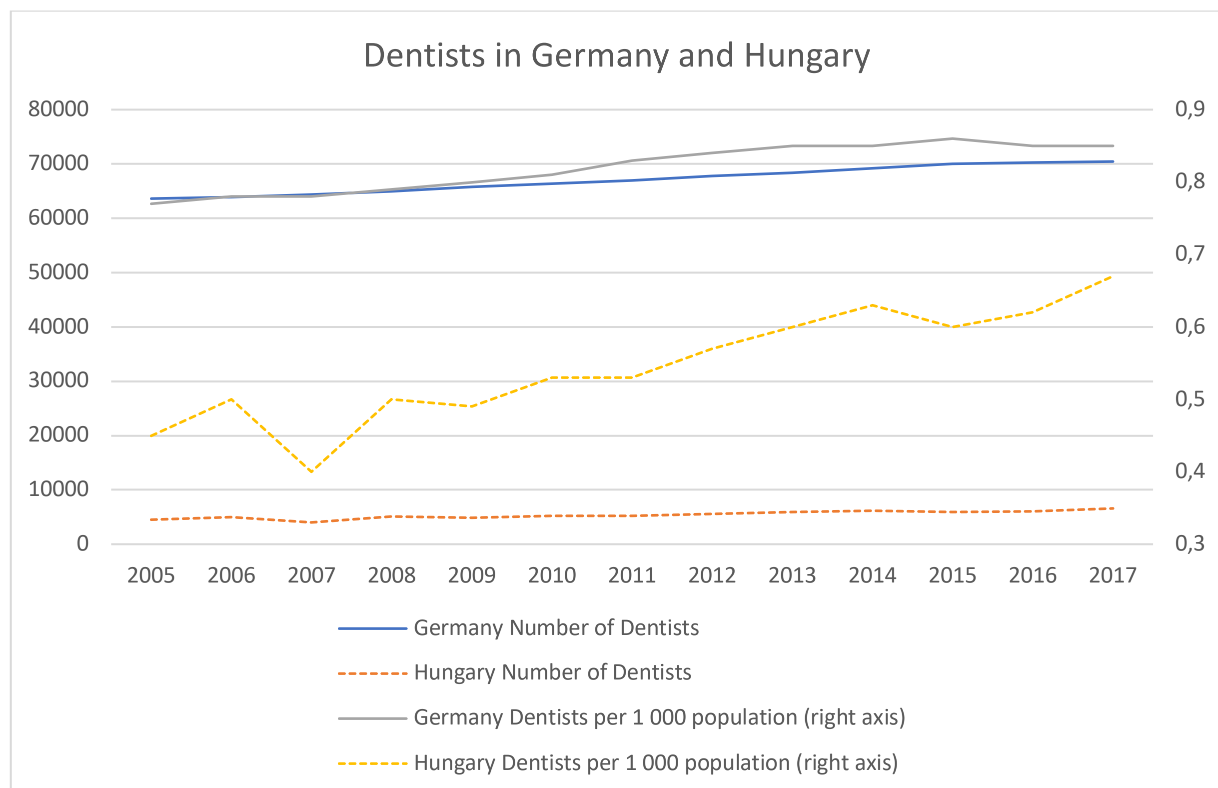

Figure 16: Dentists in Germany and Hungary

[288]

[287] OECD, n.d.
[288] OECD, n.d.

3.3.4. Future Developments in Health Care

A range of trends can be observed that are not limited to Germany and / or Hungary. As in many other industries digitalisation is entering the market and social enterprises and / or social entrepreneurship is growing in importance. Financing the growing expenditure has been mentioned on country level before, since the ways, countries face this challenge, is very specific, however, this can also be seen as a global challenge.

Digitalization and Self-Treatment

The number of digital HC support devices is growing steadily in Germany [289] and beyond [290]. Entrepreneurial developments in the HC market are revolutionizing and digitalizing medical education as well [291]. Digital support tools simplify the provision of matching treatments for doctors of a growing number of specializations [292]. Further, artificial intelligence (AI) is a growing trend in HC overall [293]. Implementations can be seen in any repetitive tasks, like radiology [294] or orthodontic aligner therapy [295]. A growing number of applications has also created the new trend of so called participatory HC [296]. In nations with a limited number of doctors or lower mobility this participatory HC allowed for significant improvements of care due to on-time diagnosis, without doctors to be physically present [297].

Social Enterprises

Next to the trend of digitalization, there is also a trend towards a more social approach in HC. The number of socially oriented businesses is growing steadily and – as such – these companies play a growing role in modern and entrepreneurial developments in the HC sector also in Germany [298]. Such social companies do not primarily focus on economically driven business goals, but either also, or primarily pursue social obligations.

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[289] Jörg, 2018, pp. 12, 18
[290] Birnbaum et al., 2015, p. 754; Imison et al., 2016, pp. 5, 10
[291] Burget & Hessel, 2018, p. 279; Schneider et al., 2018, p. 270 f.
[292] e.g. Barkhausen, 2017, p. 108; Katyal, 2018
[293] Jörg, 2018, pp. 12, 18
[294] Barkhausen, 2017, p. 108
[295] Katyal, 2018
[296] Boulos et al., 2011, p. 1; Hood & Flores, 2012, p. 619
[297] Blaya et al., 2010, p. 244; Martinez et al., 2008, p. 3699
[298] Zerth, 2018, p. 165

4. Research Approach and Methods

Next to literature research and statistical market analysis based on secondary data – as in the chapters above – this study is developing its results based on primary research out of qualitative and quantitative investigations. It was intended to – wherever possible – collect enough data to make relevant statements. Given, however, that business education is not given to new generations of medical practitioners, either at university [299] or private medical training institutions [300], and the already for years growing competitiveness of medical care services [301] especially at an outpatient level, this study is primarily undertaking investigations on an exploratory qualitative base. Its primary focus is the understanding of the knowledge gap of the practitioner and the development of theory focusing on factors that drive quantifiable results. In the interviews primary focus of discussions was put on the preparation to run a practice in form of a business administration module alongside medical University education. The module would serve to prepare running a practice and inform about changes of the business knowledge requirements in recent years.

The methodology of a research study can be classified as equally important as the basement foundation of any larger construction project and thus is paramount to the study's outcome [302]. Therefore, all primary research methods used are justified and explained in the subsequent paragraphs of this chapter. It is also explained which measures were taken to prevent that the researcher's personal involvement in the field biases the study. Given the very extensive referencing in the study and the disturbance of the reading flow by partly very long brackets in the text, it was decided not to adhere to international academic referencing standards with APA style references but to place typical in-text APA style brackets in the footnotes of the study.

4.1. Research Philosophy and Approach

Purpose of this research is to academically investigate the application and implementation of the beforehand discussed practice management theories today and to find out where the knowledge gap of practitioners is. Specific focus was placed on the human

[299] Guse, 2018, p. 136
[300] Schwörer & Wissing, 2018, p. 149
[301] Krampe, 2003, p. 391
[302] Hakim, 2000

factor, meaning the extent of knowledge about management strategy and the readiness to implement such theory in practice. Phenomenology "can inform researchers about the human realities of the practitioner's world" [303]. The meaning of data – so the interviewee's answers and the result of the FG – has primarily been analysed to achieve the previously developed objectives (see Appendix A), however taking non-verbal expressions into account.

Considering the massive influence of owners in owner-run practices on the implementation and application of management theories, these research subjects allow for the best of results. Only the use of phenomenology and the interpretation of the interviewee's answers in the first place, permitted for an intense understanding of the research subjects and consequently the development of the right type of questionnaire for the following second part of primary research.

Research approaches describe different ways of handling knowledge [304] and hence reality. The importance of quality research design for a study can be compared with the paramount value of the basement foundation when constructing a building [305]. Generally, two approaches can be identified for handling investigations: Deduction and Induction [306]. Firstly, in this research the existing publications have been deductively investigated as to understand the current extent of knowledge in the market. As a second step the current situation in HC in the to be investigated markets was captured. Based on the acquired knowledge, inductive interviews were conducted [307], that have given an opportunity to understand the subject of business thinking in OHC practices. The questionnaires closed framework is placed somewhere between induction and deduction given it is more testing what was discovered in existing publications and the beforehand conducted interviews. Some literature calls the here merged use of deduction and induction abduction [308]. The closing FG was also abductive, as opinions were asked and discussions channelled towards the solutions of the study.

[303] Ardley, 2011, p. 636
[304] Blumberg et al., 2011
[305] Hakim, 2000
[306] Babbie, 2008; Blumberg et al., 2011; Saunders et al., 2009, p. 61
[307] Greener, 2008, p. 16
[308] Saunders et al., 2009, p. 61

4.2. Research Strategy and Method

Methodological varieties with elements of qualitative and quantitative research have been applied in this study in order to be able to explore the field and get the most detailed view of the current practice and the current extent of business knowledge in the field [309]. Only by going as far as applying phenomenology [310] – meaning that gathered data ,where possible also of observations – was interpreted, it became possible to fully comprehend and translate the current extent of business thinking within the researched medical practices and teams. This technique was previously "used in organizational […] research in order to develop a perception of complex issues that may not be immediately implicit in surface responses" [311].The meaning of data [312] was primarily interpreted and investigated to research the extent of current business thinking in small to medium size practices in OHC and the changing business and administration requirements in the medical field. Due to the study's scope, not all perspectives on the topic were given equal importance in the studies investigations. Particularly more observation effort has been put into the research of practice owners and / or doctor practice managers due to them also being economically responsible for the success and the continuation of their clinic / practice / unit. The resulting insight of this group permitted differentiating between personal opinions and job and or experience-related answers. The semi-structured interviews consisted of start off questions and predefined discussion areas. Follow up questions and discussions remained topic-related and thus were comparable between attendees.

4.3. Research Type and Design

After recognition of type and content of existing publications and also the HC system in the investigated countries and their backgrounds, some existing data about the HC markets was analysed to grasp trends and developments. In the previous chapters existing publications were reviewed and secondary data was analysed as in objective one through three. The primary research was composed of four parts as in objective four through seven (see Appendix A). First, out of the existing publications a semi-structured qualitative interview was

[309] Saunders et al., 2009, p. 146
[310] Ardley, 2011, p. 636
[311] Goulding, 2005, p. 301
[312] Hussey & Hussey, 1997

developed, allowing for the detailed inside view of a limited number of 27 OH practitioners in Germany, 16 practice team members in Germany and 14 OH practitioners and or practice managers in Hungary. The information gathered out of these interviews can be classified as a pre-test, which supported the development of a structured quantitative questionnaire that was handed to a sample of practitioners in Germany via email. As a third step some paradoxes that arose out of the questionnaire and seemed contradicting in comparison to interview results, were tested again in a second round of interviews, however talking with only five practitioners overall. Last but not least an FG out of German practitioners came together to discuss the solutions that were derived to meet the growing need of business thinking in OHC. The four-step process is visualized in Figure 17. The following sections explain the research steps one by one and thus fully explain the primary research process.

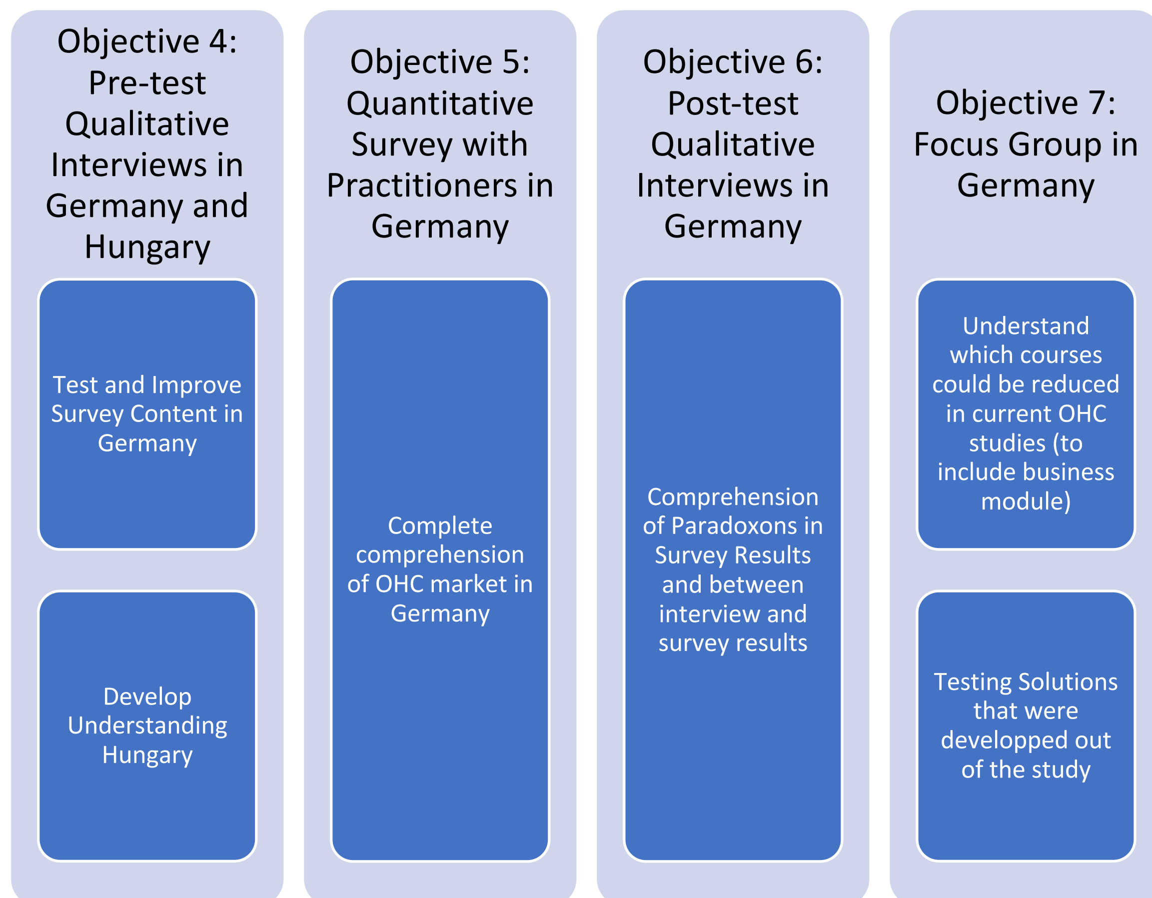

Figure 17: The 4-step Primary Research Process

(own development, see Appendix A for all Objectives)

4.3.1. Pre-Test Qualitative Interviews with Health Care Professionals

The qualitative interviewees for the purpose of result validity were clustered in different groups (see Table 3). It was made sure to get practitioners to participate in the qualitative part

of the study as much from urban as from rural areas. This structure was selected due to the assumption, that practices with more than 10 members of staff would eventually be more driven by business thinking and business goals, than practices with less staff members. Further, it was assumed, that practices in cities would also need to have a more business driven thinking. The same cluster was applied for practice teams, however, due to participation willingness, it was not possible to get the same number of practitioners from all cluster groups. To allow for a logical understanding a coding has been used as shown in the first part of the table, which serves as a legend. The interview questions are shown in Appendix O and Appendix P.

Table 3: Interviewee Categorization: Practitioners and their Teams

P	Practitioner (Germany)			
A	Assistant / Practice team member (Germany)			
H	Hungary /Hungarian			
M	Manager			
U	Urban			
R	Rural			
S	Small			
B	Big			
Germany/Hungary	**S**maller than 10 employees **U**rban	**B**igger than 10 employees **U**rban	**S**maller than 10 employees **R**ural / Suburban	**L**arger than 10 employees **R**ural / Suburban
1. German **P**ractitioners	- German **P**ractitioners - **U**rban Practices - Team **S**maller than 10 people **PUS1-7**	- German **P**ractitioners - **U**rban Practices - Team **Bigger** than 10 people **PUB1-5**	- German **P**ractitioners - **R**ural Practices - Team **S**maller than 10 people **PRS1-6**	- German **P**ractitioners - **R**ural Practices - Team **Bigger** than 10 people **PRB1-9**
2. Germany **A**ssistants / Practice team members	- **A**ssistant / Practice Team members - **U**rban Practices - Team **S**maller than 10 people **AUS1-3**	- **A**ssistant / Practice Team members - **U**rban Practices - Team **B**igger than 10 people **AUB1**	X	- **A**ssistant / Practice Team members - **R**ural Practices - Team **B**igger than 10 people **ARB1-12**

3. **H**ungarian **P**ractitioners	- **H**ungarian **P**ractitioners - Team **S**maller than 10 people **HPS1-4**	- **H**ungarian **P**ractitioners - Team **B**igger than 10 people **HPB1-5**
4. **H**ungarian Clinic **M**anagers	- **H**ungarian Clinic **M**anagers - Team **S**maller than 10 people **HMS1-2**	- **H**ungarian Clinic **M**anagers - Team **B**igger than 10 people **HMB1-3**

4.3.2. Quantitative Survey with Practitioners in Germany

For the quantitative questionnaires, only practice-owners were addressed. Since the majority of questionnaires was sent out to practices, it, however, cannot be excluded, that some of the questionnaires were answered by practice team members instead. Still, if it happened, the questions were developed out of a combination of the knowledge acquired through reading existing publications and the answers given in the different interviews that were conducted beforehand. Please find a sample of the questionnaire in Appendix Q (German) and Appendix R (English).

In Germany in the year 2017 there were overall 95.189 listed dentists out of which 72.122 were active at the time. 57.110 of these dentists are running an own practice – a number that is expected to decline in the upcoming years. [313]. Due to a nevertheless very limited answer rate of less than 1% when cold calling clinics (112 cold calls) and asking for questionnaires to be sent and returned (1 respondent), it was decided to send questionnaires via email without prior announcement. The email excluding prior announcement was sent out to 13.609 dentists in two mailings with one reminder. The survey was opened 550 times. 486 subjects answered the questionnaire out of which 469 completed it. After excluding answers of respondents that – according to the combination of age group and approbation year – had their approbation prior to the age of 24 years (not realistic to graduate earlier) 458 answers were used for the analysis in this study. Thus, at a population size of 57.110 active dentists with an own clinic at a confidence level of 95%, the confidence interval is less than 5% which is fully appropriate for the development of consulting guidelines and study program content.

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[313] Bundeszahnärztekammer - Arbeitsgemeinschaft der Deutschen Zahnärztekammern e.V. (BZÄK), 2018

4.3.3. Post-Test Qualitative Interviews with Practitioners in Germany

Given the fact that some of the results in the survey turned out to be different than expected after the interviews, a small round of sample post-survey interviews were conducted, talking with five practitioners. Some of these were part of the initial round of interviews, some of them were new to the study. Goal of this last round of interviews was to understand, whether in the initial interviews some structural approaches were misunderstood, especially given that phenomenology was used. The interviewees in this follow-up round of interviews are shown in Table 4.

Table 4: Post-Test Interview Coding

R	Rural
B	Big
Follow-up	FU
Interviewees	- Rural location - Team bigger than 10 people **PRB1, PRB3**
	- Follow-up interviewees **FU1-FU3**

4.3.4. Solution Evaluation Focus Group with Practitioners in Germany

As a very last part of the primary research in this study, a focus group was confronted with three topics: First, the potential set up of a consultation process – as much for new practitioners that are to found or taken over, as for existing practitioners that face significant improvement potential – was shown and discussed with practitioners. Second part of the focus group discussion was about University education, potential OHC courses to be left out and the set-up of a potential curriculum for OHC business administration. Third and last part of the primary research with the focus group pushed the discussion towards potential forms of collaboration in a bigger practice. This part of the study was more planned to be of exploratory nature and thus does not have statistical validity. Still the outcomes can enhance future research and also be of interest for the development of University curricula including business education in OHC.

4.4. Presentation of Results

Other than in the visualisation in Figure 17, the results are not being presented in four but rather in three chapters. This was perceived as logical since the first three parts of the research are very interconnected. Thus, the results are presented and discussed in a more grouped way as shown in Figure 18 – however, with a clear split of pre- and post-test interpretations. The fourth step of the research is a stand-alone chapter, since it is not directly linked to the survey and since this last part is more based on an evaluation of derived solutions, rather than the development of the solutions as are chapter six and seven. To give the study more structure it was decided to keep theses chapters separate.

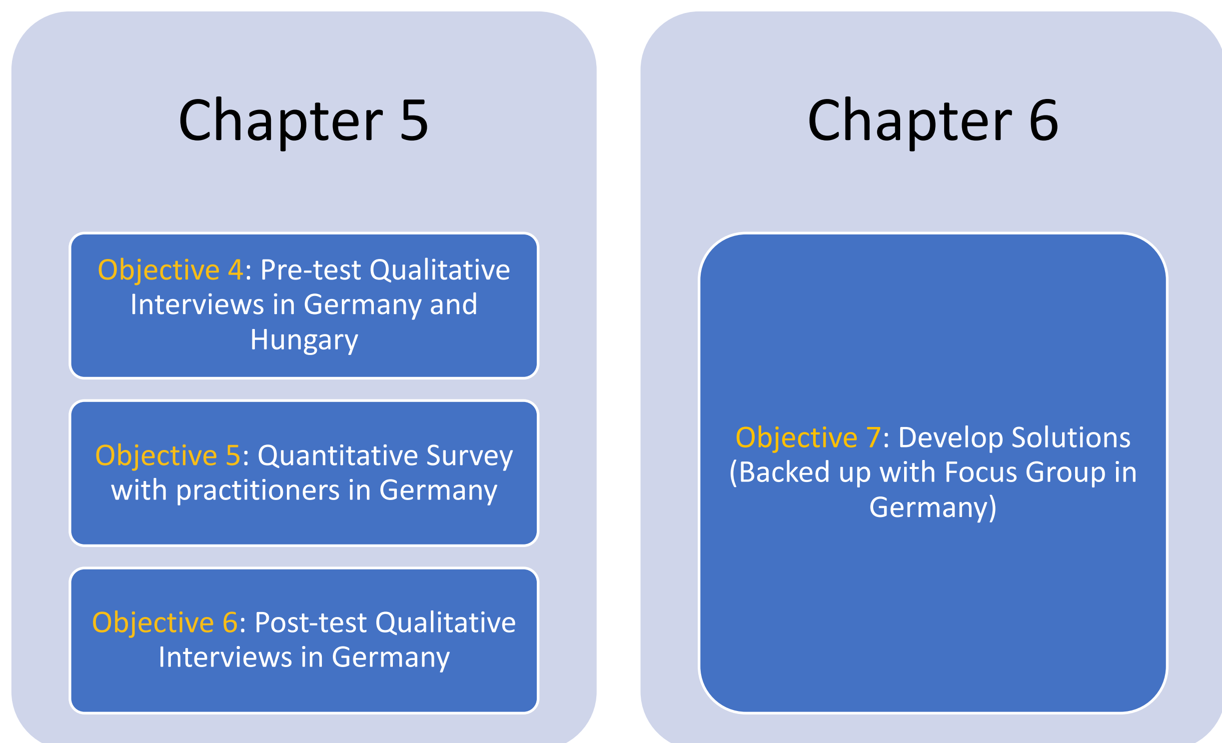

Figure 18: Structure of Result Presentation

(own development, see Appendix A for all objectives)

4.5. Bias and Limitation

Given the quantity of interviews and the participants' OHC professional experience of between five and 37 years for interviewees and one and 37 years for questionnaire respondents, the findings allow for validity with limited bias. As to further decrease the interpretation bias by the researcher, any follow-up questions in the interviews were asked in an unbiased way. The questionnaires were handed out to a larger sample, that is strategically

valid. As for the revenue answers, a social desirability bias may harm the answer validity [314]. The potential impact of such bias was not included in the evaluation of the results, as it would have exceeded the scope of this research. The evaluation of the survey results, however, has shown that – all pre-testing considered – some additional and / or different questions in the questionnaire might have further improved the quality of the study outcome. The results of this project are a first step to academically approach practice management. Given the fact that practices in only two countries were investigated only extremely limited over-regional generalization is possible.

4.6. Conclusion on the Methodology

HC management in the complexity of the more business-driven economy, including the constantly changing regulations regarding health treatments and the structure of HC provision, is a very multipart issue. To get full understanding of the complexity of this field and to grasp the issues and challenges OHC practitioners face, semi-structured qualitative interviews with practitioners in Germany and Hungary and quantitative questionnaires with practitioner-practice-owners were conducted in Germany. Paradox research results were controlled in post-test interviews and potential solutions developed and discussed in an FG. The approach via the deductive and inductive research prism, gave the opportunity to investigate the relationship between a range of variables (explanatory) in the current economic context. Given the restraints in time and funding for this study, the chosen methods were a valid and result-oriented way to obtain the understanding the research objectives (Appendix A) are aiming for. Some of the sections – chapters, subchapters & paragraphs alike – may seem relatively short. Looking at the structure of the entire study it was decided to maintain the short sections in order to allow for a structural comparability (see Table of Contents, p. iii) between different parts.

[314] Fisher, 1993, p. 303

5. Interviews, Survey and Follow-up Interviews

The research findings of this study are presented in several chapters and discussed alongside. As explained in the methods section, the primary research consists of four parts: interviews in Germany and Hungary, a survey in Germany, follow-up interviews in Germany and a focus group (FG) in Germany. This first of three results and discussion chapters covers the interviews and the survey. The first section of this chapter is about the results of the conducted interviews as much in Germany as in Hungary. The second part discusses the results of the survey which due to barriers of language and funding were conducted in Germany only.

5.1. First Understanding: Structured Qualitative Interviews

This first primary part of the study served as an exploratory understanding of the field of OHC management in Germany. In this part practitioners and practice-managers in Germany and Hungary were interviewed. Further in Germany – to gain deeper insight – practice team members were also talked with. The interview part of the study served as an exploratory analysis to recognize where quantitative research needs to be going and thus does not attempt to achieve statistical validity, but serves more as a question development and field comprehension part.

5.1.1. Interviews Germany

Practitioners

As presented in Table 3, an overall number of 27 OHC practitioners was interviewed for the purposes of this first part of the primary research. The interviews had prepared questions, however, follow-up questions were asked depending on the type of answer given by the professional. This resulted in an interview length of between 30 and 120 minutes. The practitioner interviewees were clustered in four groups depending on the size of their practice (less or more employees) and depending on their location (urban or rural). Urban for the purpose of this study was defined as location in a city with more than 50.000 members of population. Adhere to some structure was perceived as very important, even centrally located practices in cities with less than 50.000 inhabitants were classified as rural. No matter the location however, no differences were found. It was equally likely for practices in cities (PUS1, PUS3, PUS4, PUB3, PUB4, PUB5) as in more rural areas (PRS1, PRS2, PRS3, PRS5, PRB1, PRB3,

PRB4, PRB5, PRB7) to face challenges e.g. in staffing and recruiting as in other fields. Therefore, the question about location was left out in the questionnaire at a later stage. Significant differences existed between smaller and bigger practices, the bigger ones typically had more formalized controlling procedures than in the small group. Therefore, a question about practice size was kept in the questionnaire. The interviews also intended to cluster practitioners depending on their degrees (e.g.: dentists or orthodontists). However, this differentiation did not result in any differences in management issues in the sample. Given however, the different revenue and profit potential of some dentist specializations (e.g. orthodontists or oral surgeons) the question was left in in the questionnaire to see if challenge perception altered for specializations. Given that size did make a difference for how which challenges were tackled, depending on the size, this was left in. The owner manager of one smaller practice (PUS2) had one single employee and was clear that she would never want more than two again, since handling these people would be a devastating challenge. It turned out, that 15 (59%) of the interviewees founded their practice. 75% of these practice owners (11), however, stated, that they would not found a practice today anymore from scratch, since the challenges have become much more complex and since preparation during studies was not given to them at all. Only PRB3, PRB5, PRB9 and PUB3 would go for a foundation from scratch again. However, all three agreed that relevant preparation was a requirement for the challenge. Since the answers of PUS5, PUS7, PRS4 were very strong against an opening from scratch, a follow up question arose in the interview about whether they would be ready to face the challenge at adequate preparation during studies. PUS5 and PUS7 were positive whereas PRS4 kept his clear no. The experience of all interviewed professionals was between one and three other practices. All agreed that they learned how to run a practice when working in another one. Of the overall of 27 respondents, only seven had participated in a non-university preparation training that lasted longer than two days. Only PUS7 mentioned the quantity of patients, to come to the practice, to have been one of the biggest challenges at opening the practice. For all other practitioners the existence of patients was more or less taken for granted. PUS2 explained that marketing wouldn't bring a thing. If it wasn't very specific marketing, it would always cost exactly what it brings, which would not be goal-oriented. PUB2 explained that marketing became an issue over time, but was not a topic in the beginning when he opened the practice. None of the subjects understood, that CI would be more than just colours and design. Corporate communication or behaviour was not part of

the understanding of any interviewee, which is understandable considering the team size of a practice. Therefore, in the questionnaire the question about CI is primarily drafted towards design topics. A challenge, that each and every one of the practitioners mentioned, was handling employees. PUS1 took over the clinic. First thing she – so she explained – had to do to establish herself, was to fire all old employees, because she could not handle the attitude of things not to change. The practices that were found and interviewed here were all on the market for a minimum of 9 years, most more than 20 years. The challenge of regulations has only become a very complex topic over the last 10-15 years, so PRS1 and PRS6. Thus, at foundation to most interviewees this did not impose a major difficulty. The administrative duties were perceived very different by different colleagues. This seemed to have less to do with pure size, but much rather with the way of structure and organisation of the company. Practices that had more operational standards such as the one of PRB4 and a less detailed-involved owner-manager generally did see the administrative complexity as a more solvable challenge. PUS3 who had harder times in delegating duties had much bigger difficulty to adhere to the modern administrative duties. All respondents of the study fully agreed that none of their medical university training involved preparation for any management or people skills which in practice management is the skill to have. PRS4 explained that people related skills are necessary for any practitioner – no matter if running an own practice or not – since even handling patients is more and more of a task itself. People skills would be paramount. Several of the participants knew about a range of course programs, offering educational services to practitioners and their teams. Consensus, however, was, that all programs and courses serve to extinguish a fire rather than prepare for the challenge upfront. Only PUB4 planned revenues. Other than that, no practice would do a clear revenue planning or profit prognosis. About a third of the practices used some statistical tools to understand their practice, but not even a single practice could explain what the most profitable service was. Any questions that way, were left out in the questionnaire, since reaction was very perplexing. Some of the practitioners that participated (e.g. PRB4, PUS2) seemed to have a strong business drive and high economic expectations, but such thinking was out of the imagination of these practitioners. Their duty was very strong on quality treatment rather than business drive. PRB4 and PRS3 however, had a drive on selling the better, respectively more pricy treatment, rather than the one enough to treat. But even this was more of a "gut feeling" drive, instead of a calculated and strategic move. All practitioners agreed that quality

treatment would be the way to go and recommendations by satisfied patients the solution. No matter, city or countryside, the power perception of online recommendation tools was very different. Some practitioners (e.g. PRB4, PRB6, PUS5) actively worked with generating positive recommendations, others ignored the entire online world (e.g. PRS3, PRB7). PRS5 explained that they had enough patients and could choose the good ones, they wouldn't want more. More than 75% of the practitioners recognized the power of such tools. PUB2 mentioned that it was all statistics, but still annoying how much of a long-term damage one bad shared opinion can have.

None of the practitioners, not even the one with more than forty employees would be capable to explain any leadership style. All leadership was self-developed and was not strategic or trained. None of the practitioners knew about coaching culture and only one had delegated parts of the non-medical decision making. PRB4 had employed a practice manager, but even this delegation was perceived as rather challenging. PUB5 who was involved in an orthodontic group with several branches saw recruitment and keeping staff as the biggest challenge. They would always find enough employees, but keeping them would be the challenge. They would stay for a while, but especially practitioners would fluctuate constantly. Training staff members in non-medical or non-business duties was only an option to one practitioner: PUS7.

US2 clearly stated that tasks such as settlement of accounts would be hers no matter what, because no one would do it as well as she herself. In turn PRB1, PRB2, PRB3, PRB4, PRB6, PRB7, PRB8 and PUB1, PUB2 and PUB5 all had delegated this task to team members. According to PRB3 and PRB8 some controls of the account settlement quality would be a good time investment. PRB8 explained that the solution to completion would be the delegation of responsibilities. PRB8 – who had 48 team members in her clinic and dental laboratory – said that it would not even be possible to do it herself. Her qualities would be elsewhere. She had a close collaboration with an accounting office that regularly implemented controlling procedures including controlling of ideal account settlement. Her administration employee would be trained depending on the result of these controls and the frequency of unannounced controls would vary upon previous results.

Regarding orders PRB6 explained, that product orders are only optimized for pricing. Changing stock and entire products would be too much of a challenge since not all products

would be compatible and thus follow up / switching costs for change and eventually even staff training would exceed savings from product switch.

Talking with PRB3 revealed, that finding adequate members of staff would be one of the biggest challenges, especially when considering growing the business. The education, a dental assistant in Germany has to go through, takes normally three – with exceptions sometimes two years. According to PRB3 only very recently the chambers of practitioners unofficially decided, that general practitioner assistants, for the pure reasoning of limited supply of dentist assistants, can be employed at dentists to provide assisting services. Given this change from a supply side, the assistant shortage has been reduced, which however results in significantly higher training needs of the potential work force on the market.

Figure 19: Importance of Business Success Factors according to Interviews in Germany

(own development out of primary research, exemplary a table is in Appendix S with individual information for every participant)

Four of the practitioners had installed workforce databases in their practices (PUB1, PUB2, PRB3, PRB4), none of which were small. Two of the small practices had kept every application for more than twenty years, but none of it was used in a database style. Even reuse was not really considered an option. PUS6 explained that there must have been a reason why the applicant was not chosen for the first time. Using newspapers was the best and cheapest way for recruiting. PUB4 worked with a recruiting agency, however, that was more of an exception.

All but practitioner PRS3 agreed that the data protection regulation was unnecessary and added unnecessary complexity and irrelevant costs to running the business. PRS3, who had family connections in the IT industry, explained that more data protection was required for decades. Still he explained that what happened as a consequence of the regulation was not result-oriented and did not do much to protect data. According to him the unprotected mass data on practice servers would need protection rather than adding non-result-oriented processes to data communication. PRB5 and PRS2 independently explained that the regulation was just another measure to reduce profits of practices and move earnings away from the practitioner. Figure 19 visualizes the importance of success factors in a graph. For full comprehension a table is in Appendix S with all single values from every participant.

Practice team members

Overall 17 members of 4 different practice teams served as subjects of this exploratory understanding (see Table 5 to see which practice teams were involved). Discussion with and observation of these teams has shown, that not all practice teams or practice team members agreed with the extent of managerial implementation the practitioners – particularly owner-manager-practitioners – have seen in their practice. Due to the length, limitations of the study, not all details of these interviews are shown, but much rather a focus has been placed on important take-outs.

Table 5: Practice Teams

PUS5	AUS1-2
PRS3	ARS1-3
PRB1	ARB1-9
PRB5	ARB1-3

Whereas PUS5 was very clear that result orientation and measurement would be very important in their practice, AUS1 and AUS2 did not see result definition as an important challenge in their practice. In the team of PRB1 there was full clarity about goal measurement in practically almost the entire team of nine talked to employees (only ARB6 did not know very much about goal measurement, however, she was an apprentice training to become an assistant and it would just not be part of her duties to be involved in such goal-oriented matters). The mere existence of this question mark in some practices, however, for the later on used questionnaire (see Appendix Q and Appendix R) caused, that goals and their measurement were asked about in detail in question 10 and then in general in question 16. If question ten showed that goals are of mediocre importance and were classified as very important in question 16, then the importance levels of other aspects touched in question 16 were looked at in a separate group in the later result analysis.

As shown in the previous section, several of the talked with practitioners have seen staff leadership as a significant challenge. In the team of PRB1 seven of the nine talked to employee perceived staff leadership as a well-solved topic in their practice. The team of PRS3, however, as much as PRS3 himself saw that staff leadership and communication were the hardest to solve topics in their practice. Staff training in this team, however, was not seen as particularly important. Thus, the questionnaire (see Appendix Q and Appendix R) involved control questions including question 9 and 16 (staff leadership), question 13 (staff training) and question 14 (areas of responsibility / coaching culture). That way the questionnaire is supposed to allow best understanding of the practitioner and checks whether leadership is truly solved in the practice.

Given that the team of PRB4 – especially the receptionist – ARB3 – had a stronger realization of patients leaving than PRB4 himself, question 18 of the questionnaire addresses dental tourism with detailed follow up questions which might result in the practitioner researching the matter for personal knowledge, rather than answering straight away.

As none of the assistants, in the talked with practices, had as full of an understanding of all processes in the business as even the employed non-owner-manager-doctors, the questionnaires that were handed out at the later stage of the research addressed practitioners. This way it was made sure, that not only most information was received, but also that a higher number of practices participated in the study.

5.1.2. Interviews Hungary

Figure 20: Interview Results Hungary

(own development out of primary research)

The structured qualitative research in Hungary – due to limitations in funding – was mainly pursued in Sopron, where the researcher was present for meetings at the research institution. Additionally, some personal contacts allowed for telephone interviews with professionals in other parts of Hungary. Overall in this research about Hungary, 14 Hungarian OH professionals were interviewed. Due to some of the practices in Hungary to be organized not as doctor-owner-run practices but more as business optimized companies with employed practitioners, some of the interviews were also pursued with management professionals – in such case primarily women in charge of running the business side of the practice. For purposes of giving some structure to the respondents the interviewees were grouped as shown in Table 3. It is to be mentioned here, however, that such grouping may lead to misinterpretation since

respondents in some groups are very different in the understanding of their tasks and duties. Even though no significant focus has been placed on the gender of the respondent, it shall be mentioned, that eight of the nine medical professionals were male and that four of the five business professionals were female, no matter their age. Only one of the interviewees was below forty years old, a female business professional (HPB2). Figure 20 shows which aspects seemed important to Hungarian subjects according to the interviews. Interestingly it was significantly harder to find public listings of practitioners in Hungary than it was in Germany. It might be linked again to the language, however, the subjects placed significantly more importance in the interviews to offline personal recommendations than the German practitioners eventually did.

Out of the small number of respondents in Hungary, it comes out, that ownership and medical profession are to be treated separately. Whereas four of the six interviewees of practices with less than ten employees were working in practices that were owner-run, only one of the employees that was working in a practice with more than ten employees would work in a business that was owned by medical professionals only. This implies that ownership – as soon as the business turns significantly profitable – tends to be treated separately from medical management. At larger size of the entire company (not only dentistry but also other non-medical business offers) different legal forms including the AG were implemented.

Due to language barriers and the geographical focus on primarily Sopron and a bit Budapest, all subjects that participated in the interviews were addressing at least part of their services to tourists. The international customer would be much more lucrative, however came with the challenge that across border financial claims are not enforceable, a challenge especially addressed by HPB4 and HPB5 working in Budapest but also by HPB3 who had experience in both cities. It seems that this is a challenge that is more present in the capital, since none of the practitioners nor management professionals based in Sopron or not experienced in Budapest mentioned that as a challenge or specific duty to be taken care of.

Eleven of the fourteen professionals worked in practices which were founded either 1990 or later (HMS1, HPB1, HMB3 were found earlier). About 40 % of all participants worked in companies since their foundation or were somehow actively involved in the foundation of the clinic. The foundation of a practice seemed to be less of a challenge to the research subjects than the continuous monitoring of the market. No matter the size of a practice, duties were always split in a way for practitioners to only secondarily be involved in non-medical

decision taking and challenges. Even in the smallest practice with only two team members (including the owning doctor), the practitioner would do nothing but treat patients (HPS3) – his assistant had to care for all other duties from appointment planning, over material ordering to marketing and also treatment assistance. To all participants of the study (but HPS3) it was totally clear, that goal planning was crucial, business processes are a requirement for success and that reporting needs to be monitored closely. Apart from HPS3 and HMS1 all clinics were totally clear on the need of monthly report meetings to meet business goals. If business goals were not met, none of the clinics – according to the research subjects – would decrease staffing size, however understanding of the reasons for change would be paramount in order to adapt behaviour and succeed in the near future. HPB4 explained that it was crucial to understand the reasoning of changes directly in order to be able to react to the market. HMB2 explained that business would always go down between July and September which would be a normal yearly cycle. In July because of holidays (but their business would keep open since working with 9 practitioners overall), in September because of wine harvest. Their customers in these months would have another focus. Since the employees in HMB2 prefer to take holidays in other seasons of the year, taking holiday in July would even be rewarded with an additional day of holiday. The majority of practitioners (86%, all but HPB1, HMB3) saw a continuous increase in demand and constant growth since the millennium. HPB1 and HMB3, however, were tackled by the increase of cheap flights to Budapest and saw many of their potential clients disappear there. HPB3 explained, that in his experience, working in Budapest came with the challenge of significant timing limits from the side of the customer who usually had booked return flights and no (planned) financial means for changes. HPS1 and HPS2 explained that marketing would not be a typical tool to use. In accordance with HMB2, the strongest tool for getting patients would be quality care and thus WOM. HMB1 explained that the network of their satisfied patients would be large enough for their practice to grow every year for decades. The use of beyond-border marketing measures - in fact - got HMB3 according to own information into a severe law suit in Austria since his marketing would not adhere to Austrian laws. No investigation about Austrian HC marketing laws nor their cross-border-breach-potential was pursued in this study. The comment of the subject is depicted but the case not screened.

All medical subjects agreed that no part of their studies prepared them at all for the challenges they face in business. The business requirements were mostly learned on the go

and in many cases professionalized with management / business employees. All practices but HPS3 were run as a business with operational standards and clear business goals. Phenomenology allowed for the understanding that the majority of subjects stressed payment terms prior to treatment.

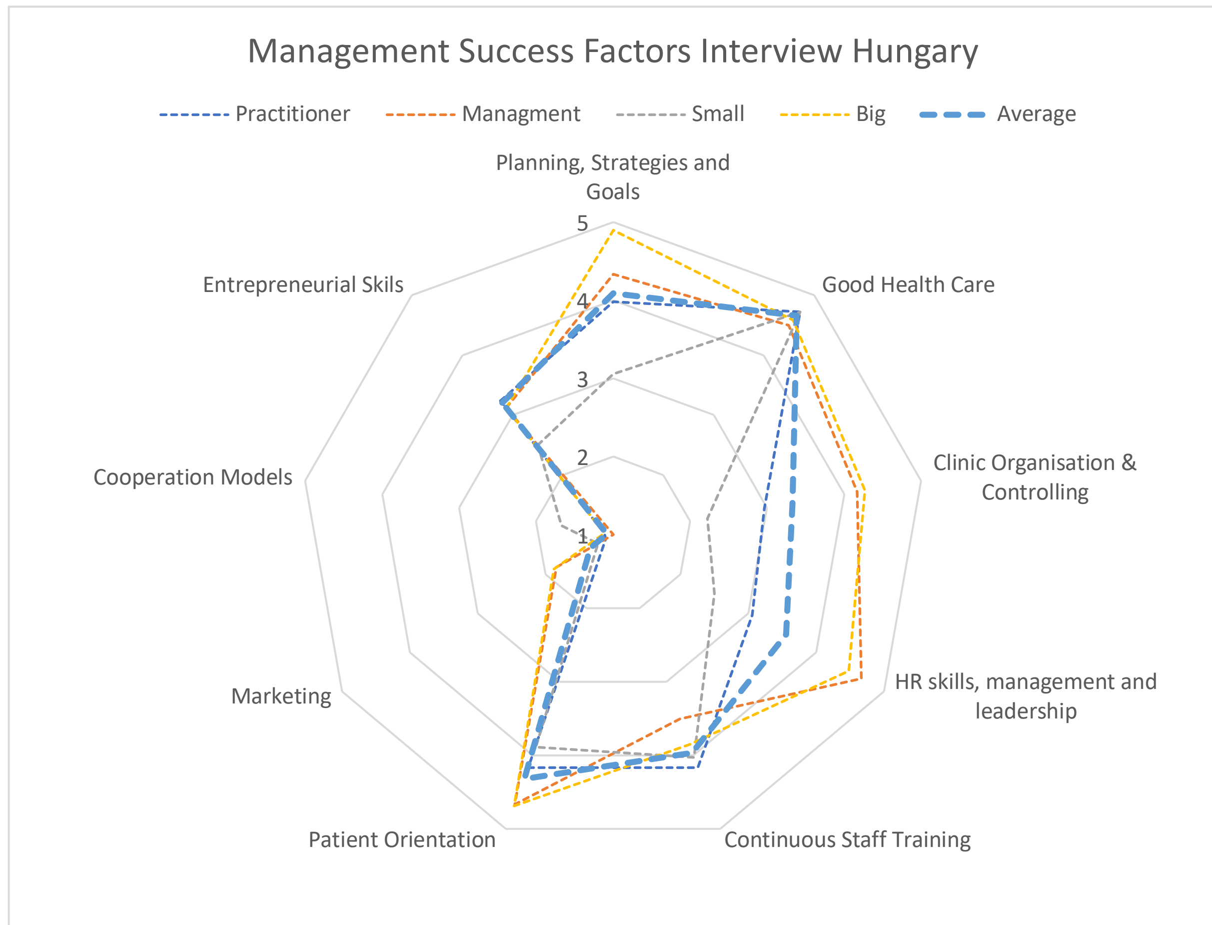

Figure 21: Importance of Business Success Factors according to Interviews in Hungary

(own development out of primary research)

In order to allow for an understanding of the importance of the business success factors described in existing publications, the subject's answers were translated in a scale from one to five for the eight factors found in the literature. Given that nearly all practitioners focused on the importance of patient orientation and saw marketing rather as a less important tool, the point was split in marketing as one point and patient orientation as another. The average was calculated for medical professionals, business professionals, for smaller and bigger practices and for all respondents as visualized in Figure 21. The visualization, however, does not grant statistical validity. According to the organization for economic co-operation

and development in Hungary there are currently 6589 practicing dentists in 2017 [315]. Assuming that every subject's opinion (no matter if practitioner or management professional) would represent the opinion of one practice, then the confidence interval would still be at 26%. Thus, even the strongest outcomes in this qualitative investigation can only be seen as trend and not as a reliable result. Nevertheless, it can be said, that the quality of care, continuous staff training and patient orientation seem to be important in Hungary.

5.2. Detailed Analysis: Quantitative Questionnaire Germany

This section serves as an analysis section for the questionnaires addressed towards HC professionals in Germany. The analysis is split in three parts: First general understanding, second the actual success drivers – so which actions actively are linked to quantifiable success – and third: trends. Within the different analysis sections graphs serve as visualization.

5.2.1. Market Understanding

The quantitative questionnaires clearly showed that there are significant gaps in the application of existing business knowledge in practices in Germany. In order to give a first insight, all answers are shown in Appendix T. The following paragraphs will not run the reader through every single answer, but will much rather point to some interesting facts coming out of the data.

Even though 67% of all participants were male, only 50% of the research subjects bellow the age of 40 were male. Many results are being split by age, also because 59% of all participants were 50 years and beyond. 26% of the survey participants had specialist practitioner titles called "Facharzt". These titles imply that these practitioners do not offer normal dentist services but rather specialized services such as periodontology or orthodontic care. As for the legal form of business an interesting fact came out. Most practices are organized as sole proprietorship or civil partnership. Less than half a % of the participating practices were organized in form of a GmbH – all of these GmbHs were belonging to participants bellow 40 years of age. 62% of all practices in the survey have a team size of between 4 and 10 operational members (including the owner-manager). 30% of all participants have a team of 11 or more staff members. 57% of the practices that disclosed

[315] OECD, n.d.

their revenue have a revenue of between 300 and 900k. 15,8% of the participating practices have a revenue exceeding 1,2 million Euros.

In accordance with the statistical analysis about Germany in section 4.1 the majority of employed practitioners is female. In this study the sample of employed practitioners was 71% female. Logically revenue changes depending on the practice to either be a sole proprietorship, a civil partnership or a limited. Since very few practices in this sample were organized in form of a limited, this type is not looked at any further. The higher the revenue, the lower the expectancy that the practice is an individual practitioner practice. The higher the revenue the rather it is a group practice, HCC or joint practice. Interestingly women are rather settling down in form of single practitioner practices than men. Men as well prefer single practitioner practices, however, whereas it is 27% of women that work in a joint practice, it is 32% of the men. This fact contradicts that more of the employed doctors are female and the assumption of this being the case since parenting was easier in employment. However, it could also be the case, that women prefer acting as single owners since then no responsibility to other owners arises in case of parenting. The fact, that practices of women tend to be smaller than practices of men supports this fact – but still, this is an assumption. On average it can be said, that the more revenue there is, the more employees are in the company. However, interestingly, 10.5% of all practices with over 1.2Mio Euros of revenue have only 7-10 employees – meaning, that a high revenue does not necessarily require a high number of employees if structures are set the right way and employees take the right actions.

Figure 22 shows the gender distribution for administration time. Since only one participant classified him-/herself as diverse, that is not shown in the visualization. The illustration indicates that women tend to spend more time with administration than men. Interesting enough, however, men tend to generate higher revenues than women. This might mean, that administration – all importance appreciated – is not as important, or, that women are the better delegators. In fact, 15,2% of the entire sample delegate responsibilities, only 13.1% of women do. It might be interesting to know what these practitioners actually do in their administration time and how, each and every single one of the practitioners define administration time, since an adapted definition of it might influence the answer. It turns out that in our sample young practitioners are equal in gender, whereas practitioners beyond 40 are male rather than female. Thus, the first sight information that women spend more time on administrative duties is misleading, since in fact it is a question of age. 58% of all

practitioners younger than forty spend 30 to 50% of their time with administrative duties as shown in Figure 23.

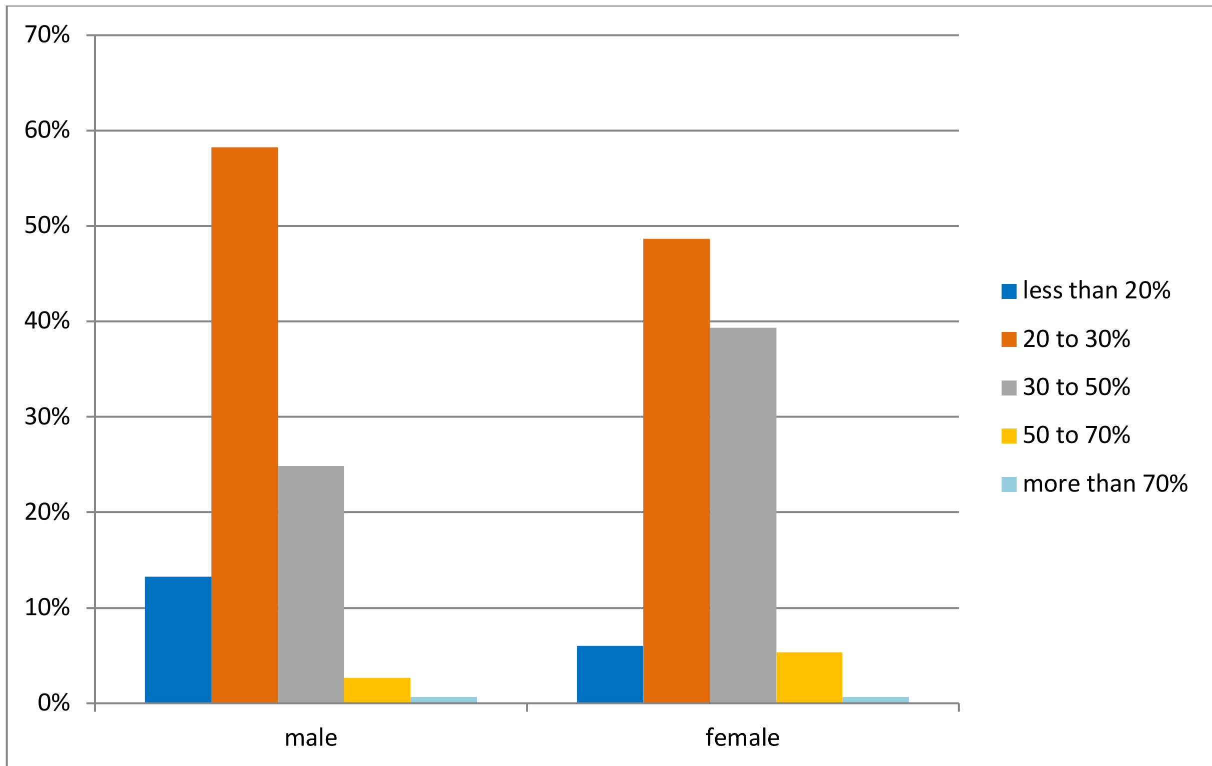

Figure 22: Gender and Administration Time

(own development out of primary research)

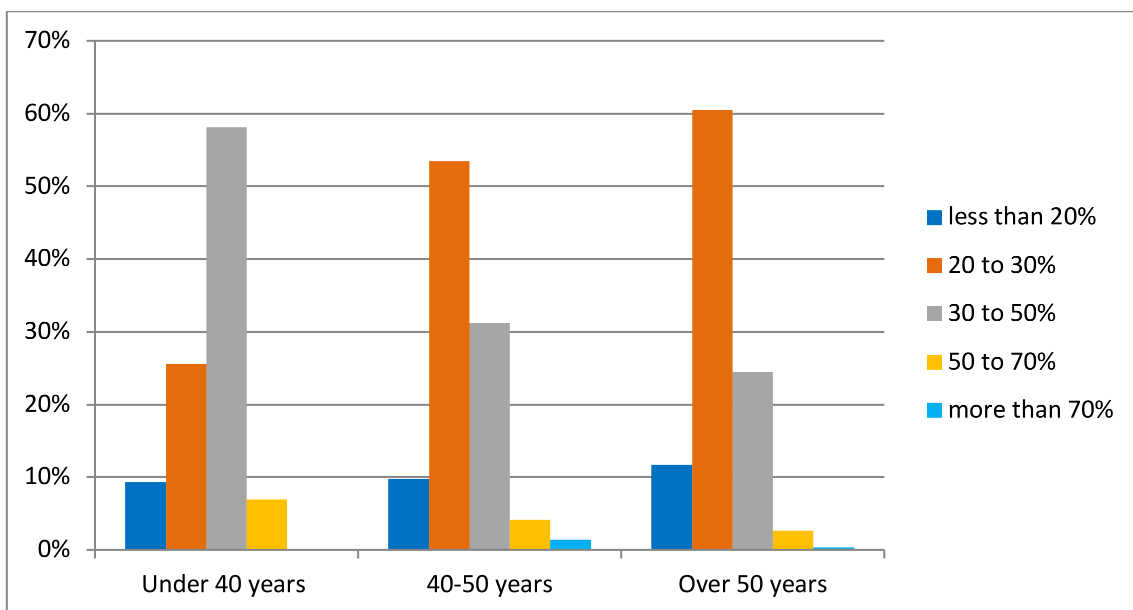

Figure 23: Administrative Duties and Age

(own development out of primary research)

Knowing that practices of practitioners beyond 40 tend to be more profitable than practices by practitioners below that very same age suggests that doctors are learning to organize their administration on the job and with age. If the preparation – let it be by University education, additional study programs or consulting – of practitioners to meet their duties would eventually evolve, profits of younger practitioners could be significantly higher. The higher the revenue the more outsourcing is in place (see Appendix U).

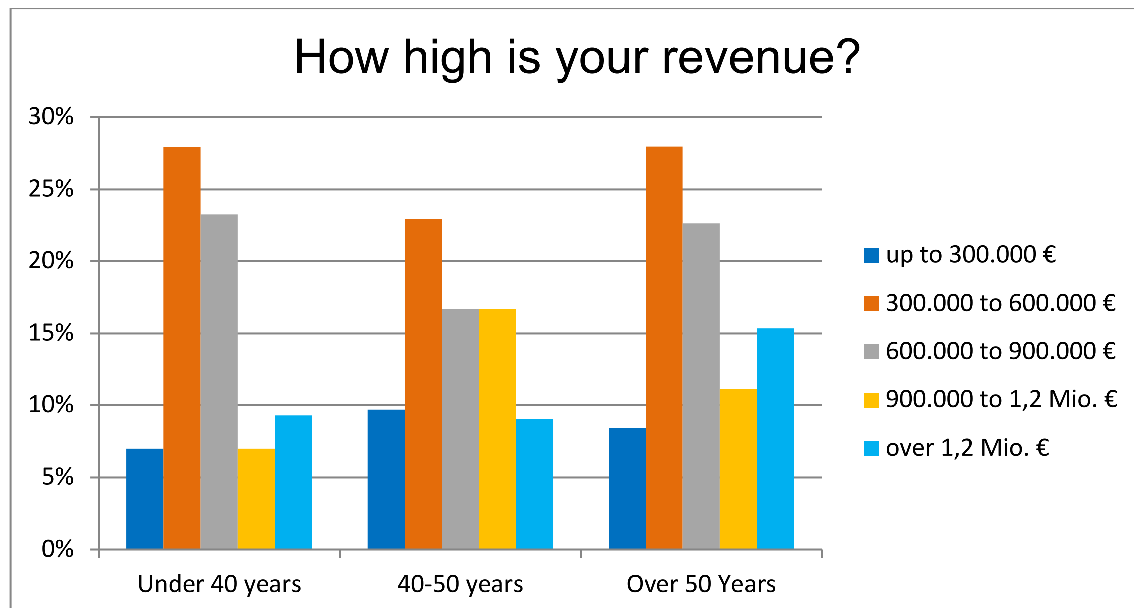

Figure 24: Revenue and Age

(own development out of primary research)

Figure 24 and Figure 25 are visualizations of revenues depending on age groups, gender and number of employees. For the purpose of this graph people who did not give answers were excluded, since this would falsify the percentages. One participant classified him-/herself as diverse, this answer was also not considered here for reasons of statistical relevance. The graph includes 363 responses, thus can be considered as statistically valid (see chapter 4). Interestingly the revenue of practitioners lower than 40 years old seems on average lower than the revenue of older practitioners. Practitioners over 50 years of age remarkably have less practices with 900k to 1.2 Mio. Euros. It seems that beyond that age the practices turn either larger or smaller with more practices beyond 1.2Mio Euros and more practices with 600 to 900k Euros. One reason could be that practitioners between 40 and 50 work very hard and that some beyond 50 manage to employ doctors, whereas others beyond that age just work less since having earned their lorries already. To prove that, however, a longitudinal study with the same participants would be necessary. Also interesting is, that 12.5 % of all

practitioners bellow 40 years of age have more than 1.2 Mio. Euros of revenue, whereas only 12 % exceed that amount between 40 and 50 years of age. This could be reasoned in confidence interval, but also be linked to the pure fact that new generations of practitioners use new structures and consider employing other practitioners at an earlier age. Interestingly the data also revealed, that practitioners at a revenue of 600 to 900 k Euros spend more time with administration than any other practitioners (see Appendix V). Looking in more detail at Figure 25 reveals how rich in data the figure is. Every single one of the clusters is built in form of percentages, so that all bubble sizes together add to 100%. This was implemented to avoid any misunderstanding due to different numbers of participants in the single groups. Interestingly, the figure clearly shows, that women beyond 40 tend to employ less members

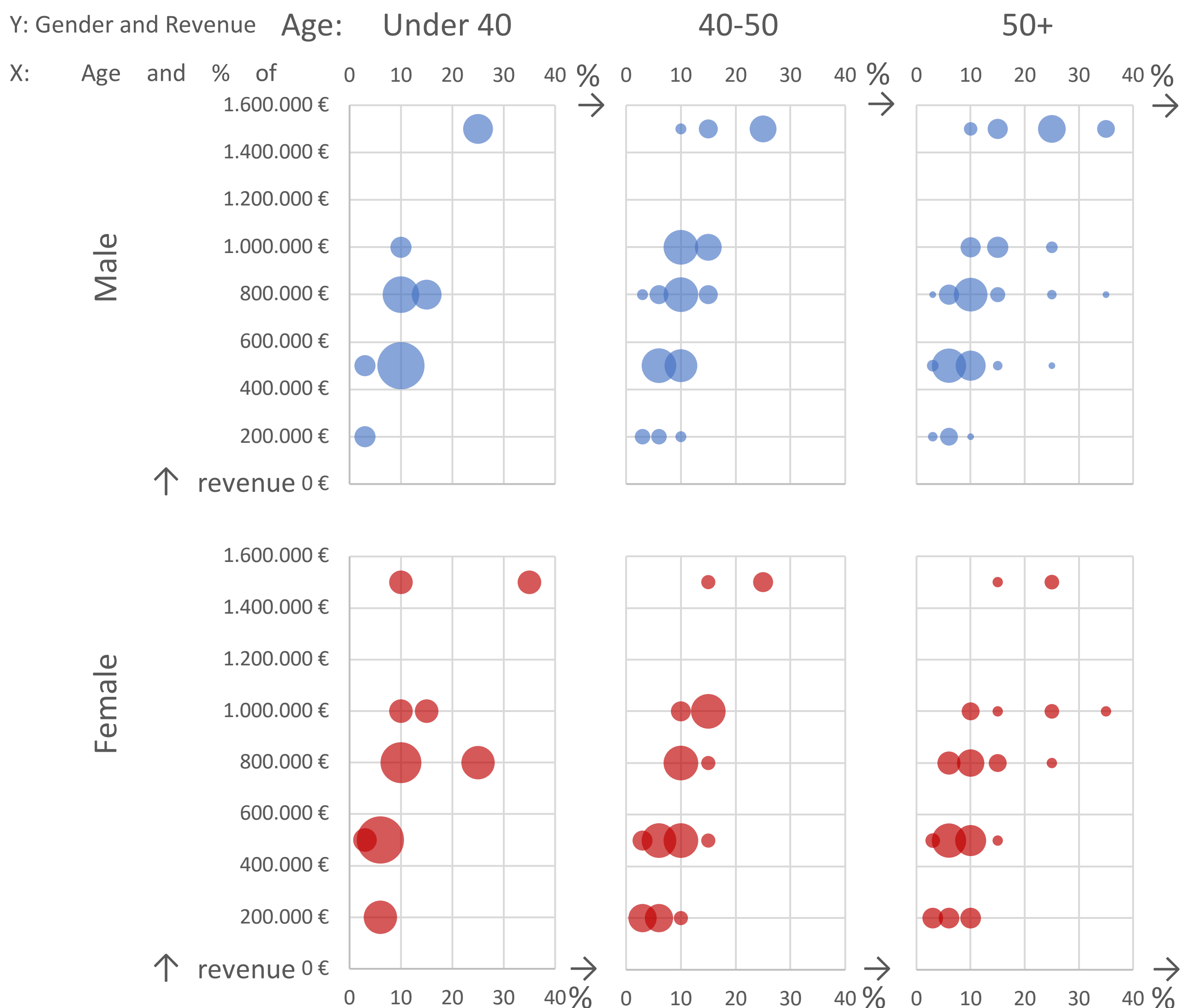

Figure 25: Revenues Depending on Age, Gender and Number of Staff Members

(own development out of primary research)

of staff than men. Further one can see, that the generation of higher revenues is more linked to men than to women. If that is linked to the fact that women prefer to keep the size smaller to get children more easily or what else the reason may be, one can clearly see, that without any discrimination – since the opportunities are the same for men and women – that women are generating less profit and thus less income for themselves than men. Especially more experienced male professionals create high revenue companies with many members of staff, a major exception for female professionals. Looking further at revenues, there is a straight correlation between the actual revenue and respective planning. Figure 26 seems to be the proof, that successful and revenue generating practice management is a result of the of revenue planning.

CI is more important to companies that generate higher revenues (Appendix W). Interestingly, more than 7% of all practices that generate a revenue of more than 1.2 Mio Euros do not implement CI at all. This could lead back to quality care. The patient looks for quality care and some might even be distracted by too much effort in CI, since care is more important to them.

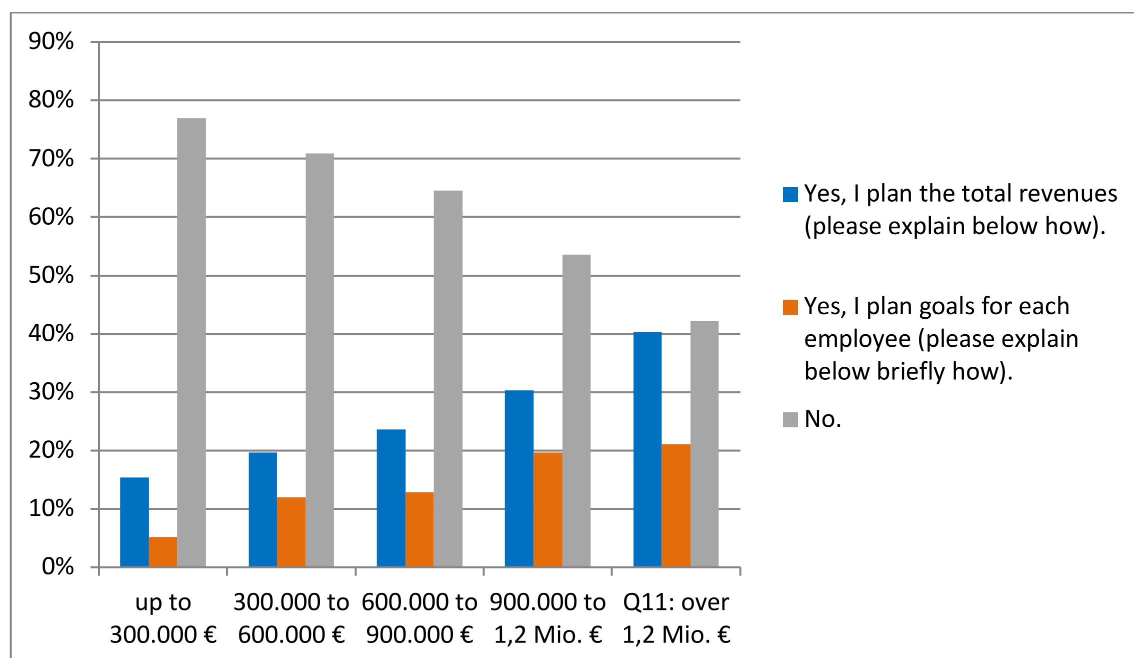

Figure 26: Revenue Planning and Actual Revenue

(own development out of primary research)

The fact that younger practitioners tend to delegate duties such as marketing less than more experienced practitioners, again implies that staff leadership is something that practitioners learn with experience. If coaching culture and delegation were a trained skill

among practitioners, they eventually would be able to delegate at an earlier stage and thus achieve more quantifiable success at an earlier stage of their career (Appendix X and Figure 23). Digital recommendations tend to be used more by younger practitioners (Appendix Y). The use of Facebook, Jameda and other digital recommendation platforms such as google and Instagram seem to be closely related to revenue generation. The publication of patient opinions on the own website seems not to be linked to quantifiable success very closely (Appendix Z), though the highest revenue practices do publish patient opinions more frequently on their websites than the lowest revenue ones. Between 300k and 1.2Mio Euros that value stagnates.

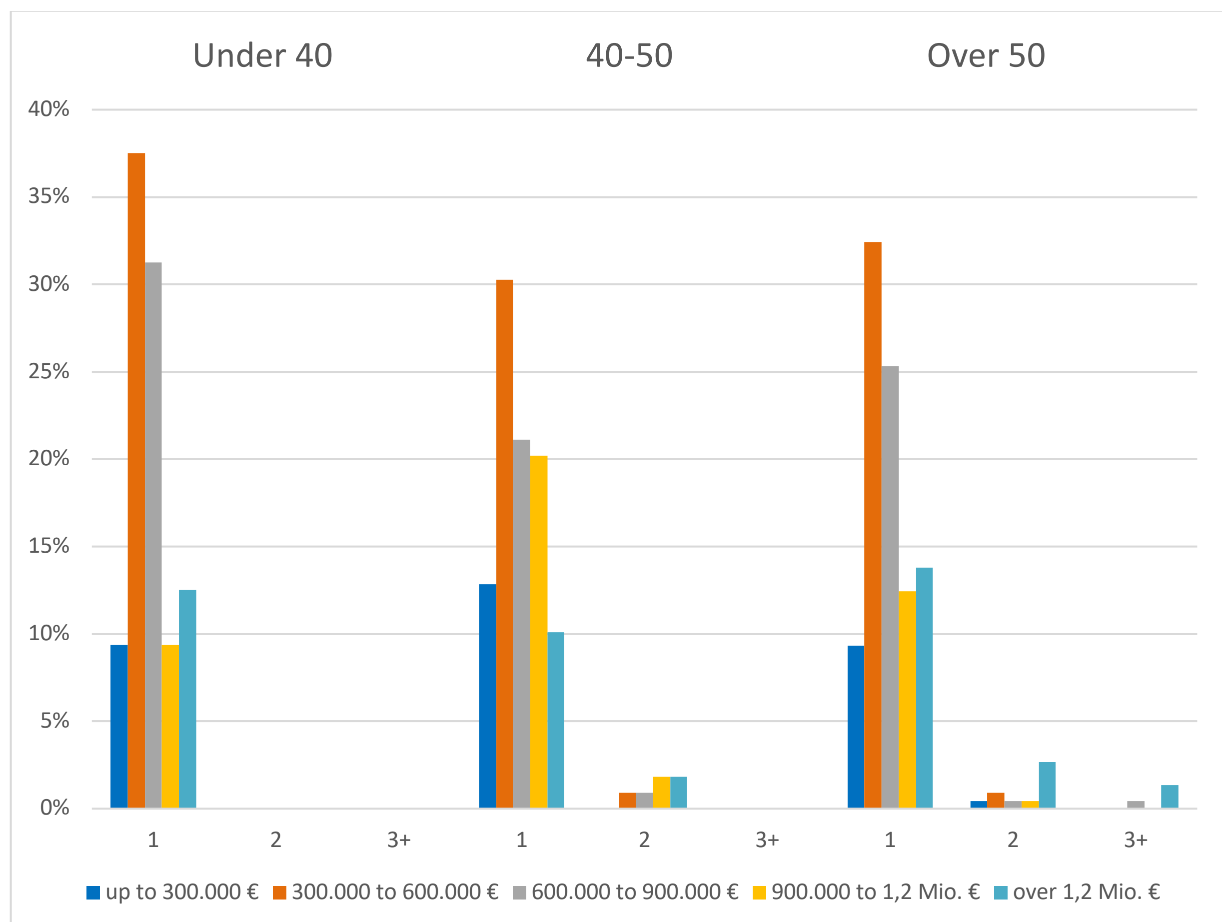

Figure 27: Revenue and Branches

(own development out of primary research)

Younger practitioners tend to use more online tools to hunt for employees than more experienced ones. Even though outsourcing is more typical for younger generations, it seems that staff hunting agencies are more common to older practitioners, which use less online tools, to find staff members. (Appendix AA). The higher the revenue, the more job hunting is pursued via print media and Facebook. Recommendations are a common tool to find

practitioners (58%). Younger practitioners are aware that medical competencies are important, however, that economic and human competencies are also important. Whereas 97% of all practitioners beyond forty train medical competencies on a regular base, only 88% of all practitioners below 40 do so. Human and economic competencies are trained by all practitioners; however, younger practitioners place more importance to these topics than the more experienced ones (Appendix BB). In contrast to the efforts in training, the younger the practitioner, the more importance is being placed on delivering high quality care Appendix CC. Beyond the age of 40 Practices with higher revenue generally put more effort in staff training than practices with lower revenues. The higher revenues are, the more importance is placed on training in non-medical competencies (Appendix DD).

Overall 76% of all practices optimize their material purchasing by looking at their purchase prices. Younger practitioners seem to be busier with running the practice and seem to place less importance on optimizing the numbers. Purchasing improvement is a topic that is significantly more important to practitioners beyond 40 than to younger ones (Appendix EE). Practices with a revenue beyond 1.2 Mio Euros seem to be less likely to switch material due to pricing and in general seem to focus more on optimized processes, whereas practices that are just below this revenue have a willingness to switch material and seem to look least on the pricing of material (Appendix FF).

It seems that the number of branches is not necessarily linked to revenue. Looking at Figure 27 shows, that a higher share of practitioners beyond 50 with two branches make an overall revenue of 300 to 600k than 600 to 900k. It seems, that alongside the consideration of a multibranch strategy, the optimization of processes in a single branch can have a relevant impact on the revenue of the overall business. It also seems, that running a multi-branch strategy depends significantly on the location and the degree of set business structures in the company.

The survey clearly shows, that some practitioners implement different strategies than others and that depending on the actions taken, these lead to different results. Whereas this section primarily served as an understanding of the overall outcomes of the survey, a logical grouping was also derived out of the results and combined with the expected success drivers out of existing publications. In the next chapter the resulting analysis is presented with a focus on the drivers of success and the trends for the upcoming years.

5.2.2. Success Drivers

After a presentation of the results – as much of the interviews as of the questionnaire – in the previous section, this part looks much more into analysing the data for what actually drives success in the field of OHC practice management and evolves on the trends for the two investigated countries. The chapter closes with a second round of interviews with five practitioners to discuss paradoxes which came up in the survey.

The review of existing publications has shown, that very limited academic theory has been applied to the case of practices of general practitioners, let alone dentists. A massive range of advisory guide books, book chapters and non-academic journal articles exist, some of which – due to the lack of academic publications – were published by typically rather academically oriented publishing companies. Other than that, fully academic literature exists for hospitals which have well-developed business administration. Many academic publications apply business theories and knowledge to hospitals, thus stationary care. *This study made a successful first attempt to academically look at the gap between business theory and practice application in ambulant care, especially in OHC practices.* Due to limitations in time and funding this section only looks at Germany.

Since especially in Germany the market of outpatient care for many decades was exclusive to contracted practitioners, bigger practices practically never existed – thus no need for guidance nor any possibility to conduct valid research in a field that practically does not exist on the market. Since the opening of practices was regulated and new openings had to adhere to demand planning, every practice that opened had some demand by its pure location. This has changed since freedom of establishment allows every practitioner to open his practice at his location of desire, rather than in areas with significant demand, and since the management challenges today are much more complex than they used to be in the past. This study does not only academically highlight the knowledge gaps practitioners face in smaller practices, but also adds to the existing literature about HCCs. For the pure fact of funding and more business thinking current literature about HCCs is based mostly on research conducted from the perspective of hospital investors, much rather than from the perspective of practitioners that decide to run their practice as an HCC including all advantages but also risks and obstacles that were previously discussed.

Within this section first four specific groups of practitioners are presented including the results they create by taking specific actions. Later on, the single actions, some

practitioners take, are linked to quantifiable success. This quantifiable success is here only measured in the amount of revenue created, which, however, still allows a good understanding of which actions lead to monetary results.

Specific Groups of Practitioners

For the purpose of this further explanation the subjects were grouped as visualized in Table 6. None of these groups are exclusive, meaning that some members are in several groups (see Appendix GG). Purpose is, to understand where the strengths, weaknesses and knowledge gaps of these groups are and what actions they take to get to results. By doing so, consulting and secondary education could be simplified and thus be made accessible to more practices.

Table 6: Subject Grouping Questionnaire

Cash Cows (CC)	Experienced Practitioner (EP)	Business Driven (BD)	Marketing Guru (MG)
- Up to 10 employees - 900k+	- Worked in 5+ practices	- Comparison of prices - Revenue planning - 11+ staff members - Management / Staff leadership (very) important - Organisation / Controlling (very) important	- Complete CI - Online opinion platforms - Marketing / Patient orientation (very) important
32 respondents	36 respondents	52 respondents	87 respondents

First the *"Cash Cows" (CC)*. This group makes a significantly *higher revenue* with a very *limited number of staff members*. Ironically within this group of practitioners PhDs are less likely than in the entire sample. Practices of CCs are rather newly founded than takeovers. One reason for the high economic drive could be that these new practices tend to be well-organized from the beginning and that new rules are implemented from start rather than needing time to clean older "hidden" problems. Most of the owners of these practices are more than 50 years old. Taking into consideration, that the majority of respondents in this study was beyond 50 though, puts that back into a correlation. Significantly more CC practices, than average are run by 40 to 50-year olds, about the same share of practices – CC or not – is managed by practitioners below forty. It seems that CC practices are led rather by teams than the average. Whereas half of these practices are GbRs (multiple owner structures) only 30%

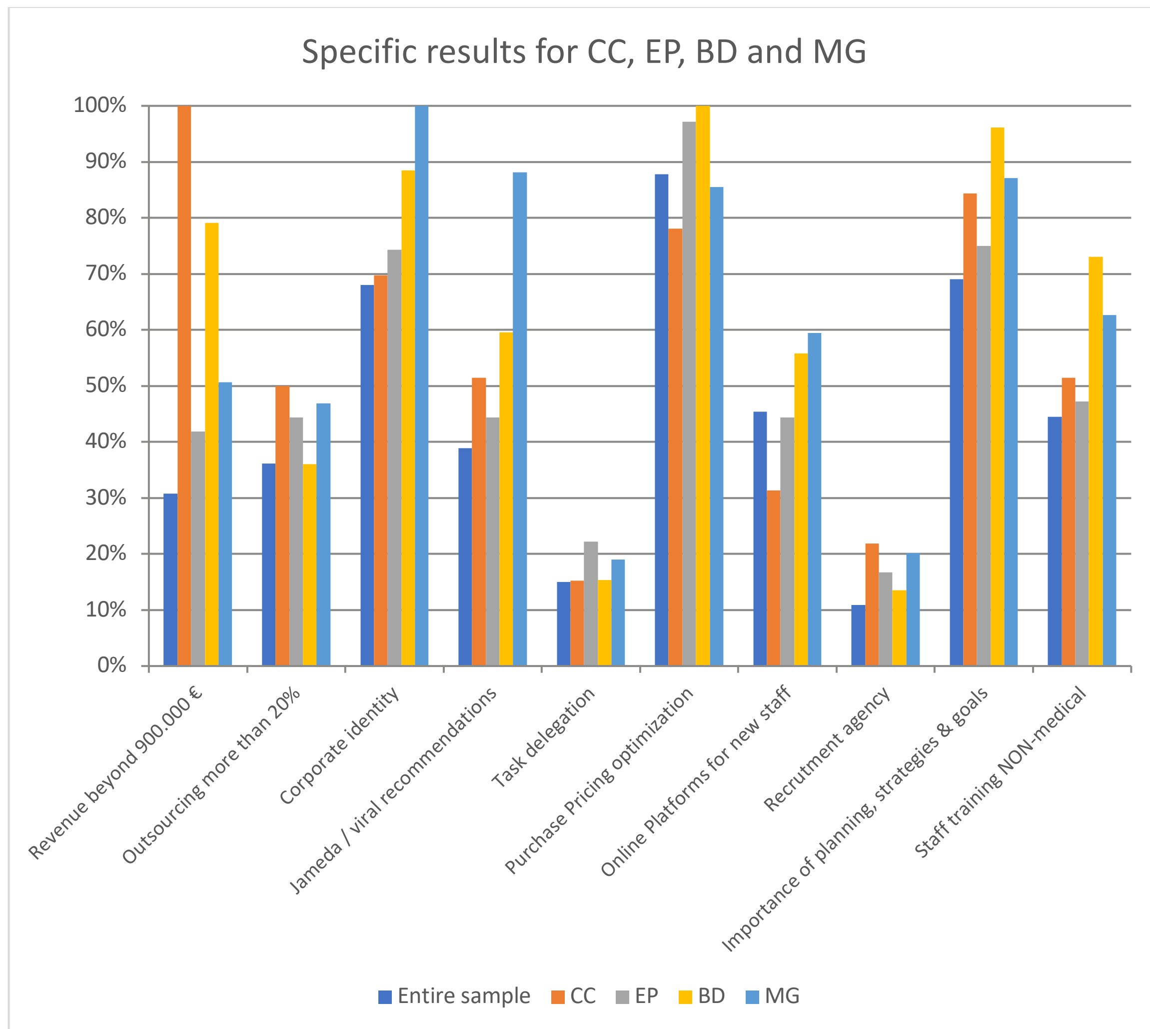

Figure 28: Specific Results for Predefined Groups

(own development out of primary research)

of the entire sample are run by several owning practitioners. Outsourcing and measuring performance for this group of practitioners is much more common than average. 48% of these practitioners implement full CI, 12% don't care about it, whereas on average only 8% don't care and 31% have full CI. It seems that one particularity of this group is that leadership is clearer: either tasks are well-completed or not implemented at all. Further working with staffing agencies is more common for these practitioners too. 23% of these OH professionals work with staffing agencies, whereas on average it is only 10%. Using Jameda is also more common among this group. 53% of these practitioners use Jameda, whereas only 38% of all respondents use this platform. Delegating responsibilities for this group, to either a leading staff member (practice manager) or single members of staff, is also more common than average, however still only at 12%. Interesting enough purchase pricing is a topic that less of these practitioners seem to optimize on in comparison to all respondents. 22% of these

practices do not optimize the purchase prices of their material, whereas on average only 12% of the entire sample do not look at optimization. Planning strategies and goals are perceived as (very) important by 84% of these practices whereas on average the importance is only at 69%. When looking at Figure 29 about the importance these practitioners give to the different aspects, then these practitioners value a range of points the same way, and do not place focus on one specific aspect other than quality care, which is important to all groups of practitioners.

Figure 29: Importance of Success Factors for Analysed Groups

(own development out of primary research)

Second the *"Experienced Practitioners" (EP)*. Practitioners, that run the clinics here, have more experience in other clinics than the average practitioner, since having worked in five or more clinics. It turns out that oral surgeons collect more experience on average in other clinics than all practitioners in the sample. Practitioners with more experience are also more likely to found new practices rather than taking over an existing one. This seems to be the case since they already know from others what works and do not have to believe that taking over an existing one is safer. Whereas only 30.8% of all practitioners generate a revenue of

more than 900k, 41,9% of the experienced practitioners exceed that revenue. Thus, experienced practitioners have a higher potential to generate more cash than most practitioners in the sample. Further, they also tend to involve staff in marketing decisions. Overall the results show, that these practitioners are twice as likely to delegate responsibilities as the average practitioner. They further use more head-hunters than typical in the sample and are more likely to compare prices. Whereas almost 12% of all practitioners do not compare prices, less than 3% of the experienced ones do not look at purchasing optimization. Continuous education for employees is valued significantly higher by EPs than on average. Whereas almost 56% of EPs valued employee training as very important, this value on average drops to less than 35% for the entire sample, further EPs are stronger on outsourcing. EPs in Figure 29 place high importance on staff training. Other than that, they seem to be more relaxed and place less importance to all factors than any other group.

Third group are the so called “Business driven” (BD). Their ambition is a big practice with planned revenue and well-trained staff. They are rather organized as GbR (group practice) than as single practice. 53.5% have more than 1.2 Mio. Euros of revenue, all efforts appreciated 7% of these practitioners, however, still achieve only a revenue of 300 to 600k. Over 92% of these clinics measure themselves at their planned revenue. Jameda is also used by almost 60% of these practices (average 40%) and Facebook is also used by about twice as big of a share of these practices than average (40 rather than 20%). Staff training in non-medical aspects is more important to this group than to the average. Whereas on average only about 41% of staff get non-medical training, more than 71% in this group are trained in non-medical areas on a regular basis. Planning and organization is rated very high by 67% of the respondents of this study, on average only 24% rate this as very high. Looking at Figure 29 implies that these practitioners try to strive at all areas and value all fields other than cooperation models as very high – apart from MGs who value marketing more, they place highest importance on all fields, in comparison.

Figure 30: Success Actions Assumed

(own development out of primary research)

Here classified as *"Marketing Guru"*'s (MG) are practices that place high effort on their CI and see marketing as a business driver. What is interesting, is, that these practices are more aware about the growing competition than average practitioners. Still these practices have significantly more revenue with just a slightly higher number of employees. More than 60% of these practices do plan revenues, in the sample average more than 60% do not. The red line follows through, about 60% of these practitioners use online platforms to find new staff members, a point that is also much less common for the entire sample. MGs further, weight staff training much higher than average practitioners. Organization, as well as management and leadership, seem to be more important to MGs. Analysis of these four groups shows that there is high potential for specific actions to link to measurable business outcome. The actions that were found to have an impact on results are shown in Figure 30.

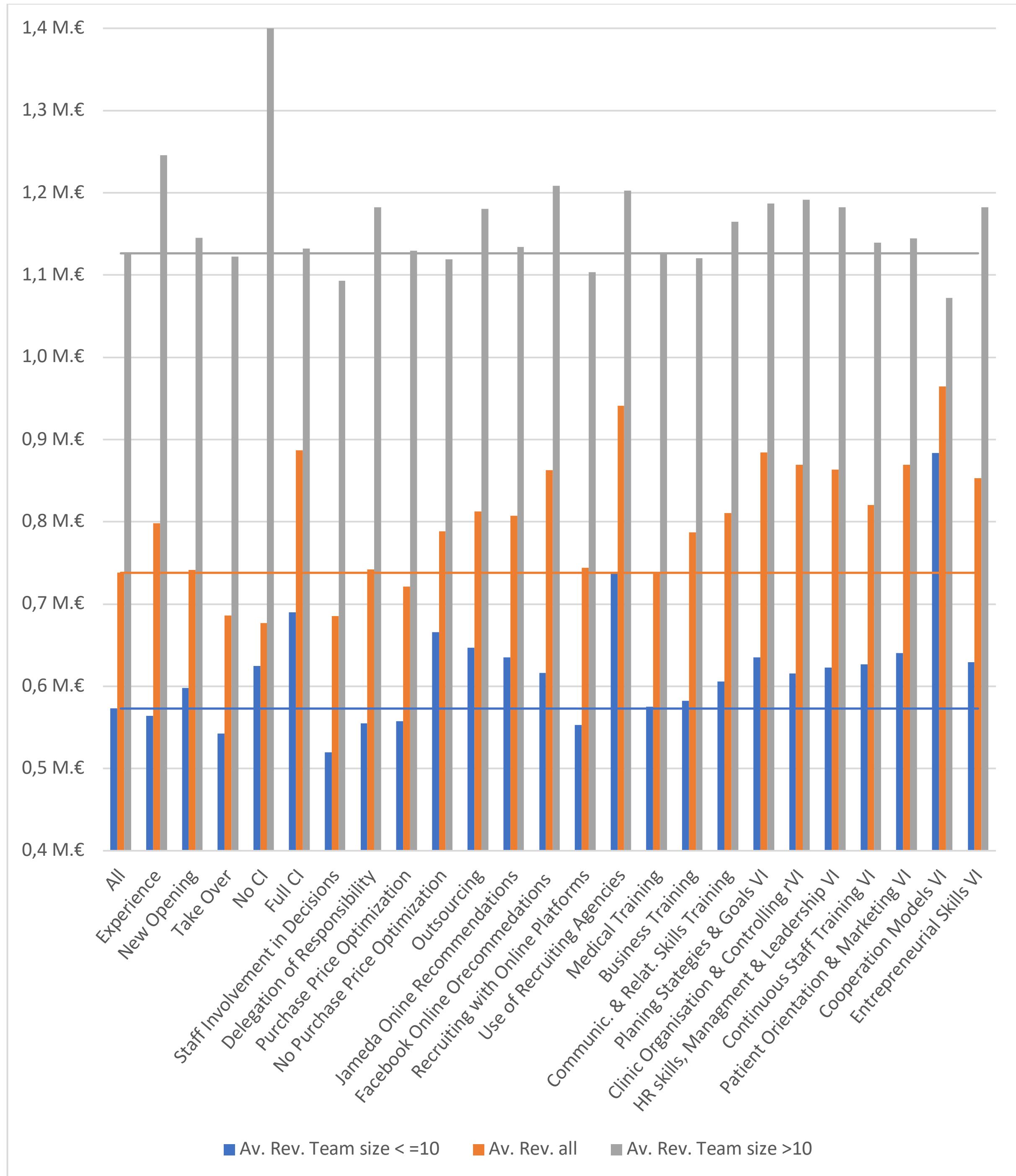

Figure 31: Measurable Impact of Actions and Attitudes

(own development out of primary research)

As a subsequent step every single one of the aspects shown in Figure 30 is investigated individually by looking only the aspect and how revenue of the entire sample changes. Significant impact was defined here as measurable average revenue to vary by 5% created by the practice. The average – since the respondents only answered within ranges – was calculated by taking the number of respondents in the range and multiplying this by the average of the range. Figure 31 shows how these single actions and / or attitudes are

connected as much positively as negatively to revenue. As mentioned, the analysis contains all variables visualized in Figure 30 and the attitudes to all success factors derived from the literature (see Figure 3). It was here assumed, that all answers about revenue, that practitioners gave were correct. Nevertheless, even if answers might eventually be too high, then still percentage impacts of specific actions with regards to revenue might be correct, if assuming that answers were similarly correct and / or incorrect in every group. Given these results are based on the conducted surveys, phenomenology could not be used, which eventually would have allowed to filter respective results taking body reactions or movements implicating honesty or dishonesty into account.

Experience

Experience is often seen as a major advantage by professionals. It turns out, that if looking at experience only, that it has a significant positive impact on the average practice. Revenue of practices is on average 8.2% higher if the practice is run by an experienced practitioner. Looking at the numbers in more detail, reveals, that only practices with more than 10 employees have a measurable outcome from the experience of the practitioner. In fact, smaller practices in the sample suffer from a 1.5% lower revenue if the practitioner has experience. Given that this percentage is so low and the confidence interval of about 5% in this study, this result may only be seen as a potential indication for further research, rather than a well-grounded fact. Still, it may be said, that significant relevant experience seems not to add to business results at a smaller practice size.

New Opening versus Take-Over

Ironically one would believe that practices that were initially taken over would be creating more revenue since relying on an existing structure. This research, however, proves, that practices that are newly founded over time tend to generate more revenue than practices that are taken-over. This could be for two reasons: First a character question and second a calculation point. Character question, since it typically are different characters, that either decide to take over, or to found from scratch. Further practices that are taken over, calculate with the past numbers and do not plan to exceed. The period of thirst in a new foundation, however, is longer and perceived as much riskier by the founder and thus there could be a stronger drive to excel.

Corporate Identity

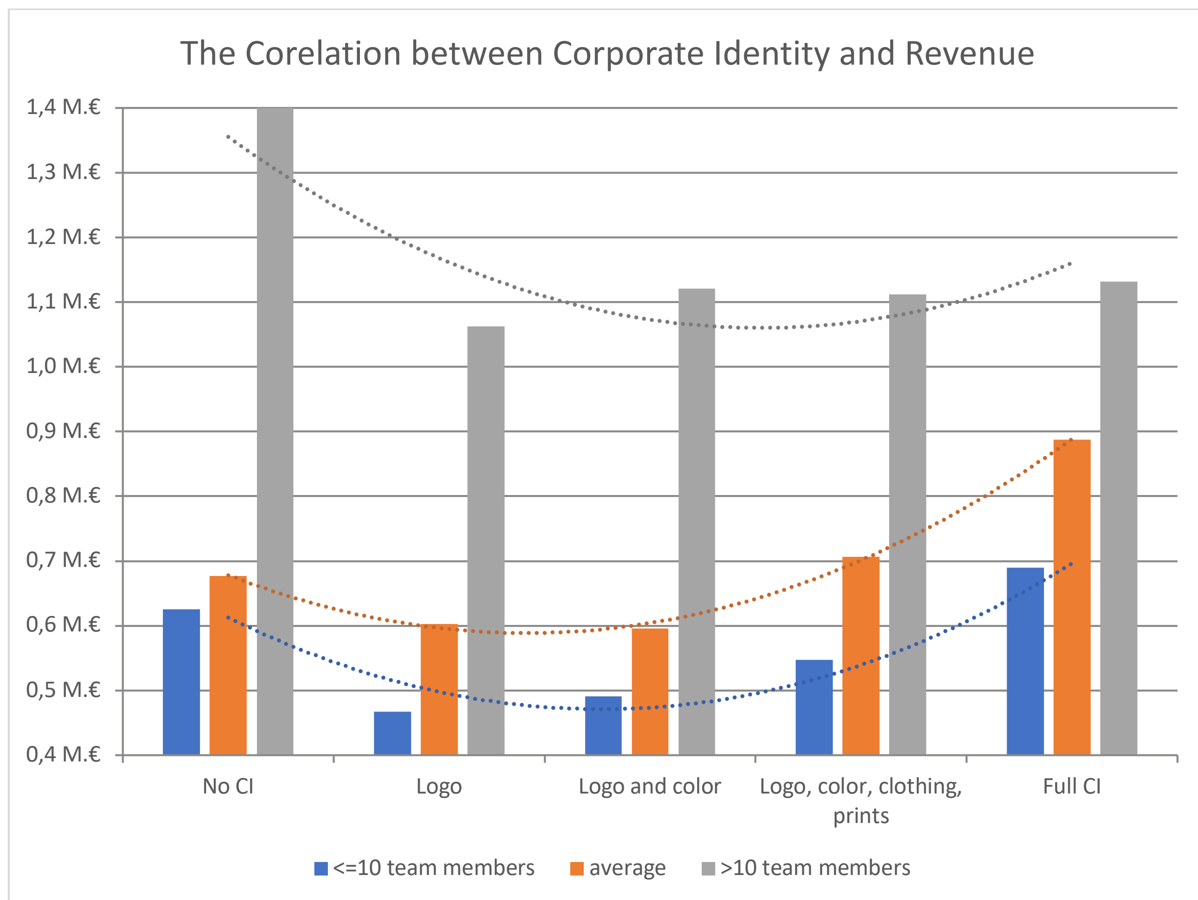

Figure 32: Corporate Identity Implementation and Revenue

(own development out of primary research)

The study shows that the existence of CI does have an Impact on practices. Here in the success analysis it was found, that it has a strong impact on practices to either, not place any value in CI or to implement full CI. The results here – due to the size of the groups – might eventually lack a bit (no CI: two sample members for large practices), but still it seems interesting, that for large practices the implementation of CI seems not to have a major impact. If the lack of CI implementation out of the study can really be measured for larger practices is not sure, due to the sample size in that group. However, it seems, that the measurable impact of no CI implementation, in bigger practices, is higher than the one of full CI implementation. Smaller practices that do implement CI succeed more in creating revenue than those who do not implement any CI, both, however, excel in this capacity. To see more details, look at Figure 32.

Staff Involvement in Decisions and Delegation of Responsibility

Staff involvement in decisions is here only measured in being involved in marketing questions, in terms of the involvement of the practice team in deciding about what marketing actions to take. Practice owners that involve staff in marketing decisions have significantly lower revenues. It seems that marketing needs to be a strategy rather than a step by step process that is to be influenced by a group of people. Interestingly delegation of responsibility on average does not have a clear impact on the revenue on average. Looking, however, at smaller practices in which responsibilities are delegated, revenues are significantly lower, than average. Interestingly bigger practices that delegate responsibility, excel and create higher numbers. Reason could here be the quality of delegation. Since practice owners are not trained managers, their goal is that the process somehow works, but is not improved on efficiency constantly. Further one may raise the question about how the delegation of responsibility is implemented – given the major difference between monetary results of delegation at smaller versus bigger venues.

Purchase Price Optimization

Interestingly the study here shows a very unexpected result. It seems that the optimization of the purchasing department, is not what belongs to the success factors in a practice at all. Practices with less than 10 employees and on average all practices which do look at their purchase prices perform worse than average when considering revenue. Only practices with more than 10 employees perform average and in fact a tiny little bit better than without pricing optimization. Practices that do not look at their purchase prices are performing significantly better on average and particularly better if bellow 10 employees. In fact, revenue is 16% higher for these practices than average.

Outsourcing

The survey question about outsourcing was asking about the extent of outsourcing in detailed percentages. It turned out that looking at it in a simplified way is more useful in the analysis. All practices that use 20% or more outsourcing are being looked at here. No matter the team size, revenue – if outsourcing is implemented – is going up. It seems what is expected to happen – given that outsourcing is meant to replace some duties usually performed by internal staff members. If only looking at revenue, then outsourcing is the way to go, however,

it must be considered here, how expensive outsourcing the service is in return for the additional revenue created and if profit can really be achieved. Looking at the results of the study, outsourcing seems to primarily impact the revenue of smaller practices with an increase of over 12%; Average increase is still significant with over 10%; for larger practices this number seems to be going down to less than 5%. However, this research result might be lacking, since more than 47% of all respondents with more than 10 employees answered that their revenue would exceed 1.2 million Euros – meaning, some revenues will be significantly higher and if answered differently in questionnaire – would impact the answers in a stronger way. Given the fact that answers should be distributed normally it is expectable that percentage impact of outsourcing is similarly high at larger practice size.

Online Recommendations

The use of online recommendation platforms seems to be the way to go. For this research, only Jameda – the currently strongest platform for medical recommendations – and Facebook were looked at in this analysis, but still the trend is clear. This is not meant to be a social media study but rather looks at a range of quantifiable success influencing factors. If such online recommendation is used, then revenue is growing. On average, practices that use these platforms, perform way better than others. Interestingly Jameda seems to be having a stronger impact on smaller practices, than on bigger ones, whereas Facebook has a stronger impact on bigger venues than smaller ones. This could be the case due to Jameda linking the recommendation to the practitioner, whereas Facebook – if well used – recommends the practice rather than a single person. Thus, if a practice is bigger and performs medical treatments with several practitioners, then Facebook seems more to be the tool to use – given its linked to the entire practice – than Jameda. All in all, however, no matter the tool, all practices seem to enjoy an advantage by using such tools. To give just one number, according to the analysis, the revenue of practices using Facebook – on average – is almost 17% higher. With the use of online recommendations, one major risk arises as well. Recommendations and evaluations can be as much positive as negative. Negative evaluations can harm the reputation of practices. In fact, there currently are several lawsuits with Jameda about the impact of positive and / or negative recommendations [316].

[316] e.g. Aerzteblatt.de, 2019

Recruiting: Online and with Agencies

Online recruiting seems to impact revenue just about average. In fact, with online recruiting revenue is just a little bit lower. Given that these results are not statistically relevant, it can be said, that the use of online recruiting tools does not have a significant impact on revenue.

The collaboration with recruitment agencies, however, does play a very important role. All practices that decide to work with recruiting agencies – no matter their size – enjoy a very significant positive outcome out of their decision-taking. Practices with up to ten team members do enjoy the luxury of – on average – almost 30% increase of revenue, if working with recruitment agencies. Even large practices do have an increased revenue of almost 7%. If again – like with outsourcing above – considering, that revenue also with larger practices should be normally distributed, then, also for larger practices, the number of 7% should significantly increase, and thus, agencies, also at very large practices should play a more important role in terms of their connection with revenue.

Staff Training

Given that the majority of practices (about 96%) offer regular medical training to their staff members, no correlation can be made for medical training to have any specific impact on practices. Other than medical, some practitioners also offer business training or train communication and relational skills. Business training in practices seems to be of mediocre importance. On average practices that implement such training have a revenue that is almost 7% higher than the mathematical expectancy revenue based on all practices.

Training of communication and relational skills in turn seems to have a true connection with revenue. The strong connection here could be linked to the fact that training of communication skills enhances, as much the communicational process between team members in the practice, as also the sales process of additional services to the patient. And in fact, such training is not only good for additional services but also comforts the patient and increases chances for WOM recommendations.

Attitudes to Success Factors out of Publications

The previous analysis discovered that some points, that felt important to the subjects, were closely linked to revenue creation. To avoid any misinterpretation the relationship

between revenue and the importance of each of the points – apart from the quality of treatment, which was considered very important by so many, that no real difference was revealed was researched. The facts reveal, that if any of the factors were very important to the practitioner, that on average revenue was higher. It seems that valuing any of the mentioned aspects has a correlation with revenue. The VI shows some personal preferences and placing such importance on any of the factors shows, that the business matters to the practitioner, which results in higher revenue outcome of the company. Planning, strategies and goals as much as entrepreneurial skills seem to have the biggest impact on all practices. Interestingly, cooperation models seem to have an outstanding correlation with revenue. If they are very important, the revenue is more than 50% higher for smaller practices. Again – looking at sample size, this subgroup only had 12 respondents, but still there might be a connection. Bigger practices, rather don't have an advantage if rating cooperation models as very important. Further research might be required to understand if practitioners, that rate cooperation models as very important, address official cooperation models recognized by HCIs or whether here unofficial cooperation's with other practitioners are being referred to.

Conclusion

The above discussed factors were, where appropriate, considered in the development of the market solution proposals to solve the growing need of business thinking in OHC in chapter 8. The five factors that correlate with revenue the most are visualized also in Figure 33 to facilitate understanding. No previous study has investigated the specialities of practices and their very specific success drivers. Thus, the figure can be understood as one of the core takeout's as much for practitioners as for consultants to adapt the practice strategy to the specific needs of the respective professional.

Figure 33: Success Factors linked to Higher Revenue

(own development out of primary research)

5.2.3. Trends

In both countries, neither in Germany, nor in Hungary any business training forms part of the medical education of practitioners today (exemption limited electives about HC start-ups in Berlin). It seems that business thinking and financial orientation is much more evolved in Hungary than in Germany. Whereas in Hungary practically, all but one practitioner (in this very small group of interviewees) checked their financial evolvement monthly and planned their revenues and profits, this turned out to be a significant exception in Germany with almost 63% of all practitioners not planning their goals at all. The interviews in Germany that

some – but few – practitioners checked the statistics in their software, but that generally even checking business results would happen only quarterly if not yearly with a delay of typically three to nine months. Even though goal planning was perceived as important or very important by more than 69% of all practitioners, only about 37% of all practices planned their revenues at all. This implies that there is some very rough estimation but not formalized planning in place and that the practitioners know that more thorough planning would be better, but that it still works. Primarily data for this analysis comes from survey subjects bellow forty years of age.

Trends in Germany

Non-positive Trends	Neutral trends	Positive Trends
• Less purchasing optimization • More administration time • Less delegation • Less revenue planning • Less medical training • Lack of practitioners to provide HC in the countryside (e.g. Blaschke, 2015, p. 17) • Monetary interests drive the market (Wolf, 2018)	• More outsourcing • introduction of so called HCCs (Geppert, 2014). (Geidel, 2009) • Freelance position of practitioners endangered (Blaschke, 2015, p. 17) • Young doctors tend towards employment rather than freelance (Halbe, 2015b, p. 58) • Social orientation of businesses (Zerth, 2018, p. 165)	• Group Practices • Bigger Teams • Less communication in the team • More business training • More communication training • Bonus payments • More CI • More recommendation platforms / WOM

Figure 34: Trends in Germany

(own development out of primary research and literature)

This section explains – at the comparison of practitioners' bellow fourty years of age and the average opinion of practitioners – where the ideas and the conceptual thinking of the younger generation is developing towards. For this part primarily, the survey data was used; some references to the publications shown in chapter four were made where appropriate. This was chosen as the way to go, since – even though most practitioners in Germany are beyond 50 years of age – this generation is shaping the future of OHC for the next 15 to 30

years, whereas the generation above 50 will leave the active workforce in the next five to 15 years. The trends that were found are shown in Figure 34, some are explained in the subsequent paragraphs.

According to the survey, younger practitioners tend to work in collaborations, such as group practices, rather than in individual practices in comparison to other age groups. Whereas 65% of all practitioners between 40 and 50 had individual practices, this value drops to 53% of all practitioners lower than 40 years of age. One reason here could be the increased bureaucracy practitioners face. Looking at the complexity of regulations that has increased over the last years, practitioners need to adhere to many more standards than before, which can also be seen in the quantity of practitioners that recognize the increase in bureaucracy since their practice foundation (95.2%). Younger practitioners tend to employ more people than more experienced practitioners do. Ironically, they create less revenue on average, even though they tend to have more employees, meaning that younger practitioners create less revenue per head. Purchase price comparison is being implemented relatively well by all groups of practitioners. Nevertheless, the younger ones are comparing prices and optimizing their purchasing significantly less than more experienced ones. The facts that younger practitioners spend significantly more time with administrative duties, have more staff and less revenue implies, that more entrepreneurial training is required in order to help these practitioners meet the challenge. Further, delegation of responsibilities is less likely with these practitioners indicating a significant gap of leadership skills, since more employees are employed, but less communication is happening or less tasks are delegated with responsibilities. And all this, even though business administration and communication skills are getting more common to be trained. Young practitioners train their staff much more in these areas than the average of the sample. Talking training, medical skills training is not as common as with experienced practitioners.

In addition to the above, younger practice owners further are outsourcing significantly more services than experienced professionals. Data protection officers seems to be a duty that is more outsourced by younger practitioners since there is awareness which consequences this may have, or since the fear of getting caught for miss-action decreases with age. They are more willing to pay bonuses to employees if they plan revenues (25% below 40 pay bonuses versus 22.2% above 40). However, planning revenues seems to become less of a trend for younger practitioners, even though publications see it as a success requirement for

decades [317]. The pure fact that planning revenues is less common for younger practice owners than for experienced ones, is just another proof of lack of knowledge in this group, since planning revenues according to the survey results and to business literature [318], seems to directly be linked to higher turnover.

Figure 35: Business Success Factors in Questionnaire by Age

(own development out of primary research)

A strong trend for younger practitioners is the more common use of marketing strategies, such as the implementation of CI (see Appendix HH), which is getting more common with 42% having full CI (rather than 31% in the entire sample), which is in accordance with existing publications that see marketing as important and reasonable [319]. Recommendation platforms such as Jameda, or the use of Facebook is more commonplace

[317] Lehmeier, 2004, p. 5 f.

[318] Hungenberg, 2014, pp. 50, 51; Hungenberg & Wulf, 2015, p. 379 ff.; Johnson et al., 2011, p. 414; Kursatzky, 2012, p. 44; Welge et al., 2017, p. 207

[319] Ewerdwalbesloh, 2018, pp. 5–8; J. Kock, 2015, pp. 57–59; Ueberschär & Demuth, 2015, pp. 149–161

for these practitioners too, which agrees with previous publications that see a positive impact of digital WOM [320]. The own website is also much more typical to be used to find new staff members for young practitioners than for older ones.

Figure 34 already groups the trends for younger practitioners into positive and negative trends. Positive is here defined as driving the quantifiable success and the selection is oriented following the results presented in section 5.2.2. The list is – given that a limited number of practitioners is in this age group and in fact since only one of the interviewees was as young, not seen as a comprehensive list but rather as a start to be optimized. What, however, can be seen as clear, is which of these trends drive the quantifiable success of a practice and thus, create positive income for the practitioner.

Trends in Hungary

As for Hungary not enough primary data was collected, however, out of the publications and secondary data from above, the following points can be summarized. The country's HC provision is getting decentralized since the 1980s [321], meaning that also the quantity of hospital stays is intended to be reduced (see section 0) given that HC provision in Hungary was heavily dominated by hospital stays [322]. Practice rights are being introduced, so that practitioners can receive the right to open an own practice [323] with a performance volume limit [324]. Salaries in HC are increasing in order to reduce migration [325] of professionals – especially the younger ones [326] – and make HC more attractive to locals [327]. The only interviewee in the study that was significantly younger than other practitioners (HPS3) was not financially driven at all, thus analysing statements here might not lead to reliable results. Further, practitioners are exploring alternative sources of income [328] – Hungary is, with a share of about 39% [329], a leader in European dental tourism [330].

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[320] Franz & Seidl, 2018, p. 46
[321] Gaál, 2004
[322] Orosz & Burns, 2000, p. 22
[323] Boncz, 2011, p. 35
[324] Boncz, 2011, p. 36
[325] e.g.: Mihályi, 2017a, p. 95
[326] Lénárd, 2018
[327] Government of Hungary, 2017, p. 17
[328] Rurik, 2012
[329] acc. to data from Revahealth as visualized in: Tolnai et al., 2009, p. 39
[330] "Hungarian Tourism promotes medical tourism," 2012; Kovacs & Szocska, 2013, p. 415; Kummer, 2012a; 2012b

5.3. Paradoxes: Follow-up Interviews

Figure 36: Comparison of different answers

(own development out of primary research)

With the information from the interviews in Germany and Hungary and the questionnaire in Germany, a follow up talk with five practitioners was pursued, some of which already formed part of the initial interviews (PRB1 and PRB3), some of which were new (follow-up interviewees: FU1, FU2, FU3). Certainly – with an as limited number as only five follow up interviews – this part of the study does not claim full validity. Still it may allow for some qualitative understanding that may need quantitative check-up in future studies. Goal of these conversations were to understand some discrepancies between interview result and questionnaire answers, as well as contradicting answers in the questionnaire. When analysing the questionnaire results, especially the following points were perceived as contradicting and thus were asked in a last round of interviews in order to understand why these paradox results were and where the real truth is.

First and most ironic paradox that came out in the survey was, that by 34% of all subjects planning was seen as very important or important, and, at the time these practitioners did not plan their revenues at all. 29.4% of these practitioners still achieved a revenue of more than 900k. 30.8% of the entire sample generated such revenues, meaning,

that only saying that planning was important without acting on it seems to have an impact. The follow up interviews intended – amongst other points – to understand where this mismatch of planning importance versus no revenue planning came from. Three of the participating subjects, namely PRB1, PRB4 and FU2, fell in the group of the paradox, plus also a revenue of less than 900k. PRB1 said that they did not plan revenues, but that if they employ somebody new this would obviously lead to more revenue. If, however, asked with questions such as why that would lead to more revenue and what the revenue generating actions of staff members were, then no clear answer could be given, other than them facilitating the work of that doctor. In the practice of PRB4 there – in fact – was a practice manager and also an employed doctor, however, there was no clear understanding by the owner-manager of how that doctor would generate revenue for the clinic. PRB1 and FU2 both stated that revenue planning was absolutely impossible because they were victims of health insurance funds, who may adapt their real pay at ever point in time. FU3 who in fact was the last interviewee and who planned his revenues, explained, that there was a certain insecurity in what HCIs pay, however, that most of it could be calculated.

Another irony was, that very few practices, which delegated marketing or at least included staff members in their marketing decision taking, had more than 15 employees. In fact, 12.4% of the entire sample had more than 15 employees, whereas only 2.4% of the practices that delegated such duties exceeded the number of 15 employees. As if that was not enough, only 8.3% of all practices that had leading employees for non-medical decisions or clear of such tasks exceeded 15 staff members. Further, no matter the number of employees, 22.2% of these practices had a revenue beyond 900k, whereas 30.8 of the average exceeded that – meaning that practices with more delegation were smaller and had lower revenue. This would automatically raise the question of how delegation was implemented in these practices. Most interesting interviewees for this part were PRB4 who had an employed doctor and an employed practice manager and FU3, who already planned the revenue. It turned out, that both of these practitioners were strong in delegating duties, however, their approach was very different. Whereas PRB4 had more of an approach stating that the employees were professionals in their field and would act right by experience, FU3 had very clear rules about what every single employee had to deliver and would measure their very specific actions. FU3 explained, that delegation would facilitate his work, however, would mean that he had to have controlling procedures in place in order to measure the results of his delegation. None of the

other four would know how to implement such controlling and – other than PRB4 who was working on some controlling ideas he had read about – such measures were not part of their thinking.

The survey revealed that younger practitioners tend to act stronger on CI, but consider business actions such as comparing prices as less important. The limited number of interviewees in this second round did not allow for clearing up this paradox, however, it indicates, that these practitioners lack the understanding of which action leads to result. Nevertheless, further research is required. The higher valuation of CI might be linked to personal valuation of such measures, rather than business-oriented thinking. Another irony about these younger practitioners is, that CI is more important to them than average (younger than 40: 70% versus entire sample: 68%), whereas they see marketing as less important than average (younger than 40: 55% versus entire sample: 73,9%).

6. Solutions and Focus Group Discussion

There is significant knowledge in the market about how practices can be run effectively and efficiently. A broad range of publications exist which focus on aspects such as marketing and communication. There also is a wide range of educational offers to help practitioners to run practices efficiently. However, practically none of the publications are of academic nature. This study does not only play a pioneering role in making a first step towards closing this gap academically, but also translates the knowledge that is existing so far into a clear and implementable action plan for consulting, education and collaboration. The following subchapters translate the results into and consequently present a step by step guide of how to meet the current market needs and close the gap of business thinking and knowledge in OHC practices throughout Germany. The here presented results are the outcome of research derived out of interviews and a survey, and also an FG discussion in order to try to validate the suggested solutions. The grouping in consulting, education and collaboration was chosen to meet the desire of different groups. Consulting addresses existing practice owners and any new entrepreneurs (founding or taking over); Education addresses students and practitioners that are willing to go for additional education to improve the structure of their company and to deliver a better service experience to their patients; Collaborations are interesting due to co-use of resources and on average better economic performance of practices

6.1. Consulting

In accordance with existing publications [331], it can be concluded out of this study, that adequate consulting offers are required and would add value to the HC market in Germany. Two offers are required on the market and also already existing. Consultation for founders and also consultation for practitioners that need to adapt or at least intend to improve business processes. The latter may eventually even be called turnaround management. The two processes presented focus on the consultation process and do not include the contract closure as part of the consultation process, even if many existing models do so. This was decided due the limited added value to the existing knowledge-base, whereas the consulting process as such is – to some extent – different in OHC where there is a wide knowledge gap between the companies' specialisation and the required business processes.

[331] Müller et al., 2018, p. 58

6.1.1. Foundation Consulting

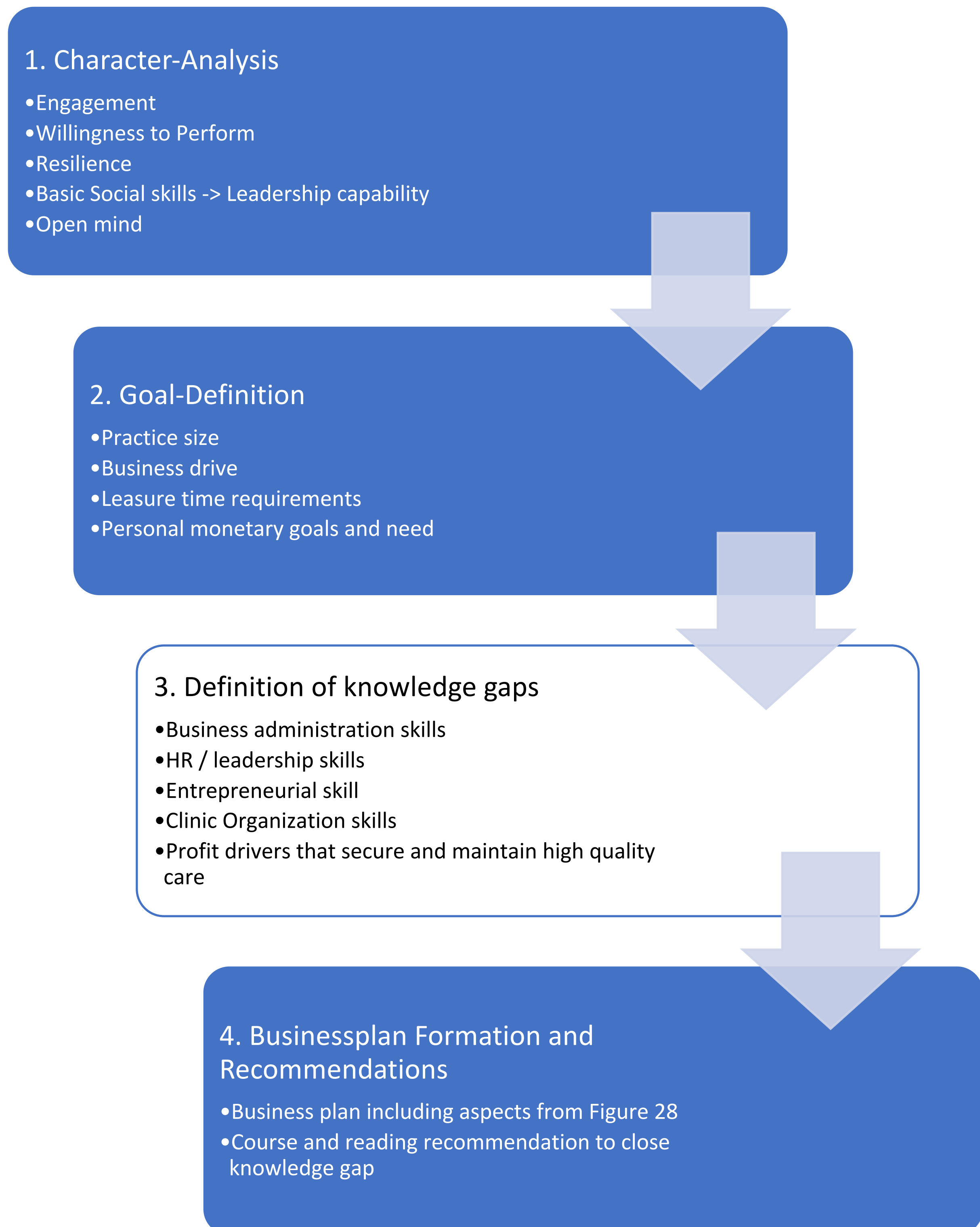

Figure 37: The Four-Step Consulting Process for New Practitioners

[332]

[332] Own Development, no main soure, consulting concepts adapted from e.g.: Engelhard et al., 2013, p. 44; "Management Consulting, a Guide to the Profession," 2002; Neuhaus, 2019

In Germany every natural person that is about to found a business is entitled to get some support for foundation consulting in order to make sure, that the business concepts of such individuals are viable. The very same is also the case for practitioners that are considering to found a practice.

Such consulting should clearly address the points shown in Figure 3, Figure 5, but also the ones in Figure 33. The potentially best way to provide consultation for practitioners and potential future practice owner managers might be the one shown in Figure 37 which was slightly adapted but also considered as viable by the FG. In fact, the adaptations that were the outcome of the focus group can be seen in yellow font. If the potential founder shows engagement, willingness to perform, resilience and some basic social competencies – as identified by Grzibek [333], see Figure 5 – then other aspects – so the practitioners in the FG - can be trained. Any training requires appropriate guidance. Social competencies and business knowledge can be learned. It seems that profit potential is high [334] and thus a lack of creativity is financially feasible. Given the very low loan failure rate of about one in 200 loans, risk readiness seems not to be that important – the normal loan failure rate is more than quadruple [335]. As for the factors derived from the literature to have a significant impact on the success of a practice (see Figure 3), these seem to also be knowledge-factors that can be trained. Foundational consulting should check upon the weighting of every one of these points in the business plan and make sure that all aspects corelate together in a way that there is an eye on the eight factors in the theory and that particularly the factors shown in Figure 33 are considered and used depending on practice team size and revenue goals. The model behaviour of CCs and the actions taken by BDs as categorized in Table 6 should be taken into consideration. Figure 37 breaks down the consulting process in a four-step process to meet the needs of the medical professional. The inclusion of the definition of knowledge gaps into the consultation process is paramount to meet the very specific needs arising through the collaboration with medical professionals.

[333] 2013, p. 20f.
[334] Jankowski, 2017, p. 28
[335] Jankowski, 2017, p. 12

6.1.2. Practitioners in Need Consulting

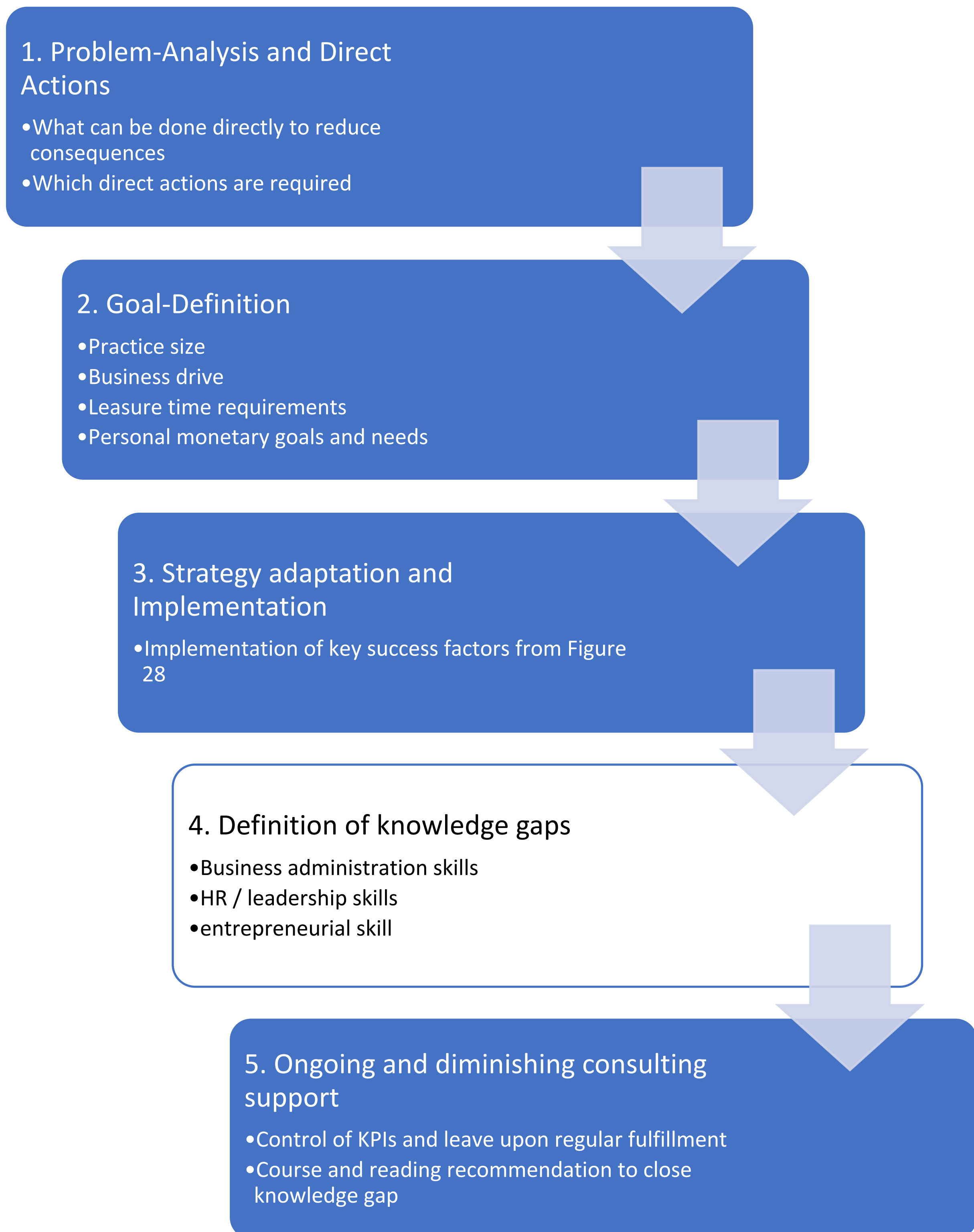

Figure 38: The Five-Step Consulting Process for Existing Practitioners

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[336] Own Development, no main soure, consulting concepts adapted from e.g.: Engelhard et al., 2013, p. 44; Kaplan et al., 2018; "Management Consulting, a Guide to the Profession," 2002; Neuhaus, 2019

The consulting approach for practitioners in need should be very different to the one for new foundations. Nevertheless, here solution-oriented consulting is important in order to create a viable enterprise that does not depend on consulting in the longer term. Therefore, here as well, the discovery of knowledge gaps is paramount. Due to limitations in time, this consultation process is not described in further detail, but only visualized in Figure 38 which however is of a self-explanatory nature.

6.2. Education Programs

"Precaution is better than cure." – Johann Wolfgang von Goethe

An alternative to consulting to practitioners in need could be trying to solve the challenge practitioners face prior to foundation by additional education. This may be achieved as much with University education alongside the usual medical education program as also with additional courses provided externally to potential founders. The following two subsections look at these, the section about additional education also addresses practitioners that have already found their practice but could need some improvement. Depending on the lack of knowledge discovered in either consultation – let it be for founders, the ones to take over or the ones to run into trouble, modules of the additional education discovered as gap of knowledge in the consultation process, could also be offered upon need.

6.2.1. University Education

One way to close the wide knowledge gap between medical graduates with extensive medical knowledge (see Appendix II black part) and professional practice-owner-manager-practitioner-entrepreneurs would be to offer business education already in a university context. Practitioners explained in the last round of interviews, that education about topics such as leadership and organization would be important no matter if opening a practice or not and thus would be enriching to every student graduating in OHC. Currently there is almost no education on a university level that addresses the specific needs of a practitioner. There is courses addressing hospital management and but other than courses in form of secondary education there is almost no specific courses on practice management in a graduate context. Given the very specific needs in HC today, such education would be of major support to the

freelance professional of tomorrow – specifically if addressing specific challenges such as accounting and controlling in the modern HC practice.

Table 7: Important Topics according to Existing Publications

Topics that are important when opening a practice	Prepared in current studies
Planning, Strategies and Goals	
Good Health Care	x
Clinic Organisation and Controlling	
HR skills, management and leadership	
Continuous Staff Training	
Patient Orientation	
Marketing	
Cooperation Models	
Entrepreneurial Skills	

(Own Development)

Figure 39: Management Course Business Administration Oral Health Care

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[337] Henrici, 2020, p. 6

In fact, a final FG of five active practitioners concluded that – when presented the current curriculum of the Charité in Berlin – there was a range of courses which were by far not as important to the practitioners as people skills or managerial capabilities. The use of this curriculum can be seen as exemplary, a comparison of the curriculum of the Charité with other curricula of ten of the 35 German Universities offering OHC education, showed no significant differences. All of the programs had only one single non-medical course often only called labour law, sometimes called labour law and medical history. The approbation guidelines in Germany include this one single course and no other non-medical training [338]. The course, so explained the FG focuses on the history of care rather than the day to day managerial or legal needs of professionals. The FG revealed that some medical courses could be reduced in their weighting as shown in Appendix II (red part). Such action would liberate time for trainings that meet the knowledge gaps practitioners really face when being in their careers. The acquired skill in fact, are of advantage to any practitioners, not just the ones that are planning to open an own practice. Practitioners need to get an introduction about all the points that were perceived as important for running a practice, not only about quality care (see Table 7). However, this set of duties may need further adaptation. Figure 39 shows what forms part of an educational training program for business administration in OHC. This specific program is only an example, however, a combination of the topics of that program in combination with the success factors evolved out of publications and again shown in Table 7 could be a good foundation for a potential study program. If combining the outcome of such potential merge with the ones addressed in Figure 33 and Table 7, measurable results should be an automatic consequence.

If all topics are combined as suggested, then such training could be offered as part of a medical degree in order to support practitioners to be better prepared for the future challenges of their work life. Following the adaptations shown in Appendix II, there would be more than enough potential to replace the equivalent of at least one course per semester. Thus, a potential management module of the medical practitioner curriculum could eventually look as shown in Table 8. The potential courses presented in the table cover all discovered parts that are required for goal and success-oriented business administration in a modern practice. Any curriculum – let it be this one or an alternative one – should cover a personality

[338] Approbationsordnung für Zahnärzte, 2019

analysis. Only if the potential future owner-manager-practitioner knows about and acts according to his goals he can be successful in his own terms in the future. Thus, the course presented as semester one course in the potential module shown in Table 8 is paramount to the success of any such module since it helps the student to appreciate the personal development opportunities and match these with potential goals for the personal future.

As far as the limited research about Hungary allows for a comment in that respect it seems that the requirements in terms of business trining significantly differ between Germany and Hungary even though the extent of business training or rather lack thereof is similar in the two nations. It seems, that – whereas the Hungarian practitioner – at least the majority of interview participants had significantly more business knowledge or was to accept business principles even by a manager in the team – the German professional, fully trained to believe being a master of any topic himself, would – so make the results assume – need more training to either accept business thinking or a business professional in his team.

Table 8: Business Curriculum as part of Oral Health Practitioner Studies

Semester	Course title	Discussion outcome
Semester 1	Personal Development	The FG initially did not have an idea about the potential course content. After explanation of this course, that often forms part of business curricula, the FG saw the value to the young practitioner.
Semester 2	HR skills, management and leadership 1	HR according to the FG was the most important challenge. Given that the survey showed that delegation reduced revenue, improvement of delegation implementation is required, thus twice the course.
Semester 3	Clinic Organisation	All FG members learned clinic organisation either by doing or by copying but not by understanding or education. There was mutual agreement that such a course should form part of the curriculum
Semester 4	Planning, Strategies and Goals	The FG members agreed that the topic as such is paramount, that they however do not have the understanding or knowledge to use tools to plan goals properly, not to mention the development of respective strategies.
Semester 5	HC Accounting and Controlling	Interestingly the practitioners stressed the importance of such a module. The FG practitioners did not plan revenues or implemented controlling actively but were curious to learn how they eventually could improve. Several stressed the importance of stressing HC accounting in education to allow them to charge for the right services and improve billing to their maximum advantage from the very beginning.

Semester 6	HC systems in DACH region, Europe and beyond.	Practitioners wanted to understand how the HC systems is structured also in other countries. It would make cooperation models possible and allow for a better interaction between professionals.
Semester 7	Marketing, Employer Branding	One of the FG members still thought that marketing was prohibited, which, however, is not the case for years. The pure fact of this believe validates the existence of such a course to avoid that old misbelieves are not conveyed to younger generations. All FG members were curious to learn how marketing could be implemented in the best of ways. There was agreement that it would be of advantage to their understanding, to be able to connect such expenditure to potential revenues.
Semester 8	Sales and Patient Communication	Patient communication was not seen as an important course – consensus was, that it is a nice add on. All but one FG member saw the importance of Sales training as part of the curriculum. One FG member had very positive experience of sales training for the entire staff of his clinic and thus eventually influenced the opinion of others and the agreement about the importance of the topic.
Semester 9	Forms of Establishment Cooperation Models	Practitioners recommended replace this part by placing more effort on clinic organisation. It was left in the suggestion since cooperation models and practice networks seem to be a viable option for the future according to research. Part three of the FG discussion proved the importance of this course, especially if it covers forms of (group) establishment alongside the cooperation models between single practices (adaptation of suggestions).
Semester 10	Entrepreneurial Skills	Nothing but agreement about it to be of advantage.

(own development out of primary research)

6.2.2. Other Education

An alternative to passing on the knowledge to the young practitioner in form of University education is additional training / teaching programs, that are outside of an obligatory study context. According to the members of the FG, the range covered on the market would exceed needs and that the offer would be very broad. Challenge to practitioners seems to be – so the FG – to choose the right course and understand quality that is offered at an appropriate price. There is a range of such training offers on the market now, however it might make sense to investigate existing offers in a way appropriate to the practitioners. The FG concluded that a potential approach to discovering the quality of such treatment currently might be to introduce a public certification program to measure educational standards. A very

efficient way to make use of such additional education might be the one suggested in the consulting section, so start with a personality and knowledge gap analysis – just like with a language test in a language school – and offer a very personalized set of classes. To some extent such offers could be looking like executive coaching today, which – in the medical field – is just not common.

6.3. Collaboration in Larger Practices

In addition to all training it might be wise to also look at alternative forms of more relevant collaboration between practitioners including the formation of practice groups or the creation of HCCs to make use of centralized structures. Looking at Hungary, the work in bigger teams brings major advantages which may support raising the per practitioner profit in practices in Germany as well. This research clearly indicated that HC practitioners in bigger practices are generating larger revenue. Considering that fact in combination with knowing where exactly the challenges are that practitioners face, and with clear solutions to make such work possible, bigger practices seem to be a viable direction. The FG, however – maybe due to sample size or age of its members – was strictly against such larger structures. No matter the potential financial gains that could be created, the practitioners in the FG preferred avoiding the potential struggles that might arise due to the required communication process and the challenge potential arising from such ownership connections. One reason for this struggle could be, that this type of collaboration requires equality and relationships based on trustworthy communication that result in common agreement. Practitioners, however, study to develop a very strong own opinion based on facts and are trained to defend this opinion. Compromise is not what these individuals are trained for, and thus, collaboration based on mutual agreement might be hard and challenging. It seems that if communication skills eventually would form part of the curriculum and if these individuals were trained in developing business consensus and agreements, then such collaboration could become more likely – however, this rather is an assumption than a real outcome of the study. Still, three of the five practitioners in the FG (unluckily all FG members were beyond forty years of age) agreed, that the right training might facilitate such options and make more complex and interconnected forms of collaboration a viable opportunity. In fact, younger practitioners – so reveals the survey – are more likely to be organized in bigger teams and in group practices than younger ones, which makes believe that younger practitioners already understand the

advantages of practice-/staff-/device-sharing, that the more experienced practitioners in the FG value significantly lower than the liberty of free decision-taking, that seems to be valued with age. PUS2 (female, 40-50 years) in the first round of interviews explained she would never consider any form of group practice. In her – as she called it – current life phase she looks for other practitioners to pursue practice sharing. An option, to practically rent out the furnished rooms with profit at her closure times / or even adapt the own opening hours to opening needs of another practitioner to be willing to use her rooms. A system as the suggested is similar to a group practice – meaning that there is no obvious legal connection between the different practitioners and that every practitioner has his own accounting to settle accounts with his very own patients.

When considering that the use of CI or the use of online recommendation platforms lead to significant revenue increase, then it turns out that collaboration may play a major role in generating a lasting enterprise. Given that collaborating practitioners can use not only outsourcing but also insourcing to increase their revenues, these all might be viable structures to create an enterprise with lasting profits. Further, the collaboration in a bigger practice might bring practitioners with different qualities to the table which as a consequence might be able to all add special qualities to the team and improve the marketing position even further.

The potential of such action is manifold. Another advantage can be found in recruiting. When working in a bigger team – the fees recruiting agencies may charge (one of the big revenue drivers according to survey results) – can be negotiated more easily which might increase profits. Such collaboration can be organized in three major ways: the group practice in form of a civil partnership owned together, the group practice in form of several sole proprietorships, owned one by one, with some commonly-used features or the structure in form of an HCC with several owners. Either one of the three options come with advantages and disadvantages that are shown in Table 9. The author does not claim for the table to be complete. It is a listing of points that came out of the focus group discussion and that was complemented by logic counter-arguments, however not by existing publications. The following paragraphs mention a range of comments about the table. Nevertheless, due to the limitations of the study not all arguments visualized in the table are fully explained in the text.

First and most common of the options of collaboration are the civil partnership. This model so the FG is common and viable for married couples. It would also be an option for

business partners, however, trust over time might become an issue. Therefore, a civil partnership can be an option, though all potential consequences must form part of the consideration. The so-called group practice intends to combine best of both worlds – single practice and civil partnership – and thus seems to be a viable alternative to the civil partnership. If well implemented it can have major advantages, however, at least in the FG the practitioners seemed not to be particularly aware of the details of this form of settling. The HCC for the practitioners in the FG was only discussed if implemented in form of a GmbH – meaning a limited liability company. Here the most significant disadvantage to the FG was the giving-up of the freelance status. The reputation of this opportunity to the members of the FG was so low, that none of these members would consider it.

Table 9: Advantages and Disadvantages of Different Forms of Collaboration

	Advantages	Disadvantages
Civil Partnership	- One accounting - Use of common resources - Maintenance of freelance status	- Common personal liability for all owners
Practice Group	- Separate liability - Use of common resources - Maintenance of freelance status	- Separate accounting (double cost) - Personal liability for own decisions - Common personal liability for any contractual agreements with practice group rather than individual - Limited knowledge about it
Health Care Centre	- Use of common resources - Employment of an endless number of doctors - Common ownership possible - Personal liability limited to medical director and CEO - Possibility to employ more doctors	- Giving-up of freelance status - Bad reputation amongst practitioners - Limited knowledge about facts

(Own Development)

It turns out that collaborations in different forms are a possibility in Germany's modern HC system. Most of these have significant advantages which, however, by practitioners are often not used, due to lack of knowledge. Even though not initially mentioned by the

practitioners in the training part of the FG discussion, the collaboration part reveals, that knowledge about company structures and forms of establishment must form part of future educational programs to make sure that potential new founders choose amongst all options they have and thus – as a consequence – lead their company to their personal definition of achievement and success.

7. Conclusion and Outlook

Health Care is becoming a competitive industry. Research supports, that competition is growing and that the current practitioners, as much in Germany as in Hungary, are not prepared to face the challenges ahead. Therefore, a change in thinking is required in order to face the challenges ahead. Business knowledge that actually exists – even if a big part is not of academic nature – needs to be partly improved, but generally applied in practice in order to succeed when running a medical company. This study gives an overview of existing published conceptual thinking in HC management and shows where the strength and weaknesses of current actors are and clearly develops a set of strategies to give existing and future practice-owner-managers a toolkit to succeed with their business.

7.1. Major Differences between Germany and Hungary

The most significant differences between Hungary and Germany are the structure of the HCS as such, the migration behaviour of HC professionals, the sources of money – thus who pays for the treatment and the improvement of care. Certainly, there are more differences, however these stand out the most. The following paragraphs explain and summarize these differences.

The System Structures

The Hungarian system used to be one of the most advanced ones globally, however that changed and at about the millennium the country's inhabitants had a very low average life expectancy. Whereas in Germany the system is Insurance based, in Hungary the system is based on a kind of a public health guaranty, meaning that – similar to the UK – patients get access to basic HC at their local doctor. In recent years care quality increased again significantly and the life expectancy in Hungary has been growing much faster in recent years than in Germany, especially when considering life expectancy for men (see Figure 13, Appendix L and Appendix N).

Migration of Practitioners

The biggest challenge in Hungary seems to be the quantity of practitioners. At the first sight the difference is not that massive, since professionals are leaving both countries, however, for the professional leaving Germany, others are entering the country. In Hungary

no other professionals replace the ones leaving the country mostly for economic reasons. The country – due to the systematic changes summarized in section 3.1.5 – is moving towards liberalized outpatient care and so the way especially ambulant care is delivered, is transforming and will continue to significantly alter in upcoming years. A growing amount of administration in both countries is decreasing the quantity of time, practitioners can care for their patients in owner-run practices. Larger systems may employ backend structures to handle at least some of the administrative requirements. That, in combination with the increasing number of doctors demanding for jobs rather than self-employment, is fuelling alternative movements such as the growing number of HCCs.

The Source of Money

In Germany practitioners can earn a valid living from their work as practitioners in the system, additional services have been growing in importance in recent years, but are an addition. In Hungary in turn practitioners can barely cover their expenses from their normal income, wherefore additional services form a major part of their income. The quantity of services offered to tourists – Hungary is Europe's HC destination number one, especially important in dental care – show how important other sources of income than NEAK are to practitioners (see section 3.2.2). The services are attractive to tourists as some insurance providers from other countries pay for them and as revenues are manifold in comparison to what NEAK pays. Tourism also grows in importance in Germany, however primary reason here is not cost saving.

Improvement of Care

It shall be mentioned here that the Hungarian system traditionally was one of the most advanced HC systems overall. Due to economic challenges the system had not developed as well as others until the millennium but is doing very well on catching up – though facing the challenge of lack of practitioners. The German system has improved over many years. Life expectancy in Germany makes the researcher believe that the system still outreaches the Hungarian one. If, however looking at the fact that the average age is increasing faster in Hungary than it currently is in Germany indicates that Hungary is working hard on improving its standard of care. A fact that is underlined by developments such as the strong

encouragement of complementary HC checks particularly in more rural and economically more challenged parts of the country.

7.2. Actions Directly leading to Quantifiable Results

It turns out that, as a result of this study, a range of actions are directly linked to higher revenue. The factors are here explained one by one including their impact on revenue. According to the research results *Cooperation Models* are of very significant positive advantage to the revenue of practices with smaller teams. Nevertheless, investigation might be necessary to find out whether practitioners have full understanding of all options that exist with regards to cooperations. The study clearly shows that *Corporate Identity* is linked to revenue. However, it turns out, that CI is rather not to be implemented than only a bit. Practices that implement complete CI measures harvest a positive impact on their revenue. However, all the ones that do only place minor importance to CI perform worse than the ones that do not value CI at all. The use of *Online Recommendations* seems to be the way to go. Practices that use Jameda as a tool are experiencing significant increase of revenue. Online recommendations seem to be the continuation of the modern WOM. Using recommendations actively as a tool, seems to be the way to go and online its modern version that in fact has a more quantifiable impact. *Outsourcing* has a close connection to revenue. Practices that outsource grow their revenue, if, however, outsourcing only grows revenue due to different time allocation or if it really grows profit due to increasing efficiency cannot be concluded out of this study. What can, however, be said is, that, due to the extent of revenue increase, efficiency increase is more likely. All practices, no matter their size had much higher revenues when working with recruiting agencies. Working with recruiting agencies seams to help practitioners find the right staff and focus on their work rather than on finding new team members. *Experience* turns out to be of advantage especially if not only when considering to run a bigger practice. Practitioners that have experience in five or more practices are especially professional and doing better in bigger practices. In smaller practices experience does not pay off.

The factors that were presented here are the ones that are most closely linked to quantifiable business results. Still, these factors as such are just single actions. If an entire strategy is implemented such factors should form part, but cannot be understood as exclusive

actions. To meet the need of business thinking in OHC an entire strategy is required as laid out in the following section.

7.3. Solutions and Resulting Recommendations

This study clearly shows, that definitely in Germany and according to the interview subjects, also in Hungary, there is a massive gap between educational offers for practice management on a University level addressed to practitioners and the administrative requirements practitioners face when running a practice. This major gap could be closed by pursuing the four recommendations that form the result of this study. The recommendations are education ideally straight at University or additional course to graduated practitioners, consulting services to practice founders and practitioners in need and also the active support of the development of larger practices – in order to meet the administrative and economic challenges as a group, rather than as individuals.

University Education

The educational offer to practitioners on a University level is of very high quality, when considering the medical content of the course and the qualifications of the graduate. In the modern surrounding, however, it still is a viable and common option for graduates to found or take over and thus run their own practice. Potential entrepreneurs are fully lacking training on all important aspects other than the medical. The curriculum that was developed as a result of this study – even in an adapted form – could be a viable way to solve this challenge and structurally meet the need of business thinking in OHC.

Additional Education

Currently loads of relevant educational offers are provided by a range of private academies. Even programs such as “Betriebswirt der Zahnmedizin” (Business Administration for Dental Health) are offered and – looking at the course content – do in fact prepare very well. Nevertheless, it seems that many if not most of such offers are driven by profit-oriented companies and thus not accessible to many graduating practitioners who are about to found and lack the financial background to go for further education which – so show the results of this study – are of major advantage if not necessary for this research. It is becoming increasingly common, that educational offers of non-medical nature are being counted as part

of the regularly required training of practitioners (see above: business administration for dental health), however, there could and should be much more first of these courses and second enhancement of such training.

Consulting

In Germany every individual has access to funding support for getting consulting when founding a new business. As a result of this study, a consultation process – as much for new entrepreneurs as for existing owner-managers, has been developed. Focus of these consulting models again is – if the practice is running to solve the challenges the practitioner is confronted with, however primarily is – to discover where the gaps in business thinking are in order to close the gaps, let it be with reading recommendations or courses meeting the very specific needs of the practitioner.

Group Practices and Health Care Centres with Centralized Structures

Investors are entering the market particularly via the use of tools such as HCCs. No matter how ownership looks like, this study has shown that HCCs tend to have much more structure in place. It was shown, that within the limitations of this study, HCCs place more weight on planning, less on care quality and more on marketing. It also seems more common to have budgets in place and have responsible employees to take decisions.

HCCs can for example be organized as GmbH. By law ownership by doctors is possible. It seems that one way to proact the challenges ahead is for doctors to group together and bundle forces. If organized as a society the structure could be owned by the doctors working for it. Good management could be put in place and shares could be handed depending on seniority. That way the positive of both systems could be combined. Again, the biggest challenge is, to make sure, that practitioners are aware of the systemic possibilities – a topic that – if not educated in university education in the future – is often not seen by individuals who end up copying existing systems. The high quality of individually performing doctors and the economic success drive of structural organisation combined should lead to significant quantifiable results. If such an organisation should rather be organized as a cooperative of individual practices or as an HCC can be discussed, however it would make sense to combine forces for departments such as reception, medical equipment ordering, accounting, marketing, laboratory (if applicable) or similar. By doing so, doctors could still keep ownership

of their own practices in a future-oriented way and take economic profit for better organisation and improved structures.

7.4. Political Discourse

The question of university education about practice management in Germany is much more of a political question, than anything else. Currently the German HC system is politically being moved away from being run by individual HC practices towards HC services provided by HCCs and thus not by individual practitioners. The Charité in Berlin, which is one of Germany's most prestigious HC education institutions, does make a first attempt in offering some business education to HC professionals. Nevertheless, and all efforts appreciated, the question here is, whether managerial training can form part of medical education studies by definition and thus in the entire country.

It seems, that such a movement is not, where politics are developing towards. Overall the HC system in Germany is being nationalized and public ownership of HC institutions is increasing. If anything could be done here to preserve the practitioner's strong freelance position in Germany, then dental societies could try to encourage the adaptation of curriculums in order to allow HC professionals, who intend to offer ambulant care services, to participate in trainings for practice management and other topics that evolved as knowledge gaps in this study.

7.5. Transferability of Research Results

Business knowledge is of advantage in many fields. Companies that have standardized procedures in place perform better. As a result of this study a range of actions were revealed, some of which eventually are transferable to other industries. These are – including their impact potential –explained in the subsequent paragraphs.

Practices pursuing a clear strategy perform better. A fact that should hold true for almost all industries. Dentistry – as much as all fields in medicine – are, however, very limited in their flexibility of offers. Companies – especially SMEs – need to be agile – in order to be capable to react to market changes. Pursuing a strategy will always have a positive impact, however, the definition of how limited a strategy can be, may vary depending on the industry.

Especially SMEs that are challenged with meeting their company objectives cannot afford employing specialists for all specific business needs. *Outsourcing* thus can be an advantageous way to proceed. If outsourcing *recruiting* will have the very same positive impact in all industries is to be investigated, however, it certainly can be said that SMEs have limited experience in recruiting and thus are challenged with this complex duty which – eventually – is very different to their business core duties. Working with agencies may improve the quantifiable result in a sense, that specialists run the staff finding process, allowing the team of the understaffed business to remain in their area of qualification and focus on their business and customer's needs. If revenue potential in the respective industry is high enough (number to be calculated depending on a range of variables), then it can be assumed that working with a recruiting agency is a valid way to proceed and create measurable return.

Today there is a strong trend towards the evaluation of services and even more so to sharing the rating of previous customers by intermediaries who are neutral, and thus do not influence the shared opinion. This is a general trend not limited to dentistry or health, but can be seen in all industries. The right neutral intermediary for the industry varies, however, the active use of online recommendations can be seen as a modern and more impactful replacement of WOM recommendations.

Corporate Identity goes beyond marketing representation with colours, logos, or memorable shapes and includes the entire company behaviour – let it be internally or externally. Here – due to limited understanding of practitioners of the latter aspects – research was limited to the complete appearance rather than behavioural aspects. Still, it can be said, that any development of designs or colours is costly, not only in terms of time, but also in terms of money. Companies that go the full way certainly have a positive return of their actions since mostly also professionals are involved. Half-hearted implementations of CI appearance, however, so shows this study are in dentistry not of any positive impact. It can be assumed that this is similar no matter the industry. A complete appearance is memorable, a sometimes-used logo just is not. Both, however, cost time. Even though, this cannot be researched easily it might even be concluded, that any action that is fully decided for or against can have a positive impact, whereas any action that is not completely chosen for is less likely to result in measurable return.

It was here revealed, that strong field experience creates a measurable negative impact (not significant) on small owner-run practices and a measurable positive impact on

larger ones. This impact of experience – it can be assumed – is expected to be similar for different industries. Experienced professionals delegate a range of duties, since they get used to such actions out of experience. If they do so in a smaller team, staff may not perform adequately on core duties and thus impact revenue negatively. For practitioners it was found that the magic number is about ten team members. Due to the above-mentioned reasons, the impact should be similar. The team size for clinics up to which the impact of experience is negative is about ten team members. This number is expected to vary by industry and the operative involvement of the owner-manager.

7.6. Research Objectives and their Completion

This study was structured around nine objectives (see Appendix A), that all were completed throughout the research process pursued in this study. The first objective – to understand the current state of academic research and business publications – is completed in chapter two. The HC systems in Hungary and Germany – as in objective two – are introduced in chapter three. Third objective was the analysis of secondary data about Germany and Hungary, which was completed in the fourth chapter. The measures taken to conduct the primary research required to complete objectives four, five and six are shown in chapter five. The results of objective four, the pre-test interviews conducted prior to the questionnaire, are explained in chapter six. The finally conducted quantitative survey including its results – objective 5 – is discussed in chapter six and seven with a focus on factors influencing the quantifiable success of OH practices today. The results of the sixth objective, to understand paradoxes that arose in the research and test these in interviews, are discussed in the seventh chapter. Last but not least, solutions derived out of this study, were discussed in a focus group – objective seven. The results of this discussion are analysed and summed up in the eighth chapter. The study closes with a conclusive chapter that presents the major take-outs of the conducted research in a comprehensive way.

7.7. Research Recommendations

Literature analysis has proven, that so far there is practically no academic literature about the business knowledge required to run a small to medium size HC practice. This study lays the ground for such academic research in the future by qualitatively investigating the

markets in Europe, at the example of primarily Germany and also Hungary, and beyond. The study revealed that a significant amount of non-academic publications at different qualities exists, however, that practitioners mostly do not use these accessible resources when facing challenges in their practices. Here are a range of recommendations is presented that should be considered in future research focusing on HC and OHC management.

Reveal the Content of the Ideal Management Course

It seems that courses – offered particularly to practitioners that are about to found – are the way to go – let these courses be provided at university or at private training institutions. Based on these grounds an upcoming research should evaluate the exact content for classes that practitioners require in order to succeed. Practitioners are highly trained and often very smart individuals that require very specific preparation. Courses are offered by a wide range of different academies. Future research must investigate whether the range of currently offered courses on the market really provides the right knowledge. Further some of the knowledge that is shared is purely experience based and not of theoretical or academic nature. Training action strategies rather than learning purely from examples might here be the way to go, especially since examples are limited by the circumstances of their happening whereas theories and strategies are designed for multi-applicability.

Investigate the Relevance of Education on a University Level

As in many fields also in dental practitioner education, a wide range of courses is offered, that is historically required for graduating as a dentist, however, is not helpful in the future work life as a practitioner. This study, due to scope only, made a very first attempt to understand which courses, that are currently obligatory, could be avoided in the future design of curriculums for OH practitioners. Here, due the scope of the study, an alteration of the curriculum was only discussed with 5 interviewed professionals. Further quantitative research must show, which courses are perceived as less important by graduates and thus could be deleted from / or shortened in future University training.

One of the research outcomes was a potential study curriculum evolved out of demand and market offers for medical students to be integrated in the OHC practitioner curriculum. This here shown version is a concept, presented as an example. Future studies – if such efforts shall be pursued – might need to look in more detail at how such study programs could be

structured and how their design could make sure that all challenges, practitioners face, are covered.

Research the Relation of success influencing factors with other revenue clusters

One limitation of this study arises out of the revenue clusters which were used in the survey. The cluster choice of up to 300k, 300-600k, 600-900k and 900-1200k proved to be matching the research group. However, it might have been wise to add two more groups say 1200-2000k and more than 2000k. If this would have been done in this study, then – especially for the grouping of practices with more than 10 employees – a more valid average revenue could have been calculated for the single factor analysis e.g. in Figure 31. The results here are valid, however, the real impact of single influencing factors and their relationship to revenue could eventually be more reliable for the group of bigger practices.

Collaborate with Health Insurances, Clearing Offices or Banks

The results, especially the revenue implications of specific actions, underlie a social desirability bias [339], no matter the anonymity of the respondents answers. A potential collaboration with either a clearing office, a health insurance or a bank that focuses on practitioners would eventually avoid the here included bias and create more valid results through proven data rather than potentially biased interviewee answers. Nevertheless, due to the quantity of respondents, it can be assumed, that most of the actions that were considered as relevant in their impact on revenue do have a relevant impact, whether, however this impact is as heavy as concluded in this research must be investigated in future studies that are more number-based and rely less on the respondents of single interview subjects.

Learn more about Actual Business Planning

It turned out that in the literature business planning played a major role. In Hungary as much planning, as also controlling turned out to be much more implemented than in Germany. The quantitative questionnaire revealed that almost 63 % of all clinics do not plan their revenues and goals at all. However, 53 % of these that didn't plan, still saw planning as either very important or as important. This reveals that further research is necessary about

[339] Fisher, 1993, p. 303

the extent of actual planning and if formalisation of such procedures in Germany can enhance business success in the future.

Investigate if Current Courses meet the Knowledge Gap

This study has shown a major gap of knowledge about topics such as official cooperation models or revenue and profit planning. Future investigations have to look at currently offered courses and classes – respectively pricing and quality – as to understand if there are appropriate offers on the market that do not only claim to offer the right service but really close the knowledge gap.

Understand the Challenges of Group Practices

Within this study only very few group practices took part. It might be interesting to find out more about such group practices and the challenges they face. If a group practice has an ideal form of organization, then basically every practitioner's practice is an individually managed practice that is having individual bills with the patients. Only some of the resources such as reception staff, cleaning stuff, printers or X-rays – to be individually defined – are being used by the practices together. If these challenges are understood better, specific advice can be given in order to make sure that practitioners take maximum advantage. In case it turns out, that this form of practice offers most advantage to individual practitioners, such organizational form could be explained in the potential business curriculum at university too.

Investigate other Single Health Care Fields

This study has looked exclusively at OHC professionals since looking at all practitioners would have exceeded the scope of the study and also would not have allowed to make clear statements about the population due to its diversity. Future studies should look at other HC professions, particularly general practitioners, who actually face the market changes due to HCCs for a much longer period than OH practitioners. When investigating other fields, it might also be interesting to compare the extent of change in single specialisations

Observe Changes in Specific Markets

One outcome of this research was that it could be an option to offer business training to medical practitioners as part of their curriculum. It might be interesting to investigate if some other countries do offer such courses as part of the curriculum and to find out if

practitioners that are actively working after graduating with such courses face different challenges than the ones before or without such training.

Further, the study showed a trend for Hungary, being that business thinking in practices is seen as more important in interviews than it is in Germany. Here further investigation and looking at additional countries would help to understand better if the business approach or its lack is more of a regional issue or more linked to the character of people choosing to become medical practitioners.

8. Summary

This study shows the growing need of business thinking in Oral Health Care. It is pioneering in the field of investigating success influencers in Oral Health Care from an academic perspective. Qualitative interviews, in Germany and Hungary, lead to understanding the field as a pre-test. The aim was to realize the business requirements of health care practices and health care centers, through interviewing practitioners and their staff. This happened prior to rolling out a questionnaire to several thousand dentists out of which about 500 participated in the quantitative part of the study. A small post-test and a focus group (both not claiming academic validity) round up the primary research of the study.

Business education within the different medical professions is still neglectable in Germany and Hungary. The market of new medical practices is evolving and requires modern and flexible business understanding and processes in order to not only treat patients but also deliver economic value. Existing Oral Health Care management publications agree that well-structured, strategic business planning is necessary for lucrative practice management.

A range of aspects influence the quantifiable success of companies. Quantitative testing in Germany relapses to conclude that some actions lead to quantifiable results, however, that an entire strategy is required to take maximum profit out of an oral health care practice or health care center. Planning, strategy- & goalsetting, high quality health care, quality management, organization, controlling, human resources management, staff training, staff happiness and corporate identity are just some of the key concepts elaborated here. The use of complete corporate identity (or none, not just a bit), online recommendations on specific platforms, outsourcing and the collaboration with recruiting agencies are actions taken by practices that excel, no matter their size.

The study closes with a consulting plan and also the elaboration of an oral health care business administration module and how this could be integrated in a university context addressing nascent practitioners in general and their very specific needs when focusing on the German market.

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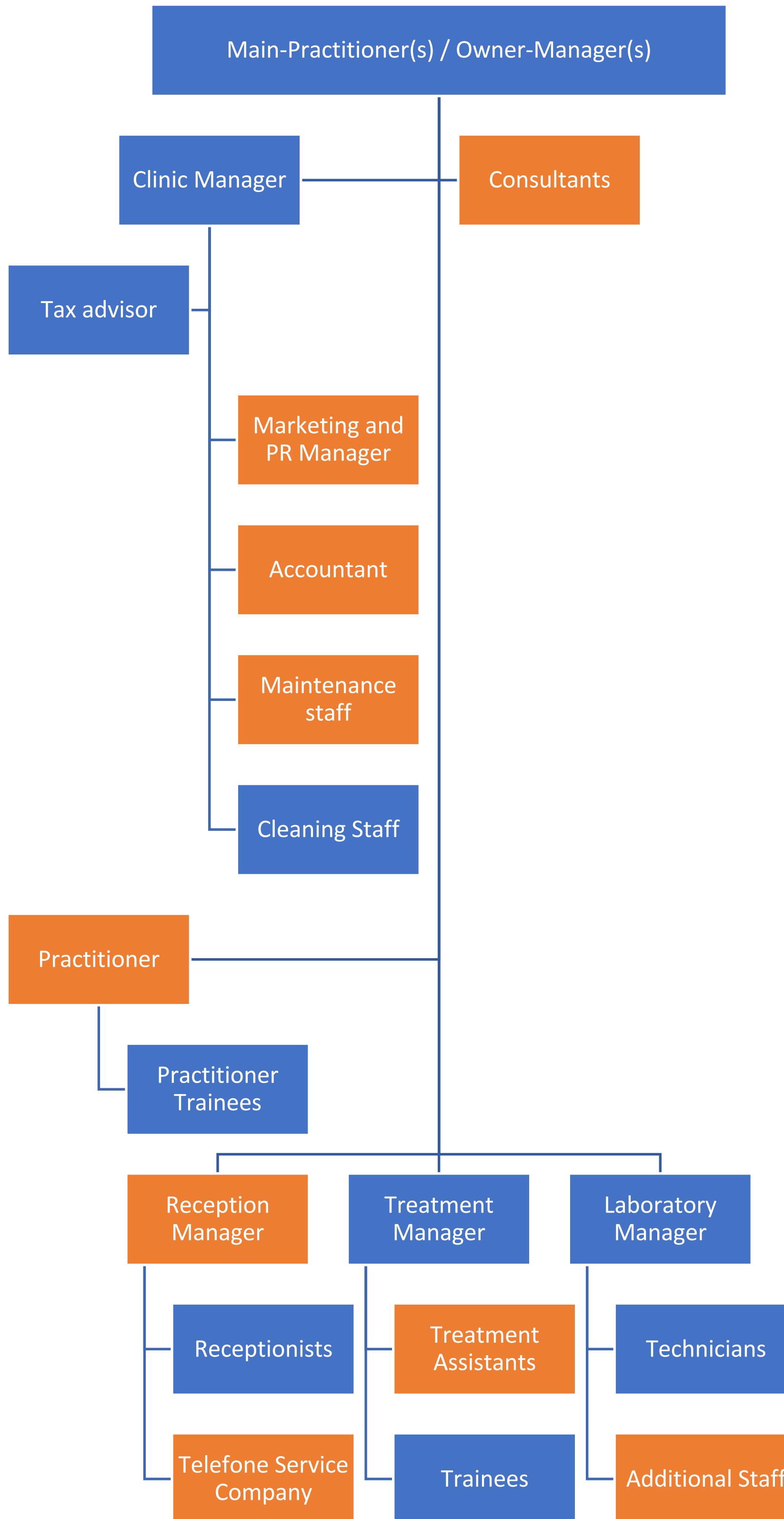
11. Appendices

Appendix A: Objectives of the study

p. 2, 26, 60, 61, 62, 62, 66, 67, 128

Objective	Description
Objective 1:	•Understand the stakeholders in HC and investigate existing publications on business thinking in HC and OHC.
Objective 2:	•Introduction of HC systems in Germany and Hungary.
Objective 3:	•Secondary data analysis of HC and OHC in Germany and Hungary.
Objective 4:	•Primary qualitative pre-test research to understand the current extent of business thinking in the market today and develop a quantiative questionnaire.
Objective 5:	•Primary quantitative research with surveys to draw conclusions about the extent of business thinking in the market and its impacts on the quantifiable success of OH practices today.
Objective 6:	•Primary qualitative post-test research with a limited number of German practitioners to understand some paradox results.
Objective 7:	•Develop solutions to fill the practitioners business knowledge gap and make a first test of these solutions in a focus group.

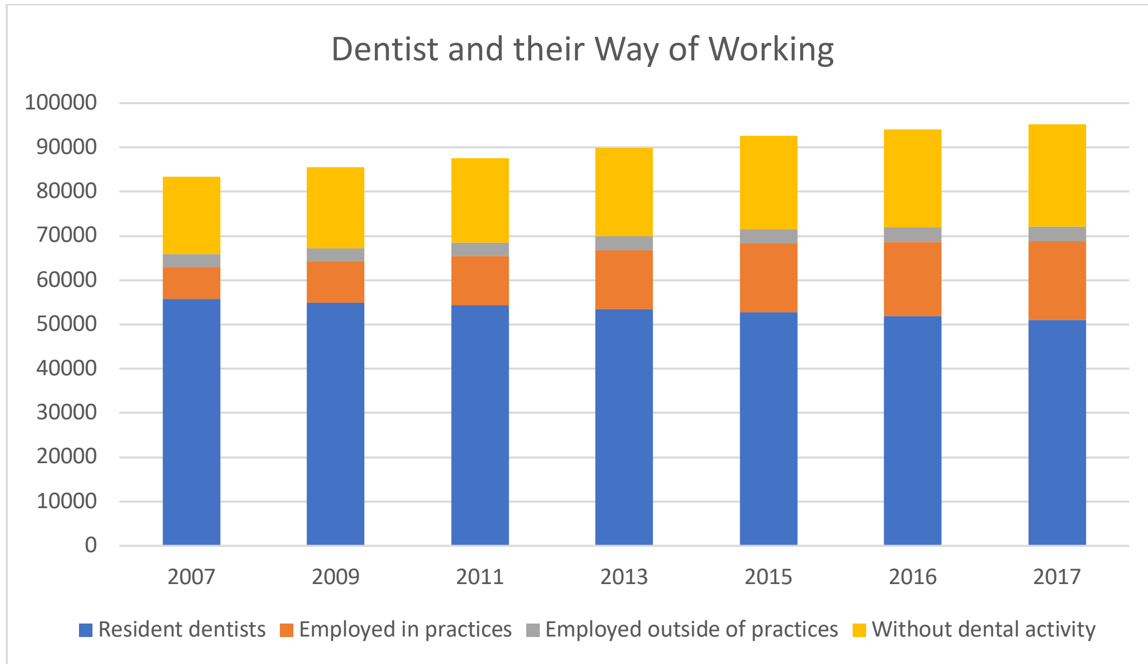
Appendix B: Structural Organisation of medium (blue) and bigger practices (blue orange) [340], [341], *p. 14*



[340] (adapted from: Nowak, 2008, p. 30
[341] with business information e.g. from Hungenberg & Wulf, 2015; Welge et al., 2017)

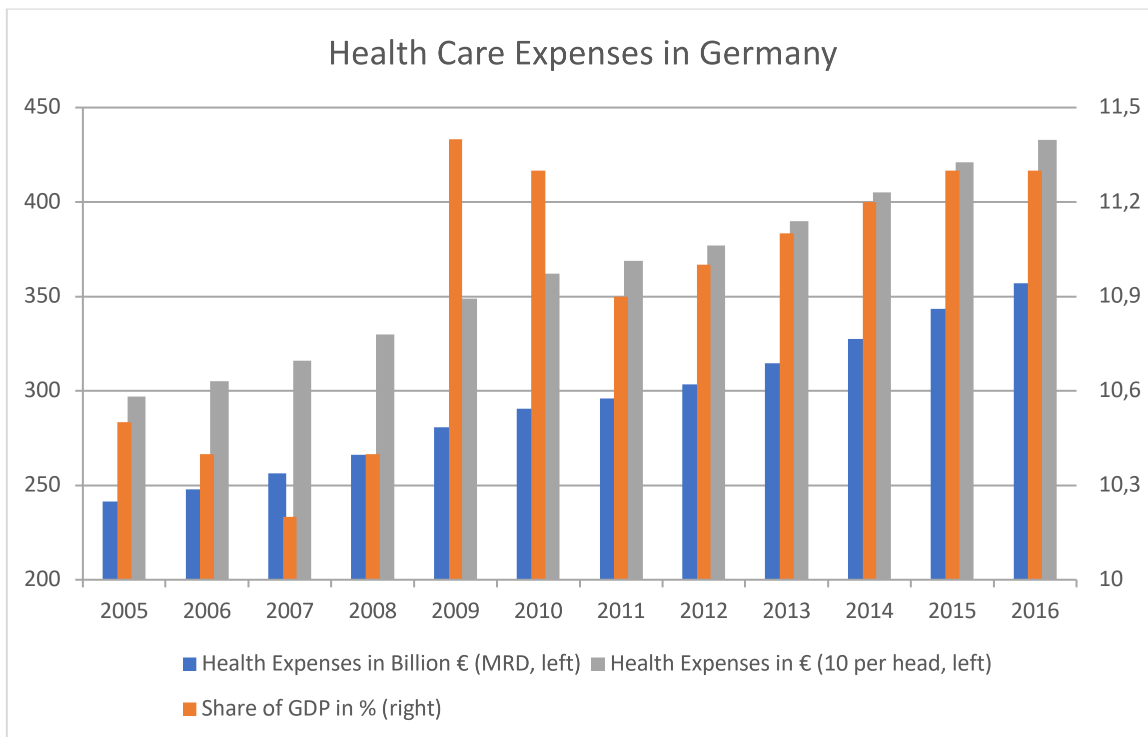
Appendix C: Dentists in Germany by status of employment

342, p. 31



Appendix D: HC expenditure in Germany

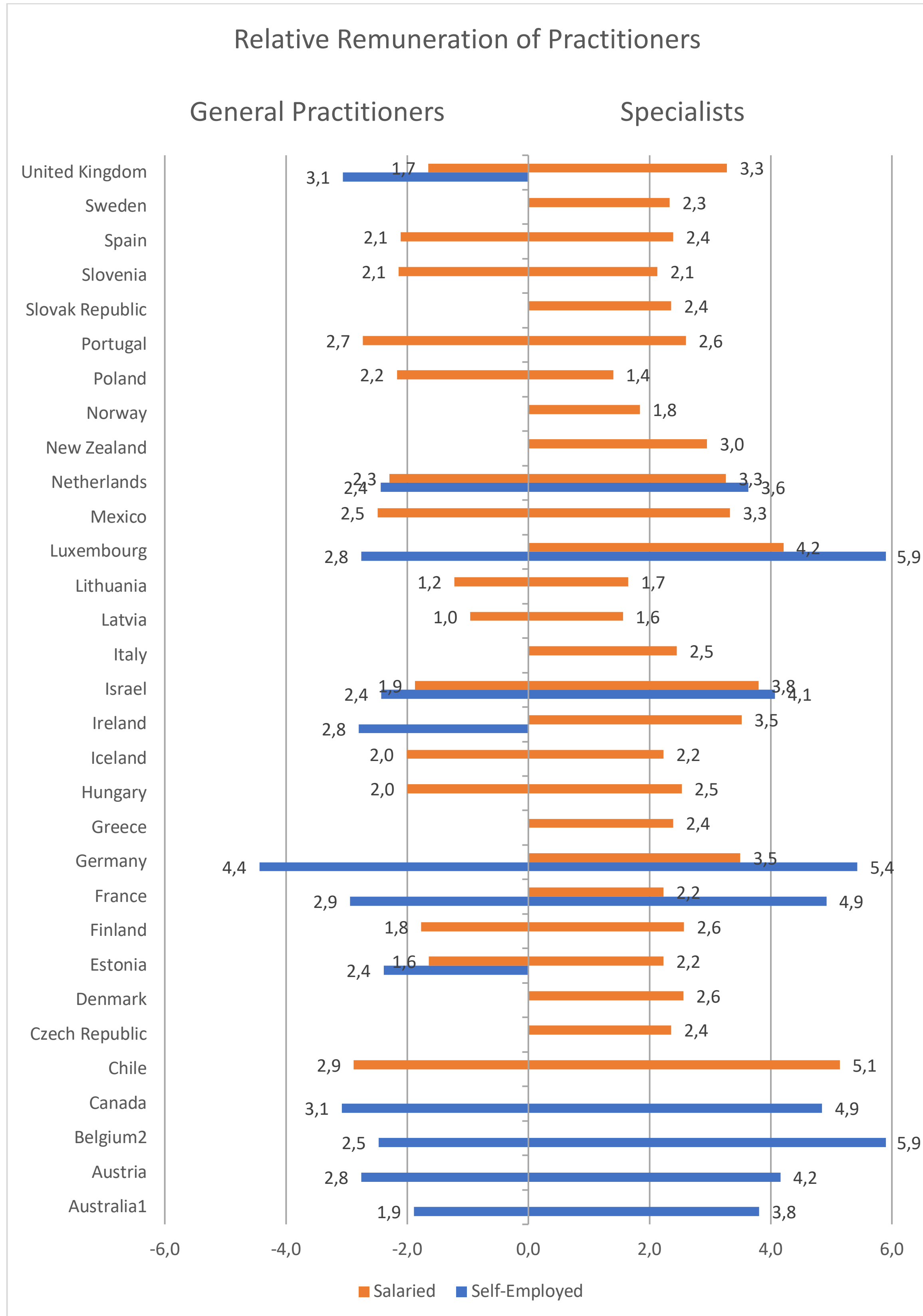
343, p. 35, 35



[342] Bundeszahnärztekammer & Kassenzahnärztliche Bundesvereinigung, 2019
[343] Statistisches Bundesamt, 2019

Appendix E: Relative remuneration of doctors

[344], p. 35, 53, 55



[344] Bennetts, 2011, p. 9; OECD Health Statistics 2019 and OECD Employment Database 2019, 2019

Appendix F: Care supply rate Germany

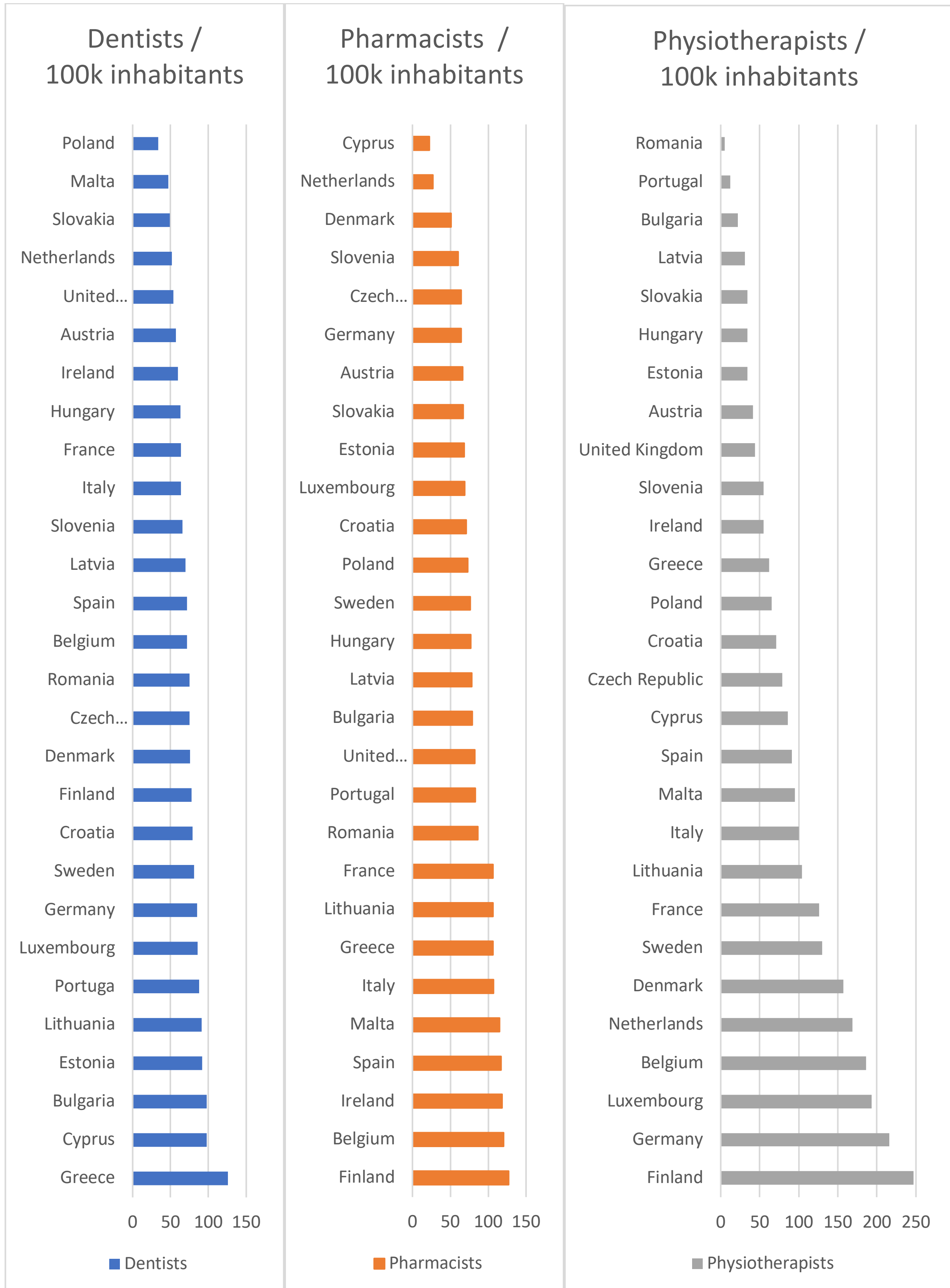
[345], p. 37

Year	Number of active physicians	Number of active physicians per 10k inhabitants	Number of active hospital beds	Hospital beds per ten thousand inhabitants
1990		21,498		
1991	297.803	27,539		
1992	307.994	28,228		
1993	317.737	29,182		
1994	326.760	29,953	619.810	76,12
1995	335.348	30,594	610.813	74,8
1996	343.556	31,081	595.367	72,7
1997	350.854	31,274	582.185	70,95
1998	357.727	31,749	573.416	69,9
1999	363.396	32,064	567.143	69,09
2000	369.319	32,576	561.606	68,33
2001	375.225	33,029	554.604	67,36
2002	381.342	33,339	547.284	66,35
2003	388.201	33,670	541.901	65,67
2004	394.432	33,905	531.333	64,4
2005	400.562	34,124	523.824	63,52
2006	406.974	34,554	510.767	62,01
2007	413.696	35,051	506.954	61,63
2008	421.686	35,624	503.360	61,3
2009	429.926	36,409	503.341	61,48
2010	439.090	37,320	502.749	61,49
2011	449.409	38,927	502.029	62,54
2012	459.021	39,602	501.475	62,35
2013	470.422	40,480	500.671	62,08
2014	481.174	41,168	500.680	61,83
2015	485.818	41,342	499.351	61,13
2016	496.240	41,976	498.718	60,56
2017	506.014	42,621	497.182	60,15

[345] own design, adapted to available information from Hungary for comparative reasons *Gesundheitsberichterstattung des Bundes*, 2019

Appendix G: Density of Medical Practitioners in Europe

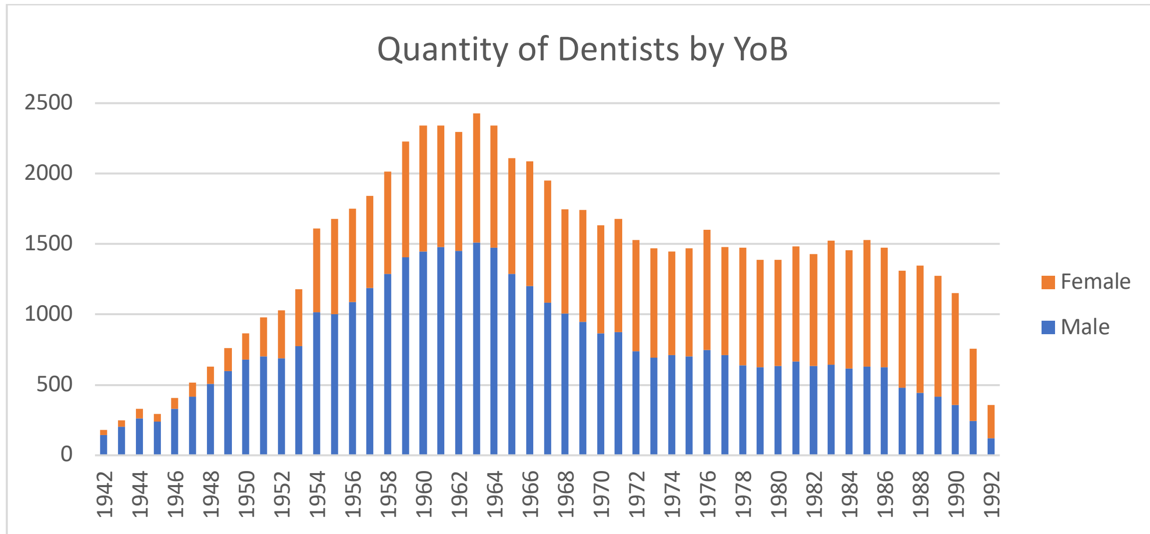
[346], p. 38, 39



[346] Eurostat, 2017

Appendix H: Dentists in Germany by Year of birth and Gender

[347], p. 38, 39



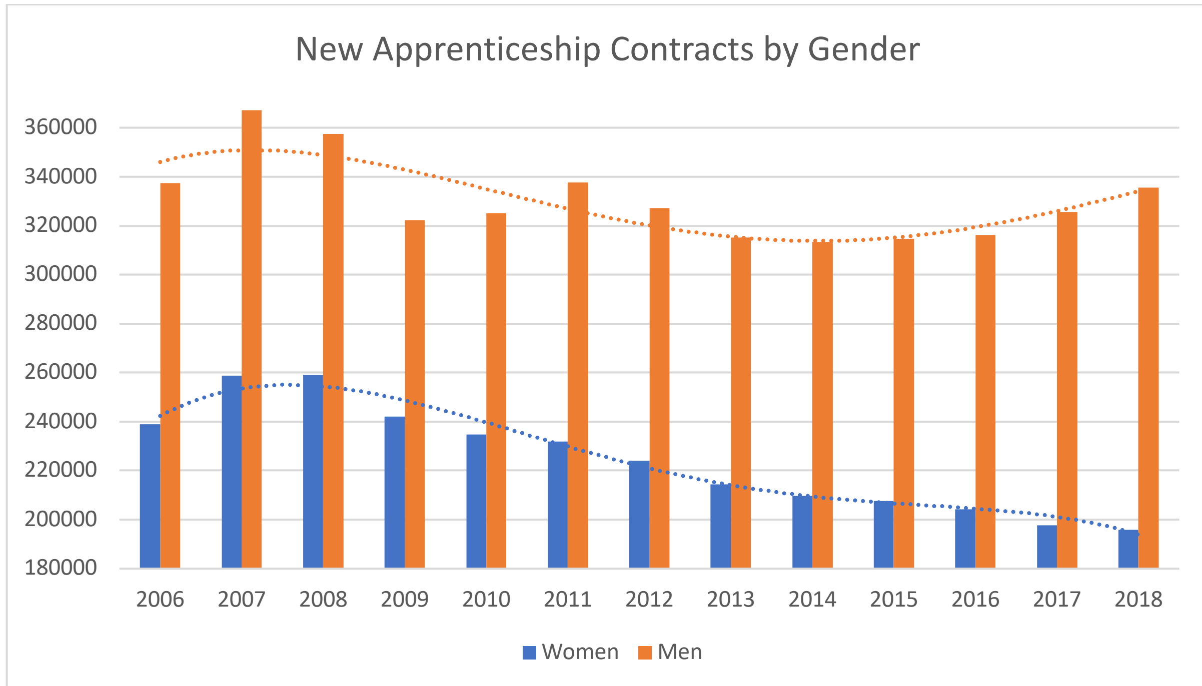
Appendix I: The 25 Mostly Completed Apprenticeship Jobs by Women in 2018

[348], p. 40

[347] Bundeszahnärztekammer - Arbeitsgemeinschaft der Deutschen Zahnärztekammern e.V. (BZÄK), 2017
[348] Bundesinstitut für Berufsbildung [Federal Institute for Professional Education], 2018a, p. 1

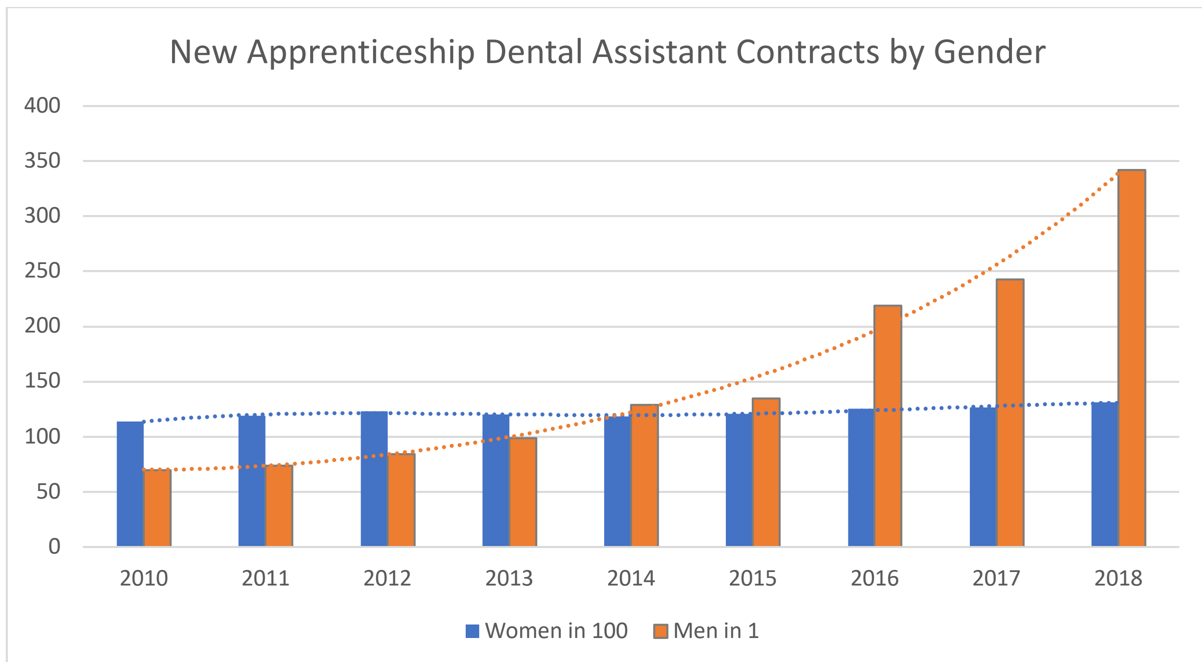
Appendix J: New Apprenticeship Contracts by Gender

[349], p. 40



Appendix K: Trends for the apprenticeship for Dental Assistants

[350], p. 40



[349] Bundesinstitut für Berufsbildung [Federal Institute for Professional Education], 2018c, p. 1

[350] Bundesinstitut für Berufsbildung [Federal Institute for Professional Education], 2010a, p. 1; 2010b, p. 9; 2011a, p. 1; 2011b, p. 9; 2012a, p. 1; 2012b, p. 8; 2013a, p. 1; 2013b, p. 8; 2014a, p. 1; 2014b, p. 7; 2015, p. 1; 2016a, p. 7; 2016b, p. 1; 2016c, p. 6; 2017a, p. 1; 2017b, p. 6; 2018a, p. 1; 2018b, p. 5

Appendix L: Average life expectancy Hungary

[351], p. 46, 53, 121

The single values represent the life expectancy at completed age in first column

Gender Completed age	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Male												
0 years	68,2	68,3	68,3	68,6	68,6	69,0	69,2	69,8	70,1	70,5	70,9	71,5
40 years	30,4	30,4	30,3	30,6	30,5	30,9	31,0	31,5	31,6	32,0	32,3	32,9
60 years	16,0	16,0	15,8	16,1	16,0	16,3	16,3	16,6	16,6	16,8	16,9	17,1
Female												
0 years	76,5	76,6	76,5	76,9	76,9	77,4	77,3	77,8	77,9	78,1	78,2	78,7
40 years	37,9	38,0	37,8	38,1	38,1	38,5	38,5	38,8	38,9	39,1	39,2	39,3
60 years	20,7	20,7	20,6	20,9	20,9	21,1	21,2	21,4	21,5	21,6	21,6	21,7

Appendix M: Care supply rate Hungary

[352], p. 47

Year	Number of active physicians	Number of active physicians per 10k inhabitants	Number of active hospital beds	Hospital beds per ten thousand inhabitants
1990	32.883	31,7	101.954	98,3
1991	33.859	32,6	100.747	97,1
1992	34.546	33,3	98.532	95,1
1993	34.093	32,9	100.438	97,0
1994	34.622	33,5	98.453	95,2
1995	34.634	33,6	92.603	89,7
1996	35.026	34,0	91.514	88,8
1997	35.477	34,5	83.485	81,2
1998	36.143	35,2	83.770	81,7
1999	36.386	35,6	83.992	82,2
2000	30.695	30,1	83.430	81,8
2001	33.088	32,5	80.504	79,1
2002	37.295	36,8	80.340	79,2
2003	38.241	37,8	79.832	78,9
2004	38.877	38,5	79.605	78,8
2005	32.563	32,3	79.605	79,0
2006	35.572	35,3	79.847	79,3
2007	32.202	32,1	71.902	71,6
2008	36.088	36,0	70.971	70,8
2009	35.196	35,1	71.064	71,0
2010	33.943	34,0	71.216	71,3
2011	34.736	35,0	71.160	71,6
2012	36.250	36,6	68.845	69,5
2013	37.711	38,2	69.184	70,0
2014	38.994	39,6	68.774	69,8
2015	35.854	36,5	68.613	69,8
2016	37.598	38,4	68.301	69,7
2017	39.132	40,0	68.263	69,8

[351] own table, adapted from Vukovich et al., 2013
[352] own design, Hungarian Central Statistical Office, n.d.

Appendix N: Average life expectancy Germany

[353], p. 53, 121

The single values represent the life expectancy at completed age in first column

Gender Completed age	2000 / 02	2001 / 03	2002 / 04	2003 / 05	2004 / 06	2005 / 07	2006 / 08	2007 / 09	2008 / 10	2009 / 11	2010 / 12	2011 / 13	2012 /14	2013 / 15	2014 /16	2015 /17
male																
0 Jahre	75,38	75,59	75,89	76,21	76,64	76,89	77,17	77,33	77,51	77,72	77,72	77,9	78,13	78,18	78,31	78,36
20 Jahre	56,06	56,27	56,55	56,85	57,24	57,49	57,74	57,9	58,05	58,25	58,24	58,41	58,61	58,66	58,79	58,83
40 Jahre	36,94	37,12	37,37	37,63	37,98	38,2	38,44	38,59	38,73	38,93	38,92	39,06	39,24	39,29	39,42	39,45
60 Jahre	19,68	19,84	20,05	20,27	20,58	20,75	20,93	21,04	21,16	21,31	21,28	21,38	21,51	21,52	21,62	21,62
65 Jahre	15,93	16,07	16,26	16,47	16,77	16,93	17,11	17,22	17,33	17,48	17,46	17,55	17,69	17,71	17,81	17,8
80 Jahre	7,09	7,14	7,24	7,35	7,51	7,56	7,65	7,67	7,71	7,77	7,68	7,7	7,79	7,81	7,91	7,92
female																
0 Jahre	81,22	81,34	81,55	81,78	82,08	82,25	82,4	82,53	82,59	82,73	82,8	82,88	83,05	83,06	83,2	83,18
20 Jahre	61,76	61,87	62,07	62,28	62,56	62,72	62,85	62,97	63,03	63,16	63,22	63,29	63,45	63,46	63,61	63,6
40 Jahre	42,19	42,28	42,46	42,66	42,92	43,08	43,2	43,32	43,37	43,5	43,57	43,63	43,77	43,79	43,93	43,92
60 Jahre	23,84	23,92	24,08	24,25	24,49	24,61	24,71	24,81	24,85	24,96	25,03	25,07	25,19	25,19	25,32	25,28
65 Jahre	19,55	19,61	19,77	19,94	20,18	20,31	20,41	20,52	20,56	20,68	20,74	20,79	20,9	20,9	21,03	21
80 Jahre	8,58	8,57	8,64	8,72	8,87	8,92	8,97	9,04	9,06	9,13	9,17	9,2	9,29	9,3	9,43	9,42

Appendix O: Interview Structure in German (Germany and Hungary)

p. 63

1. Geschlecht
2. Unter 40, 40-50, über 50
3. Beruf
   - ⇒ Fachzahnarzt
   - ⇒ Zahnarzt
   - ⇒ Zahnmedizinische Fachangestellte
   - ⇒ Medizinische Fachangestellte
   - ⇒ Zahntechniker
   - ⇒ KFO-Techniker
4. Position im Unternehmen
   - ⇒ Eigentümer
   - ⇒ Geschäftsführer
   - ⇒ Medizinischer Leiter
   - ⇒ Andere
5. Größe der Praxis
   - ⇒ Anzahl Mitarbeiter
   - ⇒ Ungefährer Umsatz
6. Jetzige Praxis war
   - ⇒ Übernahme oder Neugründung?
7. Eröffnungsjahr / Übernahmejahr
   - ⇒ Veränderungen über die Jahre
   - ⇒ Welche?
8. Erfahrung?
   - ⇒ Wie viele andere Praxen

[353] *Gesundheitsberichterstattung des Bundes*, 2019

⇒ Andere Neugründungen

⇒ Andere Übernahmen

9. Herausforderungen beim Öffnen / der Übernahme einer / Ihrer Praxis
10. Administrative Tätigkeiten im Praxisalltag
11. Betriebswirtschaftliche Herausforderungen im Praxisalltag
    a. Typ
    b. Vorbereitung im Studium
    c. Wie sie sich vorbereitet haben
    d. Wege der Vorbereitung am Markt
12. Veränderungen im Betreiben der Praxis über Zeit
13. Bekannte Wissenslücken (sowie nicht vorher abgedeckt)

⇒ Planning, strategies and goals

i. Planen Sie Ziele und Umsätze
   1. Basis der Planung
   2.

ii. Warum (nicht)?

iii. Messen Sie sich und Ihr Team an der Erreichung der Ziele

⇒ Good health care

i. Messung der Qualität der medizinischen Leistung?

ii. Likes Jameda Facebook etc

iii. Unterstützung diese zu bewerten?

⇒ HR skills, management and leadership

i. Führungsstil?

ii. Coaching culture?

iii. Delegation?

iv. Staff involvement in decisions?

⇒ Continuous staff training

i. Other than medical?

⇒ Patient orientation and marketing

i. Patiententreatment ?

ii. Was tun sie für Ihre Patienten?

iii. Corporate Identity

⇒ Cooperation models

i. Wie kooperieren Sie

ii. Praxisnetz anerkannt?

⇒ Entrepreneurial skills

i. Welche unternehmerischen Konzepte setzen Sie um?

- ⇒ Clinic Organization and Controlling

14. Betreiben Sie Controlling?
    - ⇒ 1. Cost-Controlling
    - ⇒ 2. Investment-Controlling
    - ⇒ 3. Solvency-Controlling
    - ⇒ 4. Organisation-Controlling
    - ⇒ 5. Medical-Controlling
    - ⇒ 6. Personnel-Controlling
    - ⇒ 7. Marketing-Controlling
    - ⇒ 8. Care-Controlling
    - ⇒ 9. Logistics-Controlling
15. Verwaltungsmitarbeiter?
16. Organisation Bestellung?
    - ⇒ Optimierung angeschaut?
17. Ausarbeitung Marketing? Mitarbeiter?
18. Strukturiertes Rekruiting?
    - ⇒ Bewerberdatenbank?
19. Welche Zentralisierbare Prozesse gibt es
    - ⇒ Sinnvolle Umstände (sowie nicht vorher abgedeckt)
20. Datenschutz?
    - ⇒ Wer ist verantwortlich?
21. Alternativen zur eigenen Praxis
    - a. Welche bekannt
    - b. Wie wahrgenommen
    - ⇒ Option für Sie?
22. Europäischer Vergleich (sofern bekannt)
    - ⇒ Was wissen Sie über Ihren Job im Ausland?
    - ⇒ Ungarn

Appendix P: Interview Structure translated in English (Germany and Hungary)

p. 63

23. Gender
24. Under 40, 40-50, over 50
25. Occupation/Qualification
    - ⇒ Dental Specialist
    - ⇒ Dentist
    - ⇒ Dental assistant
    - ⇒ Medical assistant
    - ⇒ Dental technician
    - ⇒ Orthodontic technician
26. Position in the company
    - ⇒ Owner
    - ⇒ Executive Director
    - ⇒ Medical Director
    - ⇒ Other
27. Size of the practice
    - ⇒ Number of employees
    - ⇒ Approximate turnover
28. Current Practice was
    - ⇒ Takeover or start-up?
29. Opening year / Year of acquisition
    - ⇒ Changes over the years
    - ⇒ Wich ?
30. Experience ?
    - ⇒ How many other practices
    - ⇒ Other start-ups
    - ⇒ Other take overs
31. Challenges in opening /taking over a/your practice
32. Administrative task in everyday practice
33. Business challenges in everday practice
    a. Type
    b. Preparation in the study
    c. How did you prepare yourselves
    d. Ways of preparing for the market
34. Changes in operation practice over time
35. Known knowledge gaps (and not previously covered)
    - ⇒ Planning, strategies and goals
        i. Do you plan goals and revenue ?
            1. Basis of planning
            2.
        ii. Why (not)?
        iii. Do you measure yourself and your team to achieve the goals ?
    - ⇒ Good health care
        i. Measuring the quality of medical services?

   ii. Likes Jameda Facebook etc
   iii. Evaluation of this support?

⇒ HR skills, management and leadership
   i. Management style?
   ii. Coaching culture?
   iii. Delegation?
   iv. Staff involvement in decisions?

⇒ Continuous staff training
   i. Other than medical?

⇒ Patient orientation and marketing
   i. Patient treatment?
   ii. What do you do for your patients ?
   iii. Corporate Identity

⇒ Cooperation models
   i. How do you cooperate ?
   ii. Practice network recognized ?

⇒ Entrepreneurial skills
   i. Which entrepreneurial concepts do you implement?

⇒ Clinic Organisation and Controlling

36. Do you operate controlling?
   ⇒ 1. Cost-Controlling
   ⇒ 2. Investment-Controlling
   ⇒ 3. Solvency-Controlling
   ⇒ 4. Organisation-Controlling
   ⇒ 5. Medical-Controlling
   ⇒ 6. Personnel-Controlling
   ⇒ 7. Marketing-Controlling
   ⇒ 8. Care-Controlling
   ⇒ 9. Logistics-Controlling
37. Administrative assistant?
38. Organisation of orders?
   ⇒ Optimisation looked at?
39. Elaboration Marketing? Employee?
40. Structured recruiting?
   ⇒ Applicant database?
41. Which centralisable processes are there ?
   ⇒ Meaningful circumstances (and not previously covered)
42. Privacy policy?
   ⇒ Who is responsible?
43. Alternatives to own practice
   a. Which known
   b. How perceived
   ⇒ Option for you?
44. European comparison (if known)
   ⇒ What do you know about your job abroad?
   ⇒ Hungary

Appendix Q: Quantitative Questionnaire in German (Germany only)

p. 64, 74, 74

Fragebogen

Sehr geehrte(r) Teilnehmer/in,

Vielen Dank, dass Sie sich entschieden haben diese Forschungsarbeit mit Ihrer Zeit zu unterstützen. Als Dankeschön erhalten Sie bis Jahresende eine digitale Zusammenfassung der Kernergebnisse der Arbeit, welche Ihnen als Rat für zukünftige Entscheidungen in Ihrer Praxis dienen kann. Bei Bedarf unterstütze ich Sie gerne bei der Umsetzung der Ergebnisse in Ihrer Praxis.

1. Geschlecht

Männlich Weiblich Divers

2. Altersgruppe

Unter 40 40-50 Über 50

3. Beruf / Qualifikation (bei Bedarf mehrere ankreuzen)

Zahnarzt Fachzahnarzt MKG
Fachzahnarzt KFO MSc____________

4. Erfahrung

In wie vielen Praxen haben Sie gearbeitet? ________
Seit wann sind Sie im Berufsleben (Jahr)? ________

Was hat sich seit Berufseinstieg verändert?

Keine wesentlichen Änderungen Mehr Konkurrenz
Mehr Bürokratie Sonstige: __________________

5. Jetzige Praxis

Art des Einstiegs

Übernahme Neugründung Einstieg /Teilhabe

Organisationsform

Einzelpraxis Gemeinschaftspraxis / Berufsausübungsgemeinschaft Medizinisches Versorgungszentrum

Rechtsform

GbR GmbH Sonstige:__________

Anzahl Mitarbeiter (alle operativen Kräfte inkl. Eigentümer)

Bis 3 4 bis 6 6 bis 10 Bis 15 Über 15

Umsatz

Bis 300k Bis 600k Bis 900k Bis 1,2 Mio. Über 1.2 Mio.

6. Weitere Standorte:
Neugründungen:_____ Übernahmen:_____ keine

7. Wie viel % Ihrer Zeit verbringen Sie mit administrativen Tätigkeiten im Praxisalltag
Unter 20% 20-30% 30-50% 50-70% Über 70%

8. Wie viel % der insgesamt durchzuführenden Aufgaben kaufen Sie bei Dienstleistern ein (z.B. Abrechnung, Steuerberatung, Zeitarbeit, …)?
Unter 20% 20-30% 30-50% 50-70% Über 70%

9. Größte Herausforderungen beim Öffnen / der Übernahme / dem Einstieg in eine(r) / Ihre(r) Praxis
Mitarbeiterführung
Übernahme / Schaffung des Patientenstamms
Organisation des Praxisalltags
Sonstige:

10. Planen Sie Ziele und Umsätze?

Ja, Gesamtumsatz	Ja, auf Mitarbeiterbasis	Nein
i.Wie planen Sie Ziele? ____ ii.Messen Sie sich und Ihr Team an der Erreichung der Ziele? Ja Ja mit Bonuszahlung für Mitarbeiter Nein		Weiter zu Frage 11.

11. Marketing
Einheitliche Gesamterscheinung?
Das ist uns nicht wichtig.
Wir benutzen ab und zu das Logo.
Es gibt ein, zwei Farben die sich wiederholen und das Logo wird auf einigen Dingen verwendet.
Es gibt ein klares Farbkonzept, wir haben einheitliche Kleidung und verwenden immer das Logo.
Komplette Corporate Identity! Alles was unser Haus verlässt hat eine einheitliche Linie. Von der Webseite über die Praxisausstattung bis zum Werbegeschenk passt alles perfekt zusammen.
Organisation des Marketings
Ich / Wir (Eigentümer-Geschäftsführer) entscheiden ab und an was
Mitarbeiter machen Vorschläge und es wird gemeinsam entschieden

Es gibt ein Budget und eine verantwortliche Mitarbeiter(in)

Nutzen Sie aktiv digitale Empfehlungsplattformen?

Webseite Facebook Jameda Andere:________ keine

12. Wie gewinnen Sie neue Mitarbeiter?

Zeitung Facebook Empfehlung(en) Personaldienstleister
Webseite Onlineportale Eigene Bewerberdatenbank Sonstige:__________

13. Bilden Sie Ihre Mitarbeiter stets weiter (bei Bedarf mehrere ankreuzen?

Fachliche Kompetenzen
Zwischenmenschliche Kompetenzen (z.B. Umgang mit Kindern / Mitarbeitern
Betriebswirtschaftliche Kompetenzen (z.B. Vertrieb)
Andere: ________________
Nein

14. Wer trifft bei Ihnen die wichtigen nicht medizinischen Entscheidungen in der Praxis?

Sie, beziehungsweise einer der Eigentürmer
Immer alle Eigentümer zusammen
Leitende Mitarbeiter
Jeder eigenständig in seinem definierten Verantwortungsbereich

15. Werden Materialbestellung regelmäßig optimiert?

Ja, Preisvergleich Ja, Materialwechsel Weiß nicht genau Nein

16. Wie wichtig sind Ihnen diese Aufgaben?

	Sehr wichtig 1	2	3	4	5	Unwichtig 6
Planung, Strategien und Ziele						
Qualität der med. Versorgung						
Organisation und Controlling-Prozesse						
Management und Personalführung						
Kontinuierlicher Personalweiterbildung						
Patientenorientierung und Marketing						
Kooperationsmodelle						
Unternehmerische Fähigkeiten						

17. Einführung der Datenschutzgrundverordnung

Wer ist verantwortlich?

Interne(r) Mitarbeiter(in) Extern

Was hat sich geändert?

Bauliche Veränderung EDV (z.B. Versand Röntgenbilder) Sonstige:__________________
____

18. Hat Dentaltourismus eine Auswirkung für Sie?

Ja, unsere Patienten wandern (ins Ausland) ab. Länder: __________________

_______________% unseres Patientenstamms sind über 5 Jahre abgewandert

Für welche Behandlungen:____

Ja, wir bekommen viele ausländische Patienten. Länder:__________________

_______________% unserer Patienten sind Touristen

Für welche Behandlungen:____

Nein

Danke für Ihre Teilnahme!
Mit freundlichen Grüßen,
Jean-Pierre Himpler

Appendix R: Quantitative Questionnaire translated in English (Germany only)

p. 64, 74, 74

Dear Participant

Thank you for choosing to support this research with your time. As a thank you get to the end of a digital summary of the main results of the work, which can serve as advice for future decisions in your practice. If required, I will gladly assist you in implementing the results in your practice

1. Gender

☐ Male ☐ Female ☐ Divers

2. Age

☐ Under 40 ☐ 40-50 ☐ Over 50

3. Occupation / Qualification (tick several if required)

☐ Dentist
☐ Specialist dentist orthodontics ☐ Specialist in Oral and Maxillofacial Surgery
☐ MSc_____________

4. Experience

☐ In how many practices did you work ? _________
☐ Since when are you in professional life (year) ? _________

5. What has changed since the beginning of your career?

☐ No significant changes
☐ More bureaucracy ☐ More competition
☐ Other: __________________

5. Current Practice

Type of entry
☐ Takeover ☐ Founding ☐ Entry/participation
Organization
☐ Individual practice ☐ Group practice / Professional association ☐ Medical Care Center
Legam form
☐ GbR ☐ GmbH ☐ Other:___________
Number of employees (all operational staff incl. Owner)
☐ to 3 ☐ 4 to 6 ☐ 6 to 10 ☐ to 15 ☐ more than 15
Revenue
☐ to 300k ☐ to 600k ☐ to 900k ☐ to 1,2 Mio. ☐ more than 1.2 Mio. ☐ No information

6. More locations :

☐ Founding :_____ ☐ Takeover :_____ ☐ none

7. What% of your time you spend with administrative tasks in everyday practice
☐ Less than 20% ☐ 20-30% ☐ 30-50% ☐ 50-70% ☐ More than 70%

8. What % of the total number of tasks do you take on from service providers (for example, billing, tax advice, temporary work, ...)?
☐ less than 20% ☐ 20-30% ☐ 30-50% ☐ 50-70% ☐ more than 70%

9. Biggest challenges in opening / taking over / getting started in your / your practice (s)
☐ Staff management
☐ Acquisition / creation of the patient base
☐ Daily practice organisation
☐ Other :

10. Are you planning goals and revenue ?
☐ Yes, total revenue ☐ Yes, on an employee basis ☐ No

Go to question 11.
i. How do you plan goals?

____

ii. Do you measure yourself and your team to achieve the objectives?
☐ Yes ☐ Yes, with bonus for employees ☐ No

11. Marketing
Uniform overall appearance?
☐ That's not important to us.
☐ We use the logo from time to time.
☐ There are one or two colors that are repeated and the logo is used on some things.
☐ Es gibt ein klares Farbkonzept, wir haben einheitliche Kleidung und verwenden immer das Logo.
☐ Complete corporate identity! Everything that leaves our house has one. From the website over the practice equipment to the giveaway everything fits together perfectly.
Organisation of marketing.
☐ I / we (owner-manager) decide from time to time what
☐ Employees make suggestions and we decide together
☐ There is a budget and a responsible employee.
Do you actively use digital referral platforms?
☐ Website ☐ Facebook ☐ Jameda ☐ Other:________ ☐ None

12. How do you get new employees ?

☐ Newspaper
☐ Website ☐ Facebook
☐ Online portals ☐ Recommandation(s)
☐ Own applicant database ☐ Recruiter
☐ Other:__________

13. Do you continue to train your employees (if necessary, tick several?
☐ Professional skills
☐ Interpersonal skills (for example, dealing with children / employees
☐ Business skills (e.g., sales)
☐ Other: ________________
☐ No

14. Who makes the important non-medical decisions in practice?
☐ You, or one of the owners
☐ Always all owners together
☐ Senior staff
☐ Each independently in his defined area of responsibility

15. Are material orders regularly optimized?
☐ Yes, price comparison ☐ Yes, material change ☐ No ☐ Do not know

16. How important are these tasks to you?
Very important
Unimportant
1 2 3 4 5 6
Planning, strategies and objectives
Quality of the med. care
Organization and controlling processes
Management and staff management
Continuous staff training
Patient orientation and marketing
Cooperation models
Entrepreneurial skills

17. Introduction to the Privacy Regulation
Who is responsible?
☐ Internal staff ☐ External
What has changed ?
☐ Structural changes ☐ EDP (for example, shipping X-ray images) ☐
Other:__________________
____

18. Has dental tourism an impact for you?
☐ Yes, our patients migrate abroad. Countries: _________________
______________% of our patient base have migrated over 5 years

For which treatments ____

☐ Yes, we get many foreign patients. countries:_________________

______________% our patients are tourists

For which

Treatments ____

☐ No

Thank you for your participation!

Yours sincerely,

Jean-Pierre Himpler

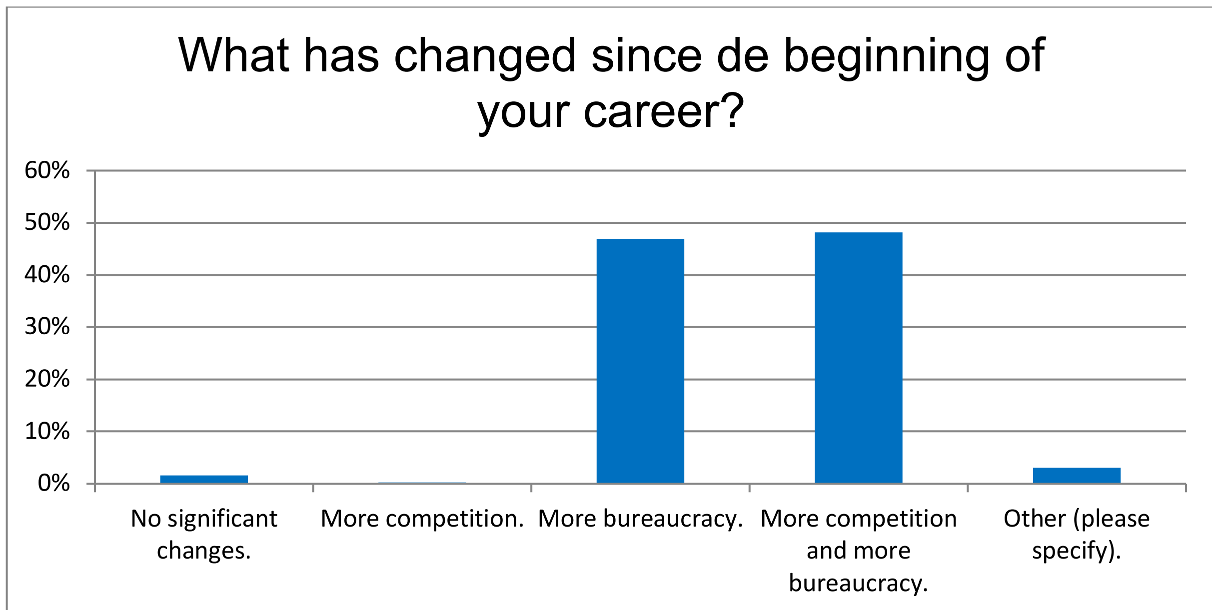
Appendix S: Interview answer statistics simplified (Germany)

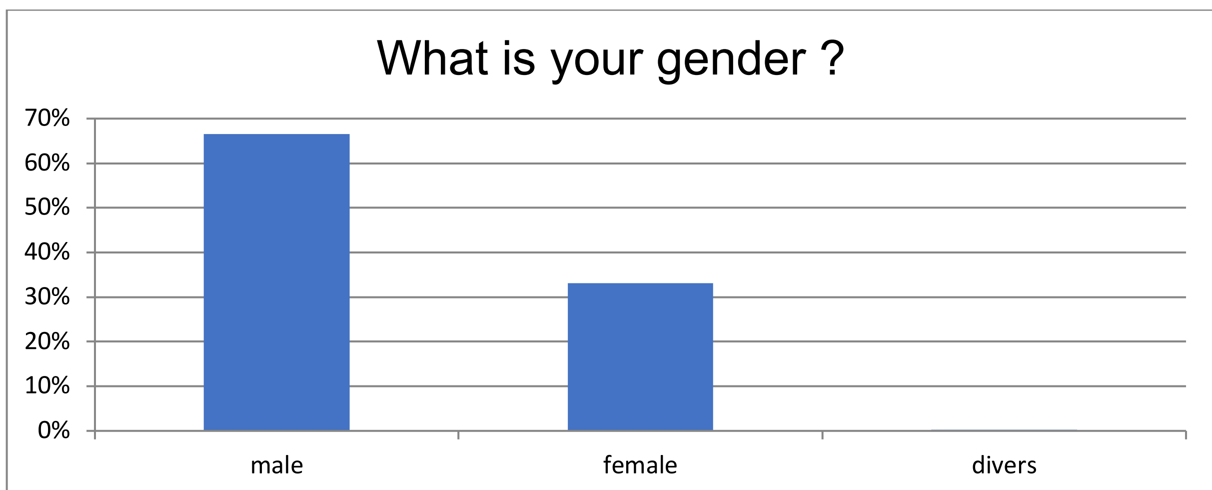
p. 73, 72

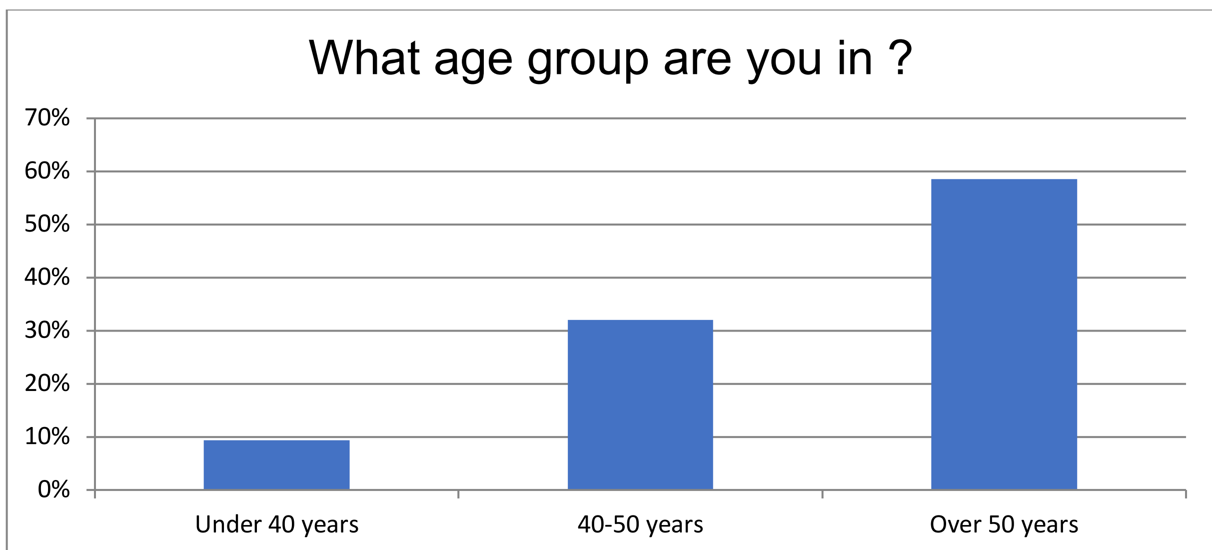
	Planning, Strategies and Goals	Good Health Care	Clinic Organisation & Controlling	HR skills, management and leadership	Continuous Staff Training	Patient Orientation	Marketing	Cooperation Models	Entrepreneurial Skils
US1	1	5	3	5	4	4	2	1	2
US2	2	4	2	5	3	5	1	1	3
US3	1	5	4	4	5	5	2	1	3
US4	1	5	3	4	4	4	2	1	2
US5	1	5	5	5	5	4	4	1	1
US6	1	5	4	2	3	4	1	1	2
US7	3	5	5	4	5	4	5	2	2
UB1	4	5	4	4	5	5	2	1	4
UB2	2	5	4	4	5	3	4	1	5
UB3	5	4	5	5	4	4	2	1	4
UB4	4	5	4	4	5	4	2	1	4
UB5	2	5	5	4	4	4	1	1	6
RS1	2	5	5	5	3	5	1	1	3
RS2	1	4	2	4	4	3	2	1	2
RS3	1	5	2	4	5	3	1	1	5
RS4	2	5	5	5	4	4	2	1	4
RS5	1	5	4	4	4	4	1	1	3
RS6	1	5	5	4	4	4	2	1	4
RB1	1	5	4	4	5	5	2	1	4
RB2	1	5	3	4	2	4	3	1	5
RB3	2	5	5	5	4	4	2	1	4
RB4	5	4	5	4	4	5	5	1	6
RB5	2	5	3	4	5	3	2	1	4
RB6	1	4	4	4	5	3	4	1	3
RB7	3	5	4	5	4	4	3	1	4
RB8	4	5	5	4	5	5	2	1	5
RB9	1	5	5	5	5	5	1	1	5

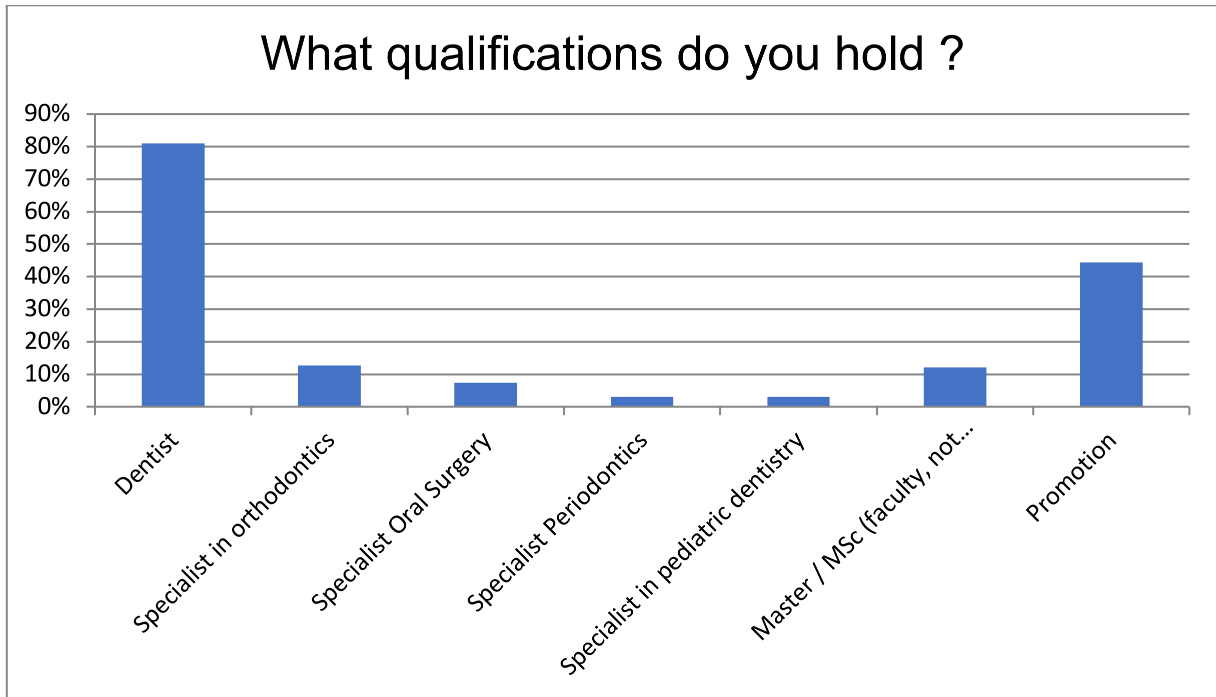
Appendix T: Questionnaire answer statistics simple (Germany)

p. 79

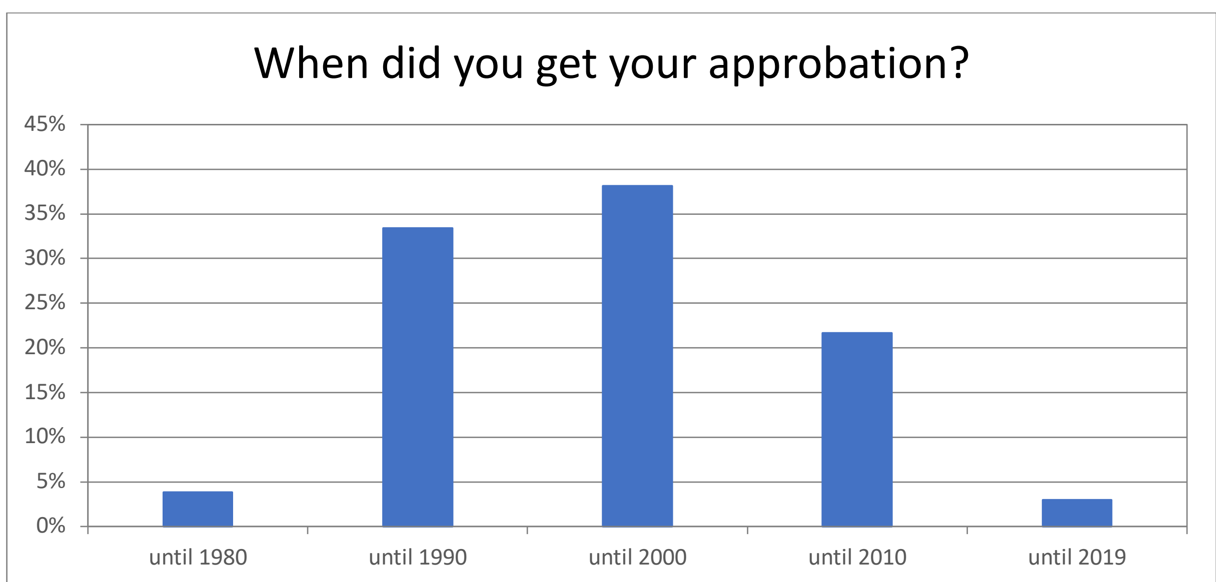


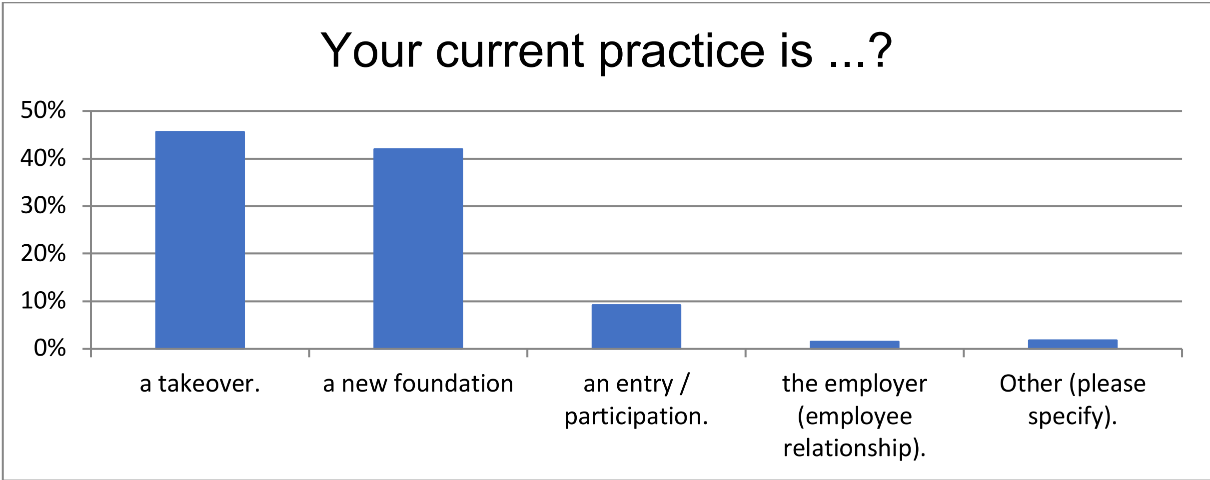




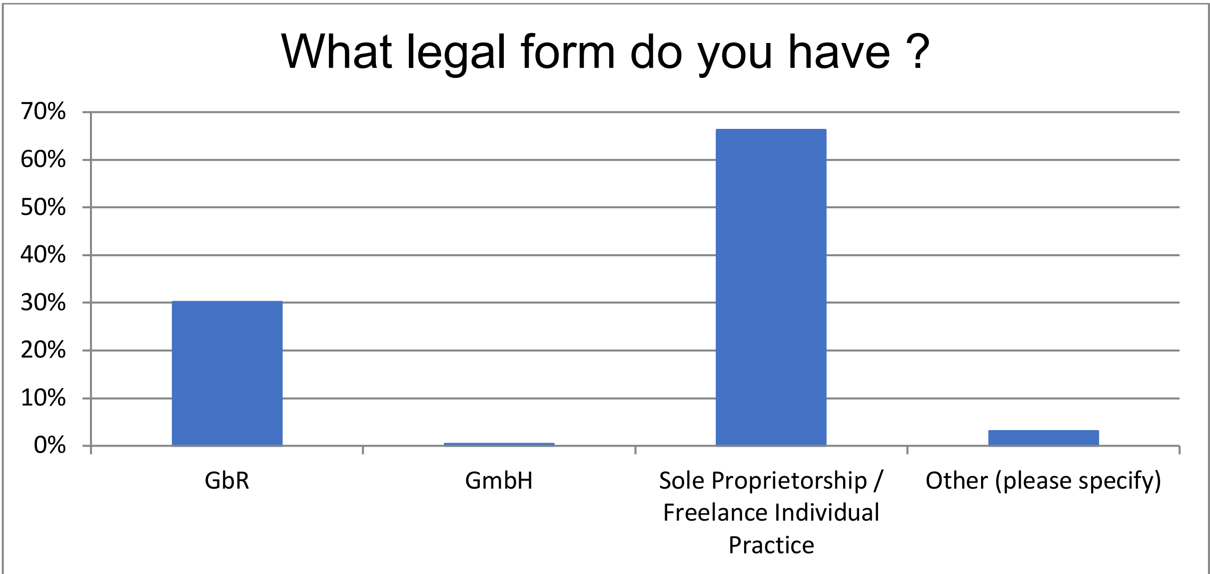

What qualifications do you hold ?
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Dentist
Specialist in orthodontics
Specialist Oral Surgery
Specialist Periodontics
Specialist in pediatric dentistry
Master / MSc (faculty, not...
Promotion

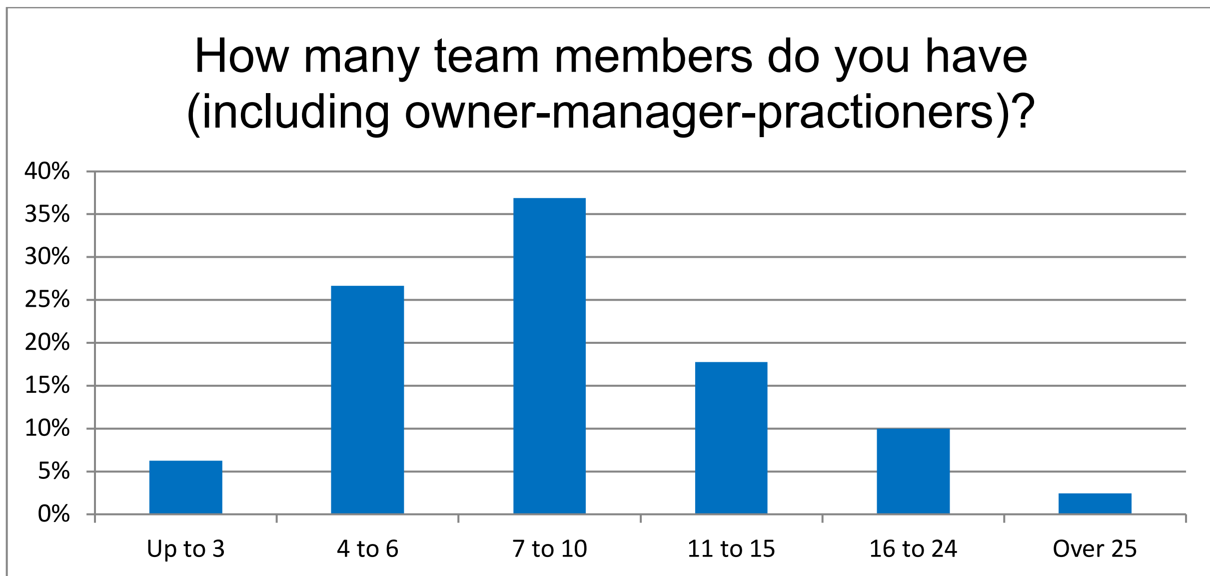
How many practices apart from your own did you work in ?
40%
30%
20%
10%
0%
Experience in
1
2
3
4
5
6+

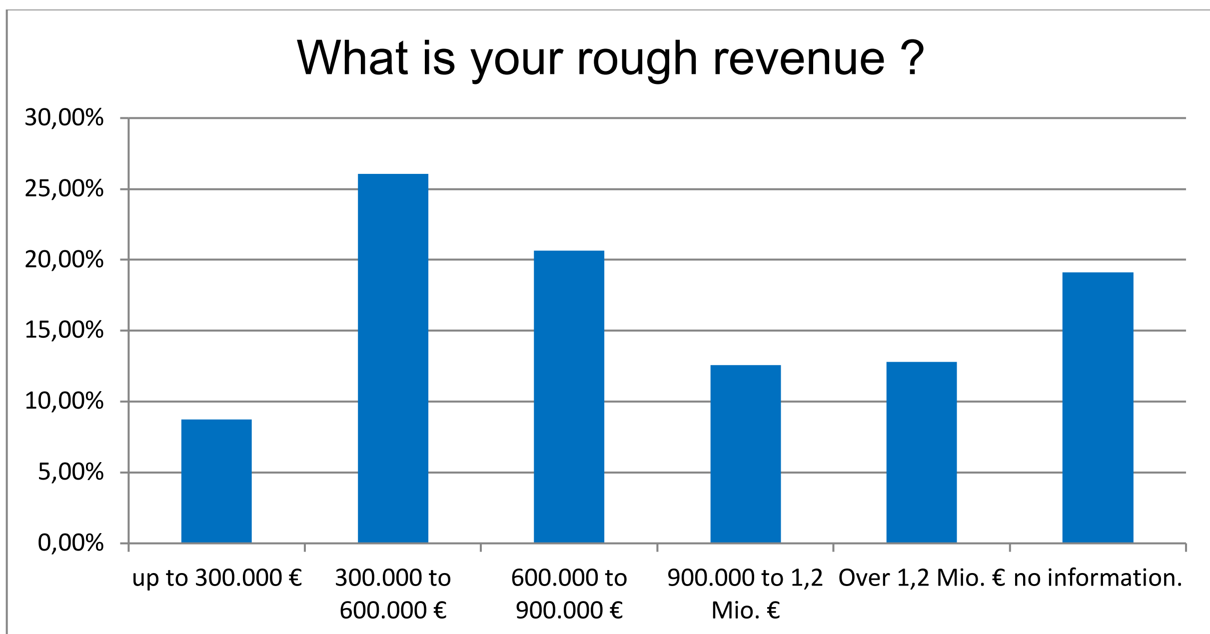

When did you get your approbation?
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
until 1980
until 1990
until 2000
until 2010
until 2019


Your current practice is ...?
50%
40%
30%
20%
10%
0%
a takeover.
a new foundation
an entry / participation.
the employer (employee relationship).
Other (please specify).

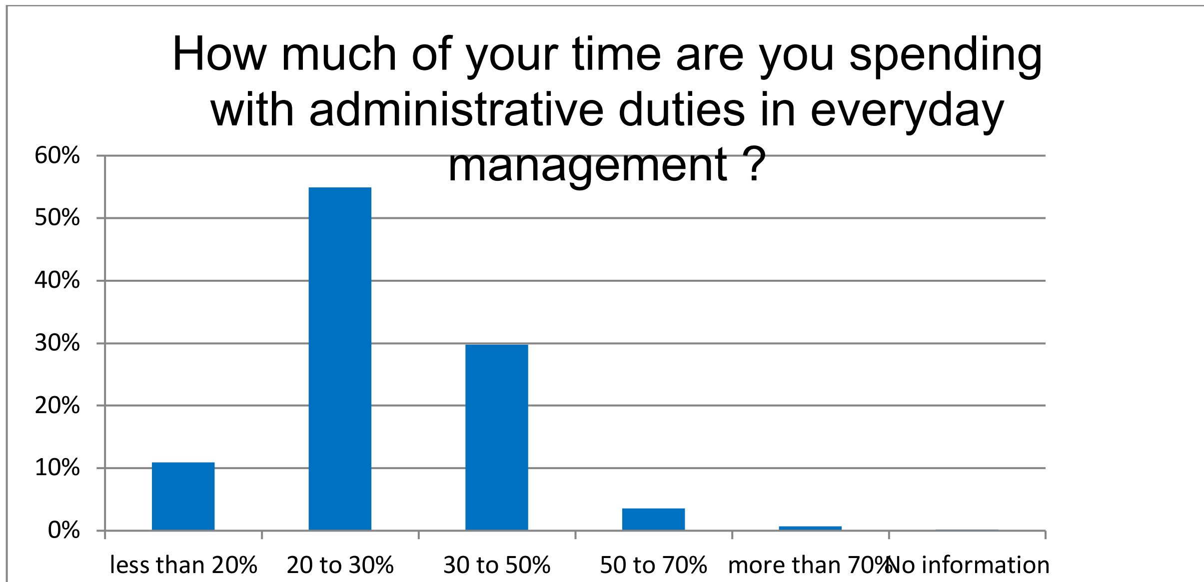
How is your company organised ?
70%
60%
50%
40%
30%
20%
10%
0%
Individual practice
Group practice / professional association
Health Care Centre
Other (please specify)

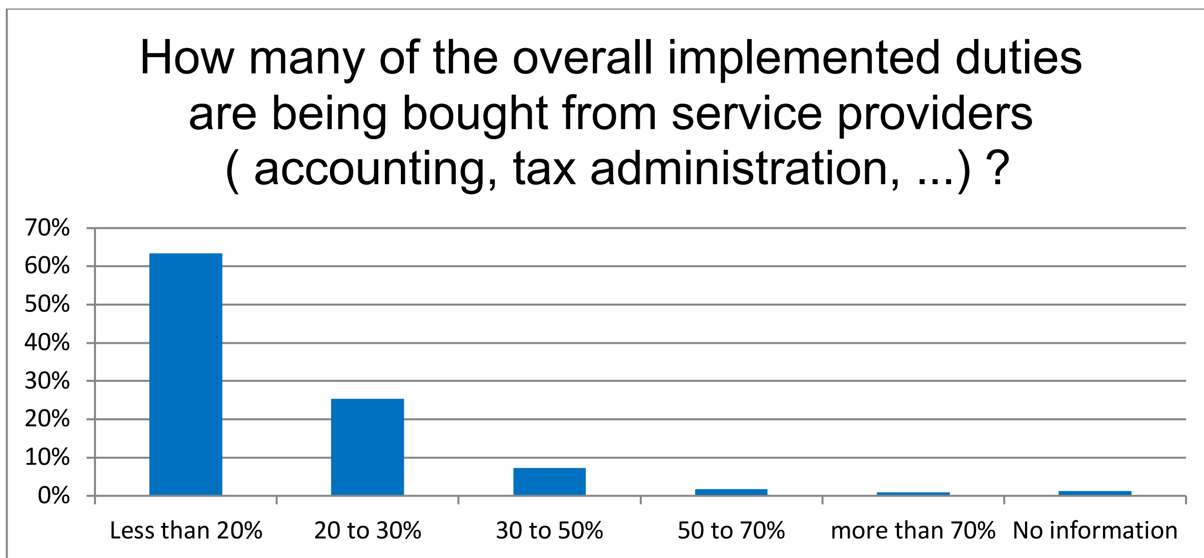

What legal form do you have ?
70%
60%
50%
40%
30%
20%
10%
0%
GbR
GmbH
Sole Proprietorship / Freelance Individual Practice
Other (please specify)

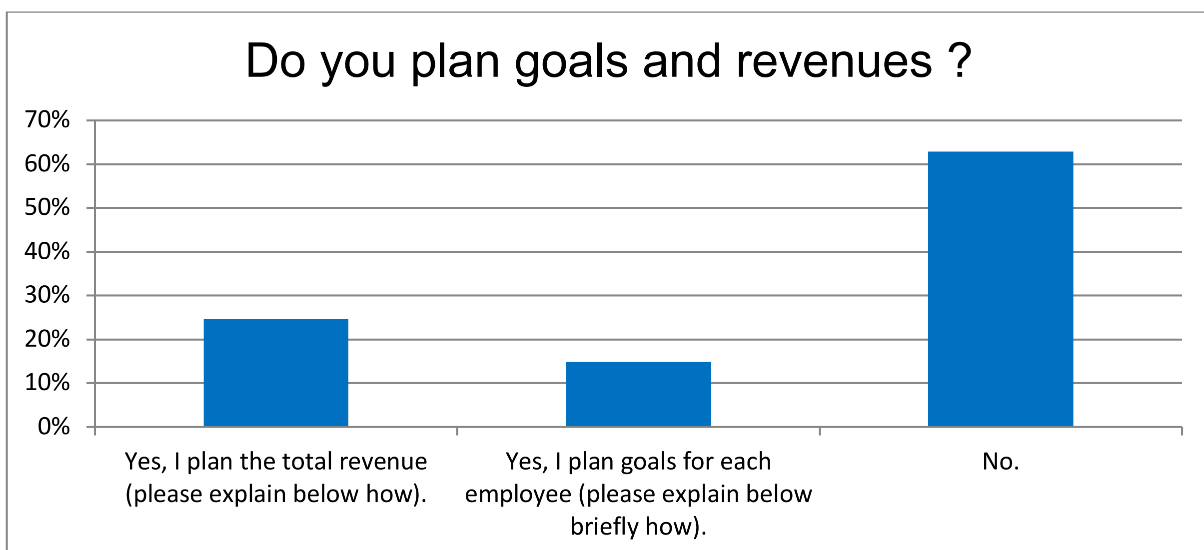

How many team members do you have (including owner-manager-practioners)?
40%
35%
30%
25%
20%
15%
10%
5%
0%
Up to 3
4 to 6
7 to 10
11 to 15
16 to 24
Over 25

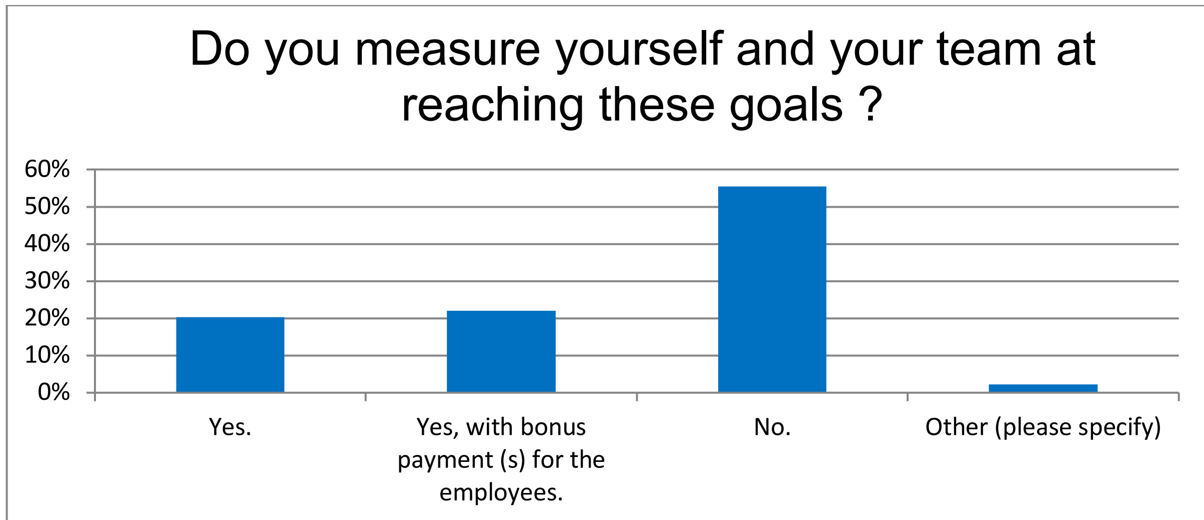

What is your rough revenue ?
30,00%
25,00%
20,00%
15,00%
10,00%
5,00%
0,00%
up to 300.000 €
300.000 to 600.000 €
600.000 to 900.000 €
900.000 to 1,2 Mio. €
Over 1,2 Mio. €
no information.

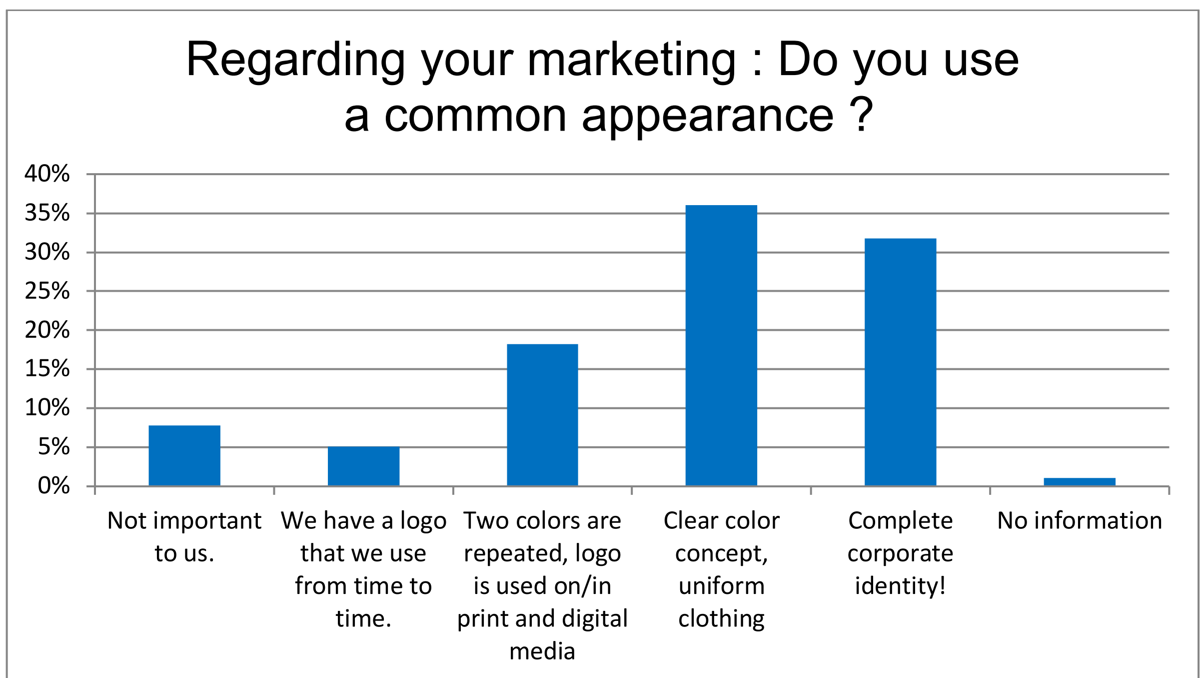
What were the biggest challenges when opening/ taking-over/ becoming part of the practice you currently have ?
60%
50%
40%
30%
20%
10%
Personnel management.
Acquisition / creation of a patient base.
Organization of everyday practice.
Other (please specify)


How much of your time are you spending with administrative duties in everyday management ?
60%
50%
40%
30%
20%
10%
0%
less than 20%
20 to 30%
30 to 50%
50 to 70%
more than 70%
No information

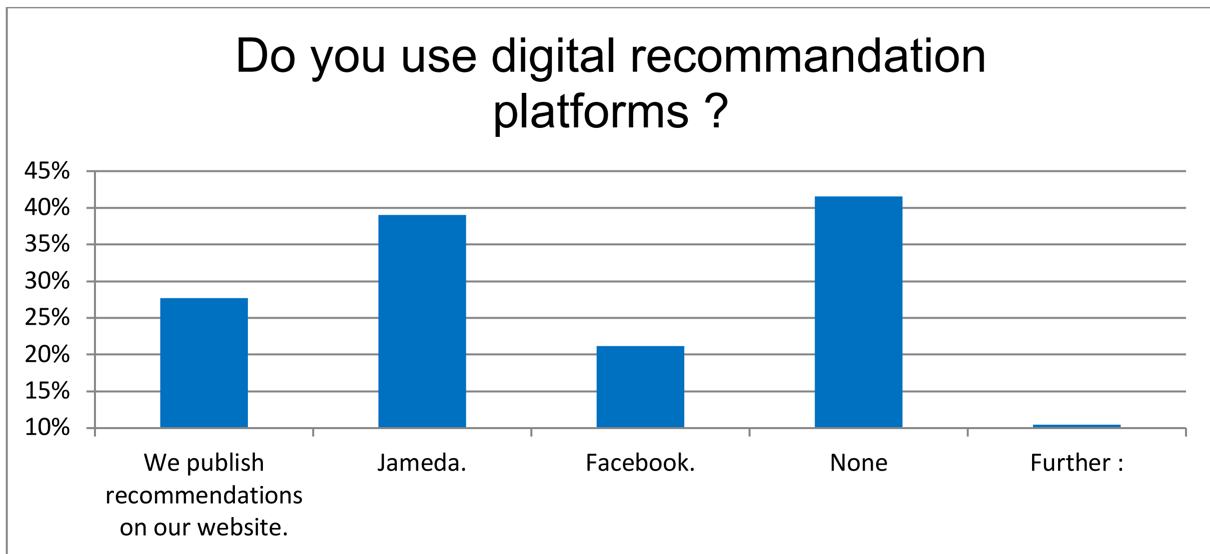

How many of the overall implemented duties are being bought from service providers (accounting, tax administration, ...) ?
70%
60%
50%
40%
30%
20%
10%
0%
Less than 20%
20 to 30%
30 to 50%
50 to 70%
more than 70%
No information

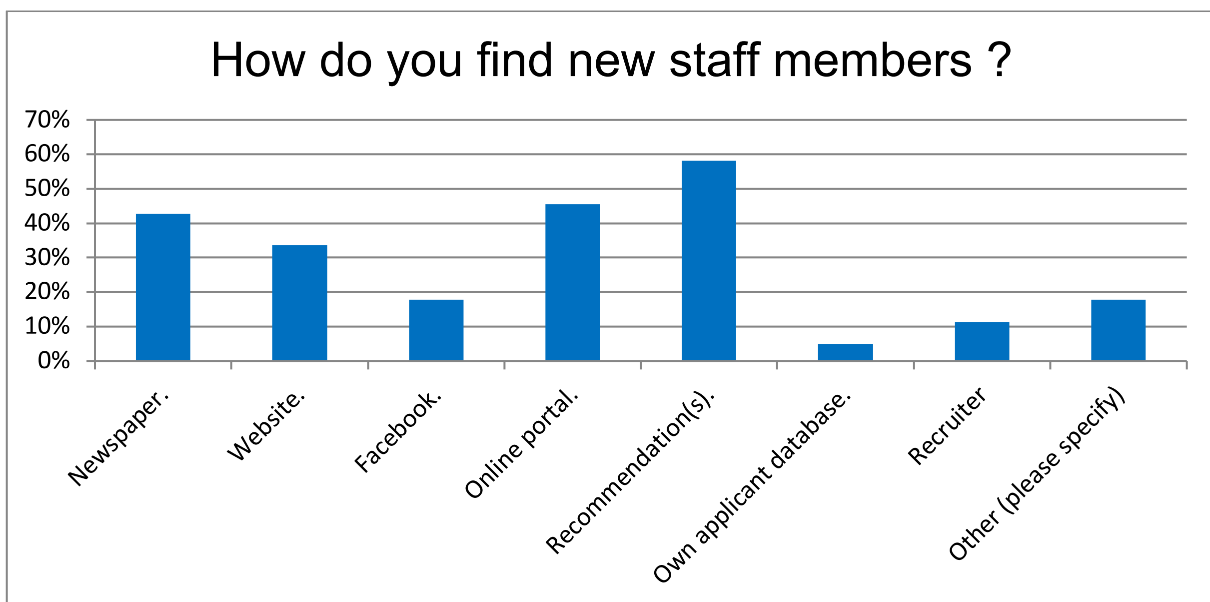

Do you plan goals and revenues ?
70%
60%
50%
40%
30%
20%
10%
0%
Yes, I plan the total revenue (please explain below how).
Yes, I plan goals for each employee (please explain below briefly how).
No.

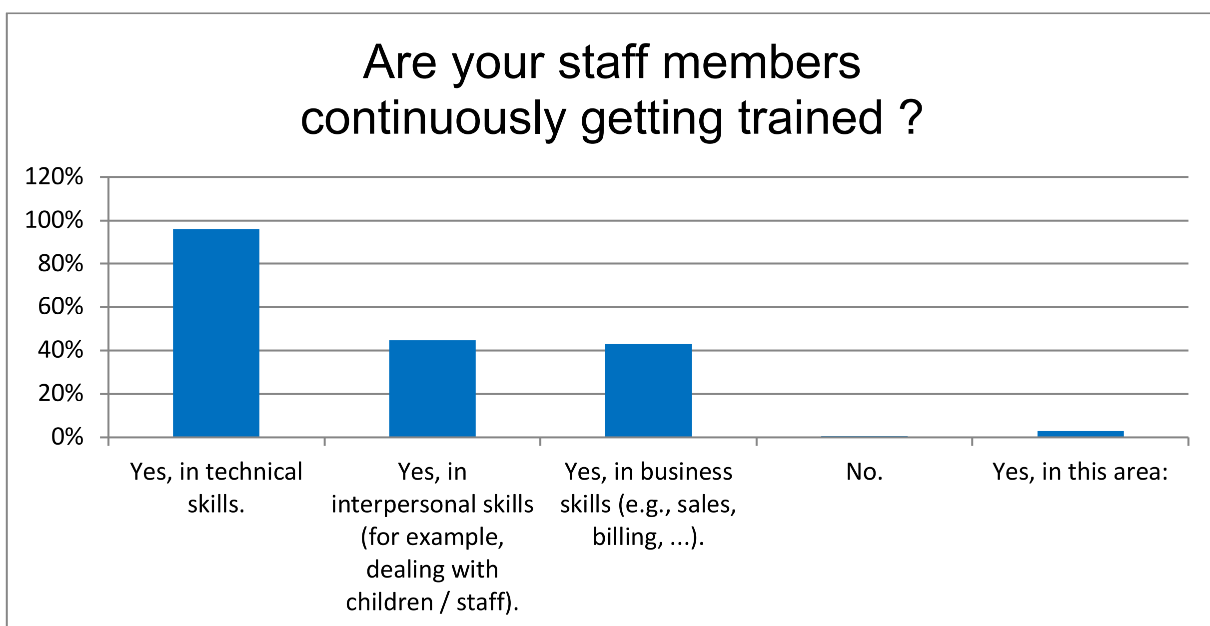

Do you measure yourself and your team at reaching these goals ?
60%
50%
40%
30%
20%
10%
0%
Yes.
Yes, with bonus payment (s) for the employees.
No.
Other (please specify)

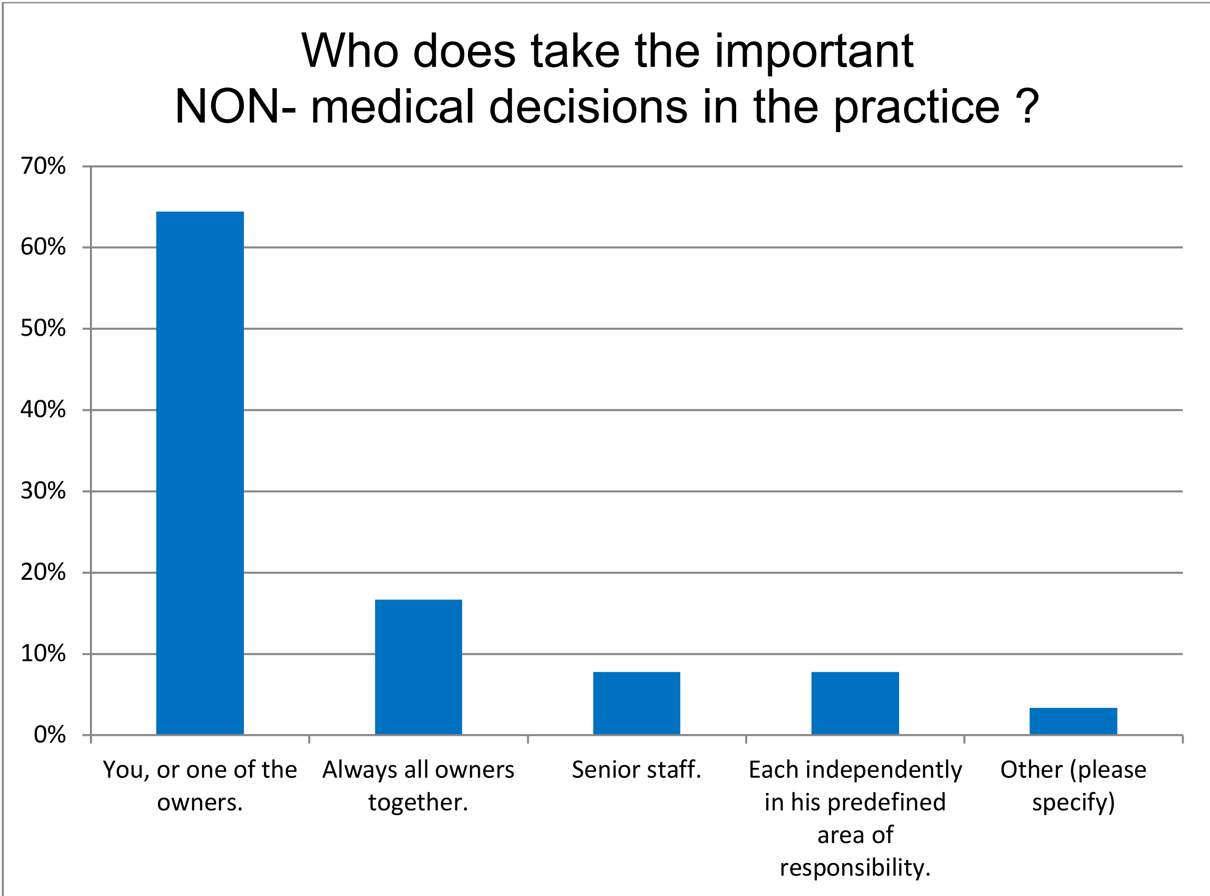

Regarding your marketing : Do you use a common appearance ?
40%
35%
30%
25%
20%
15%
10%
5%
0%
Not important to us.
We have a logo that we use from time to time.
Two colors are repeated, logo is used on/in print and digital media
Clear color concept, uniform clothing
Complete corporate identity!
No information

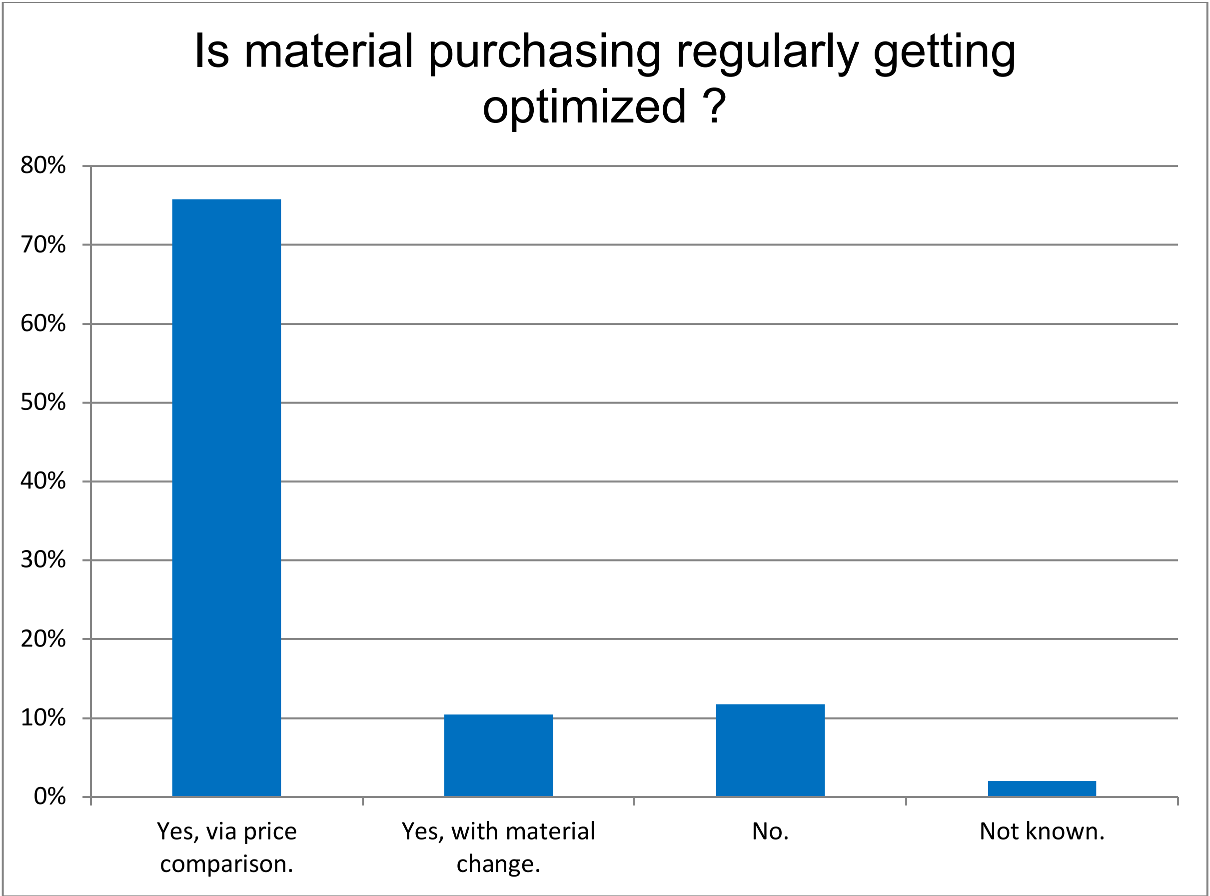
How is your marketing organized ?
70%
60%
50%
40%
30%
20%
10%
0%
I / we (owner-manager) make the marketing decisions.
Employees make suggestions and decisions are taken jointly.
There is a budget and a responsible employee.
Other (please specify).

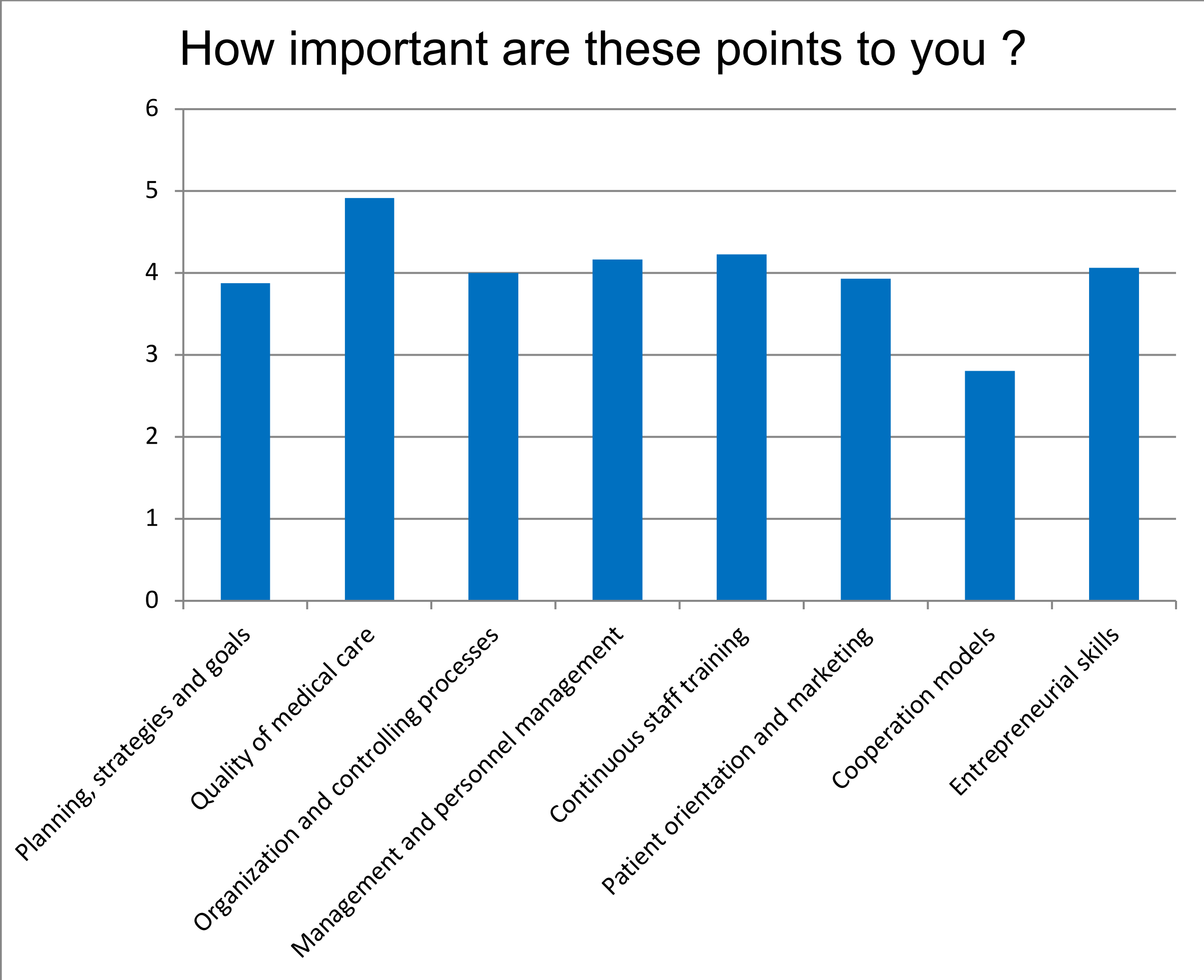

Do you use digital recommandation platforms ?
45%
40%
35%
30%
25%
20%
15%
10%
We publish recommendations on our website.
Jameda.
Facebook.
None
Further :

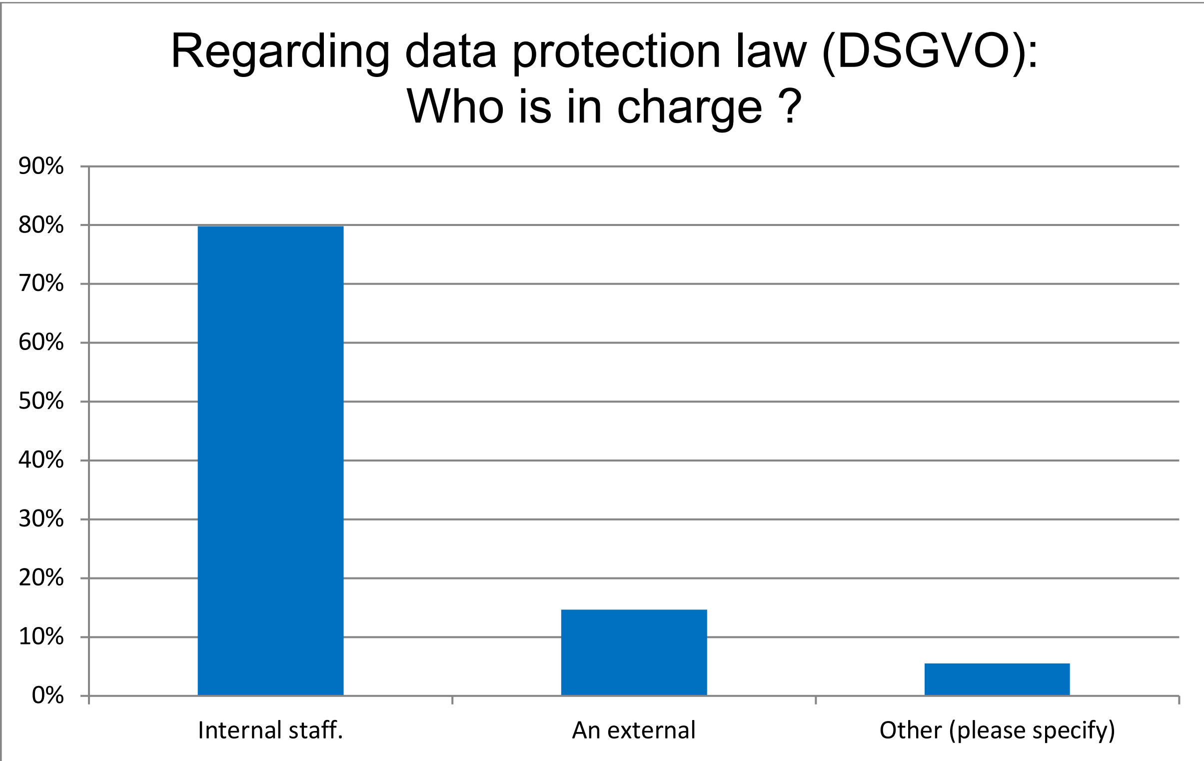

How do you find new staff members ?
70%
60%
50%
40%
30%
20%
10%
0%
Newspaper.
Website.
Facebook.
Online portal.
Recommendation(s).
Own applicant database.
Recruiter
Other (please specify)

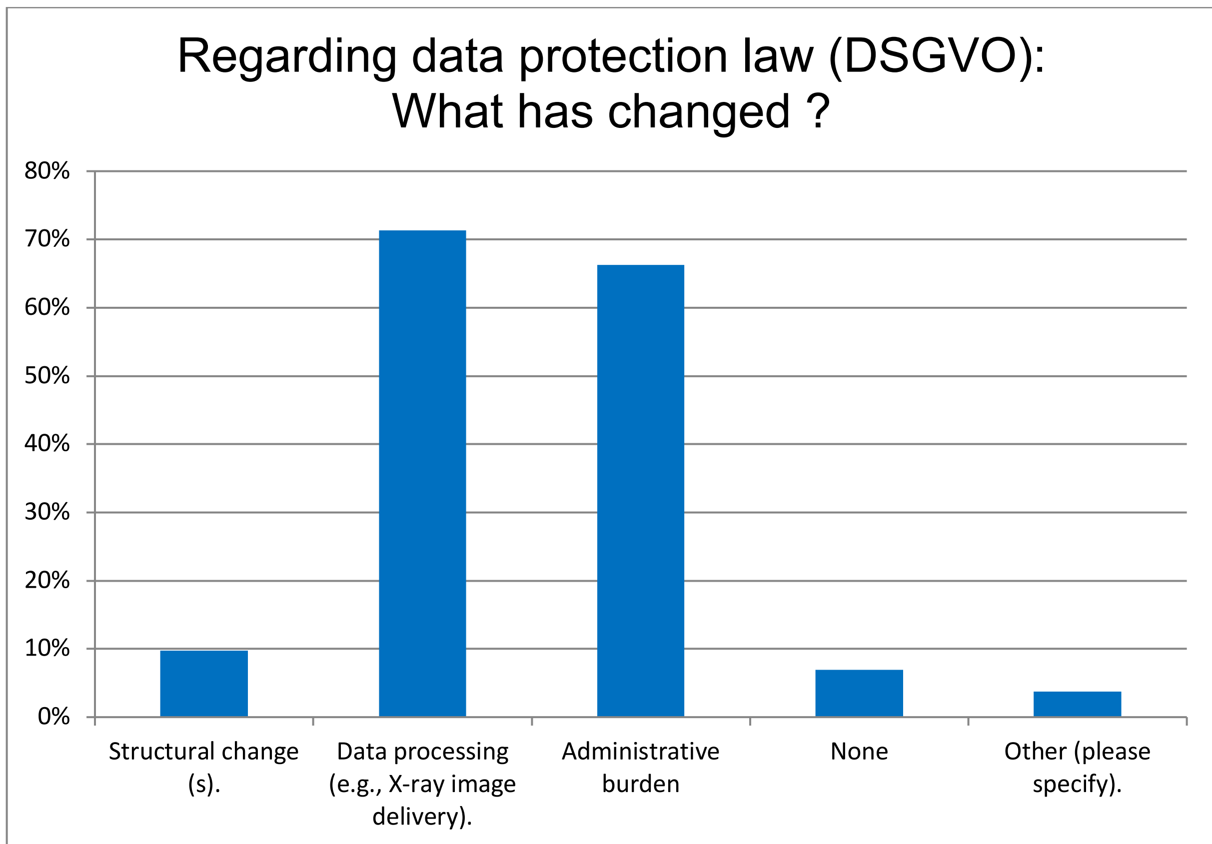

Are your staff members continuously getting trained ?
120%
100%
80%
60%
40%
20%
0%
Yes, in technical skills.
Yes, in interpersonal skills (for example, dealing with children / staff).
Yes, in business skills (e.g., sales, billing, ...).
No.
Yes, in this area:

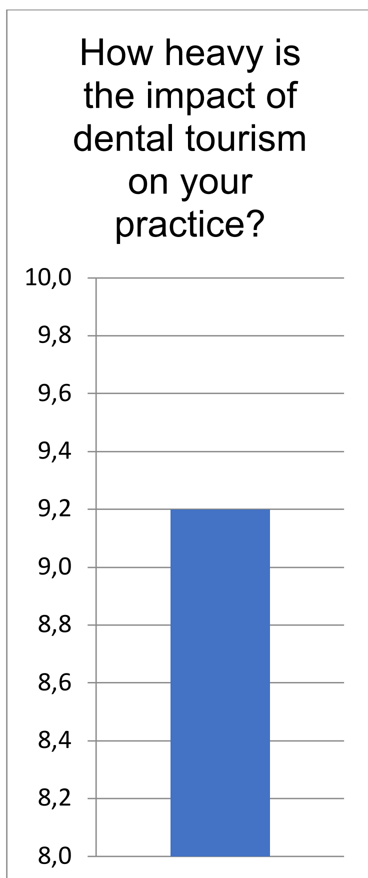

Who does take the important
NON- medical decisions in the practice ?
70%
60%
50%
40%
30%
20%
10%
0%
You, or one of the owners.
Always all owners together.
Senior staff.
Each independently in his predefined area of responsibility.
Other (please specify)

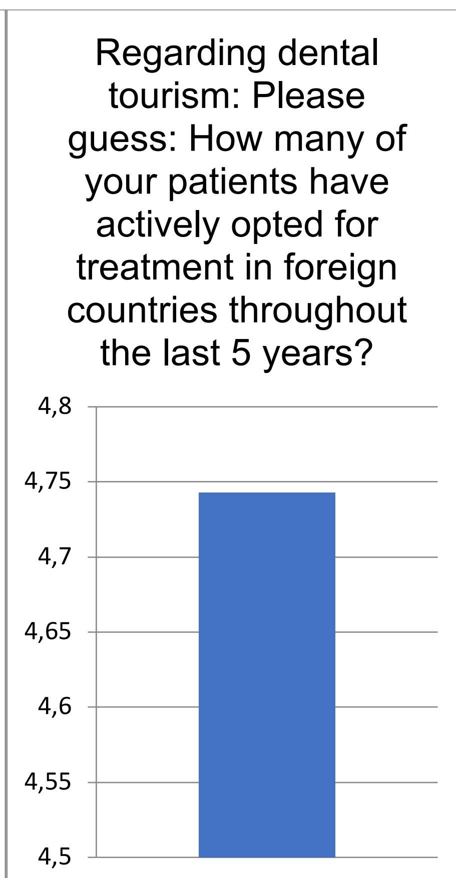

Is material purchasing regularly getting optimized ?
80%
70%
60%
50%
40%
30%
20%
10%
0%
Yes, via price comparison.
Yes, with material change.
No.
Not known.

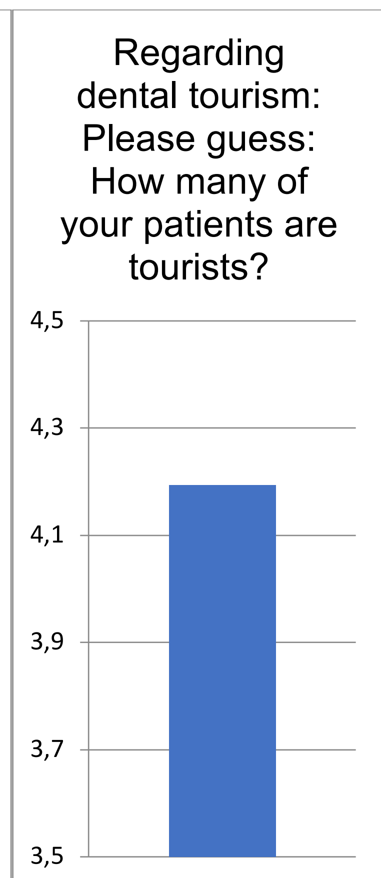

How important are these points to you ?
6
5
4
3
2
1
0
Planning, strategies and goals
Quality of medical care
Organization and controlling processes
Management and personnel management
Continuous staff training
Patient orientation and marketing
Cooperation models
Entrepreneurial skills


Regarding data protection law (DSGVO):
Who is in charge ?
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Internal staff.
An external
Other (please specify)


Regarding data protection law (DSGVO): What has changed ?
80%
70%
60%
50%
40%
30%
20%
10%
0%
Structural change (s).
Data processing (e.g., X-ray image delivery).
Administrative burden
None
Other (please specify).

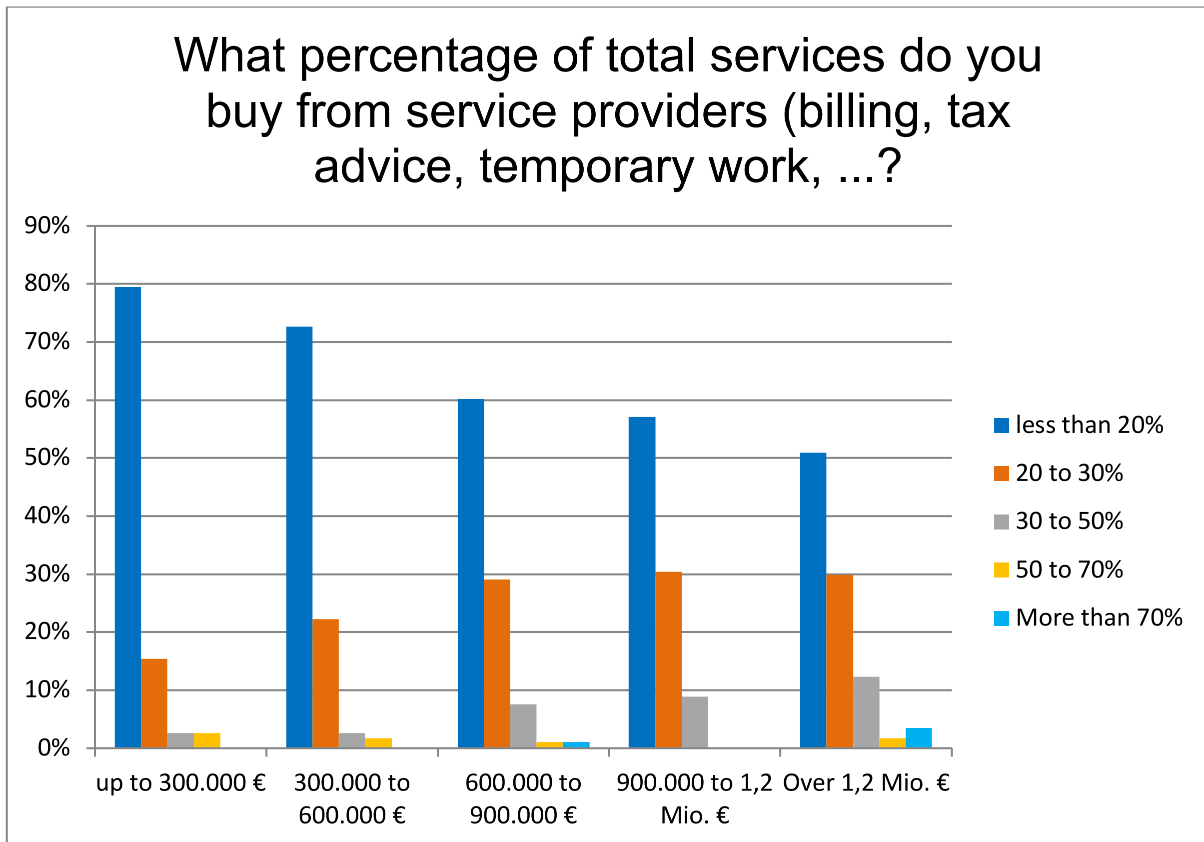

How heavy is the impact of dental tourism on your practice?
10,0
9,8
9,6
9,4
9,2
9,0
8,8
8,6
8,4
8,2
8,0


Regarding dental tourism: Please guess: How many of your patients have actively opted for treatment in foreign countries throughout the last 5 years?
4,8
4,75
4,7
4,65
4,6
4,55
4,5


Regarding dental tourism: Please guess: How many of your patients are tourists?
4,5
4,3
4,1
3,9
3,7
3,5

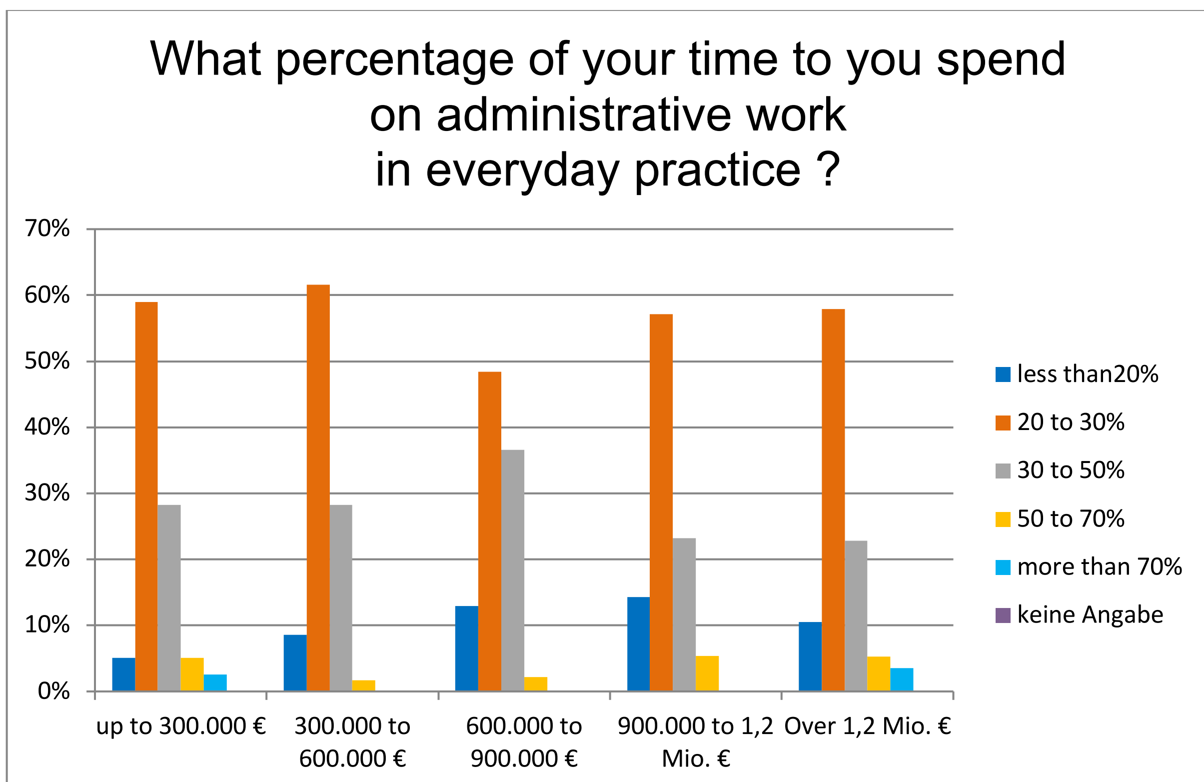
Appendix U: Revenue and Outsourcing

p. 82



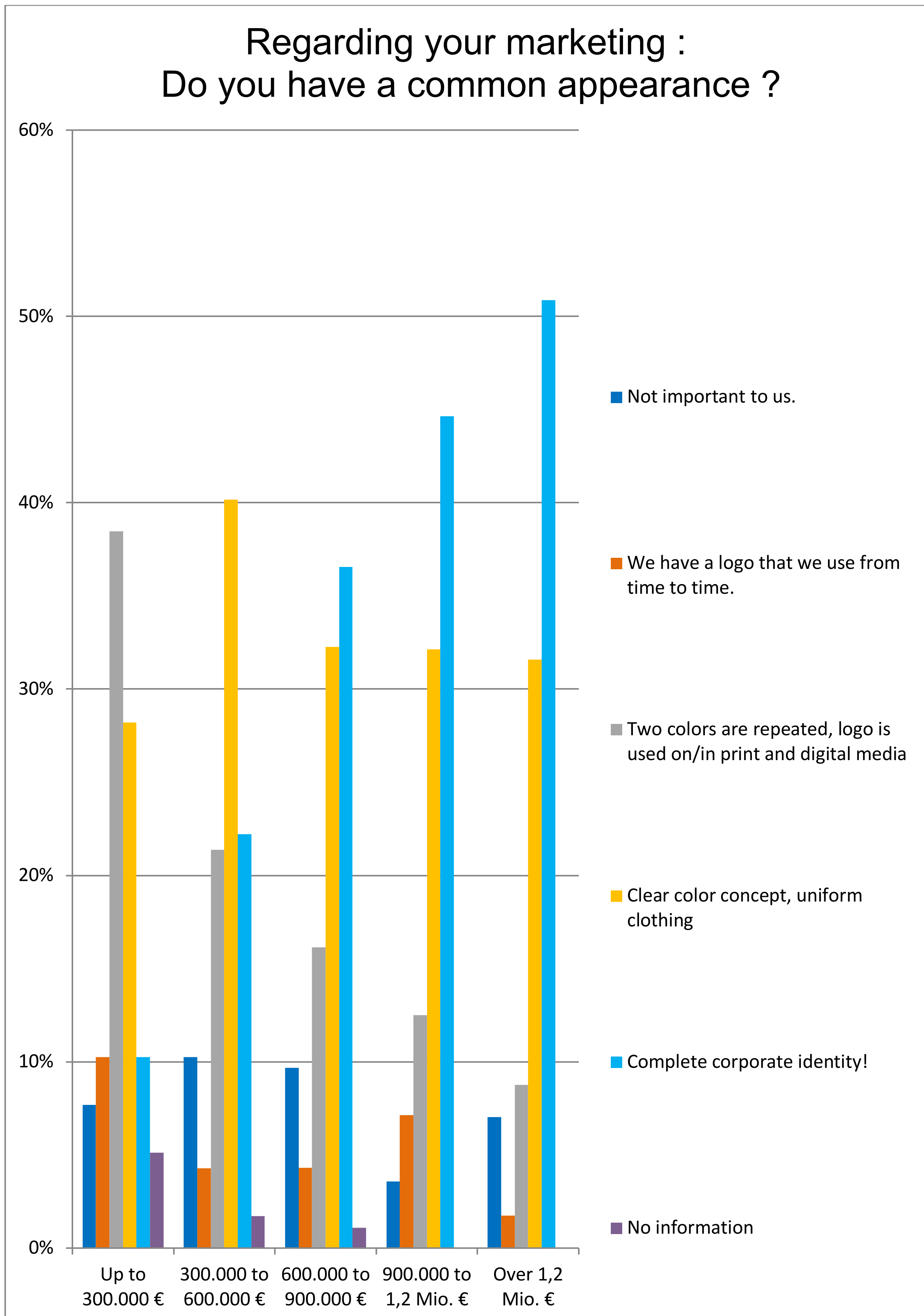
Appendix V: Administration Time and Revenue

p. 83



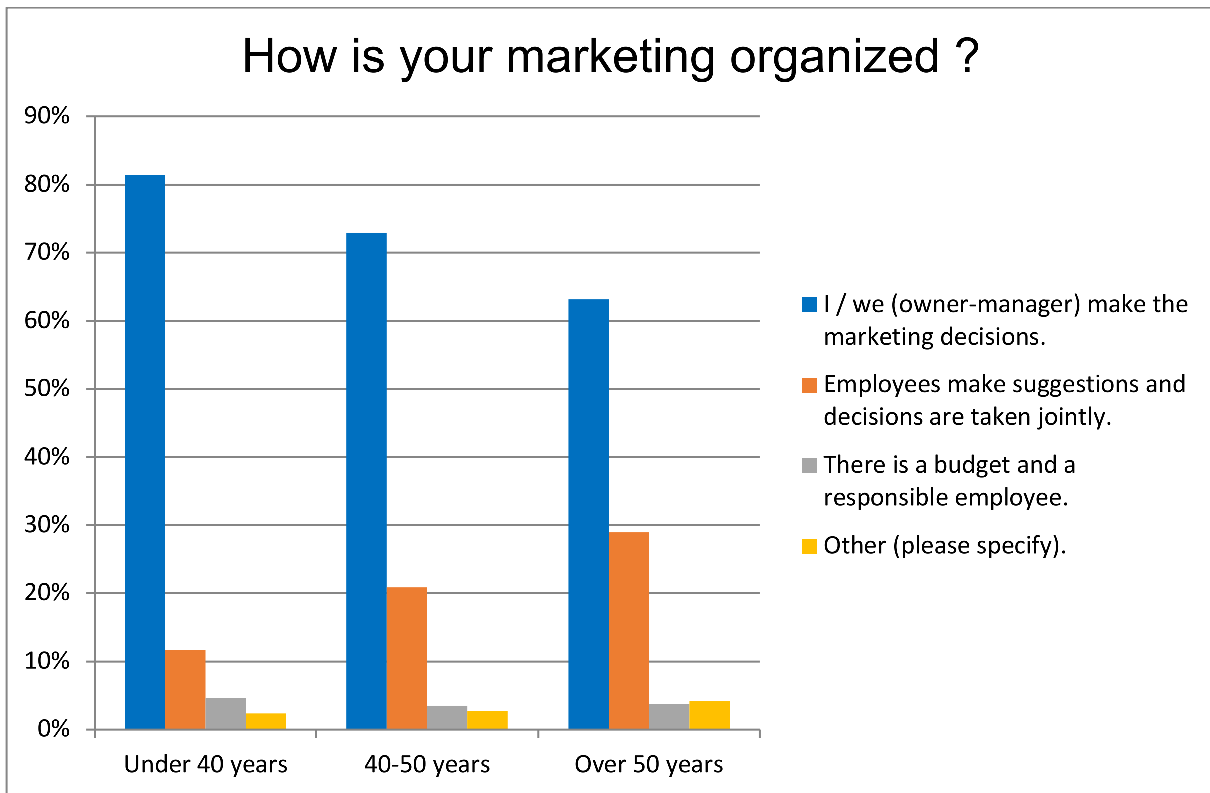
Appendix W: Corporate Identity and Revenue

p. 84



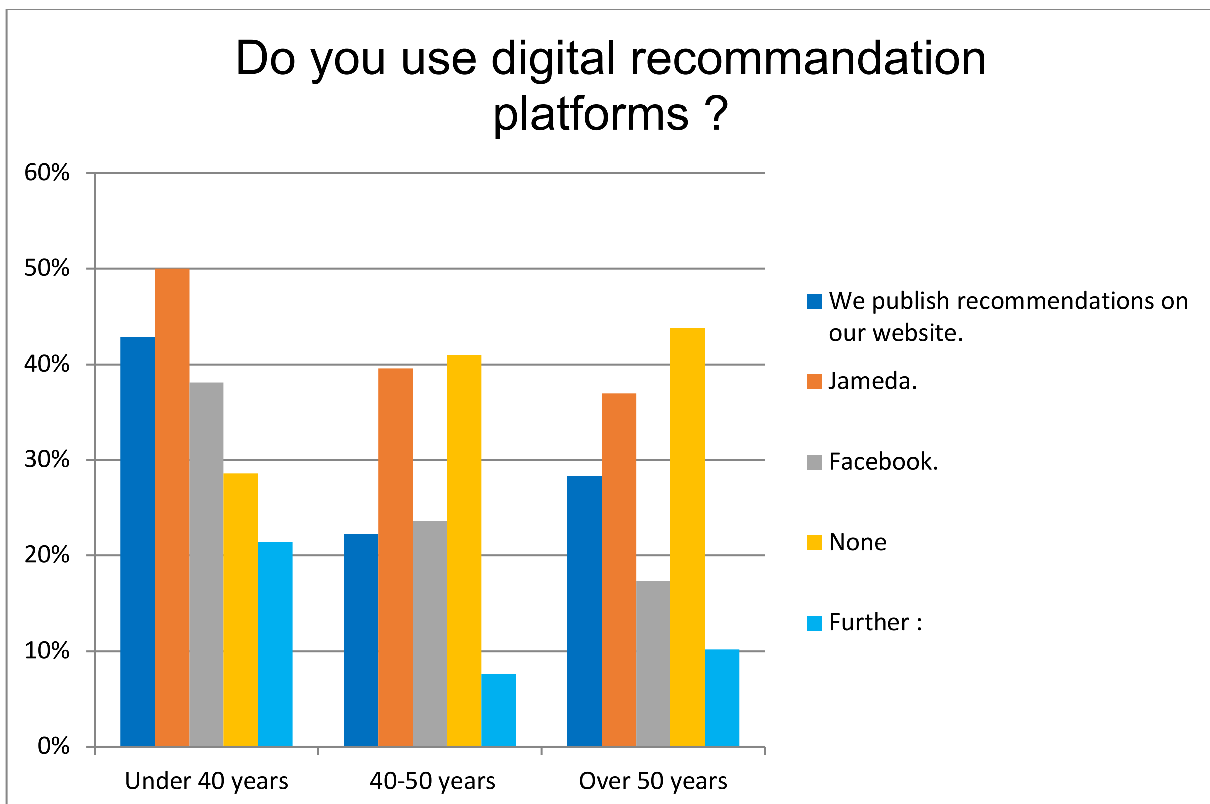
Appendix X: Marketing Organisation and Age

p. 85



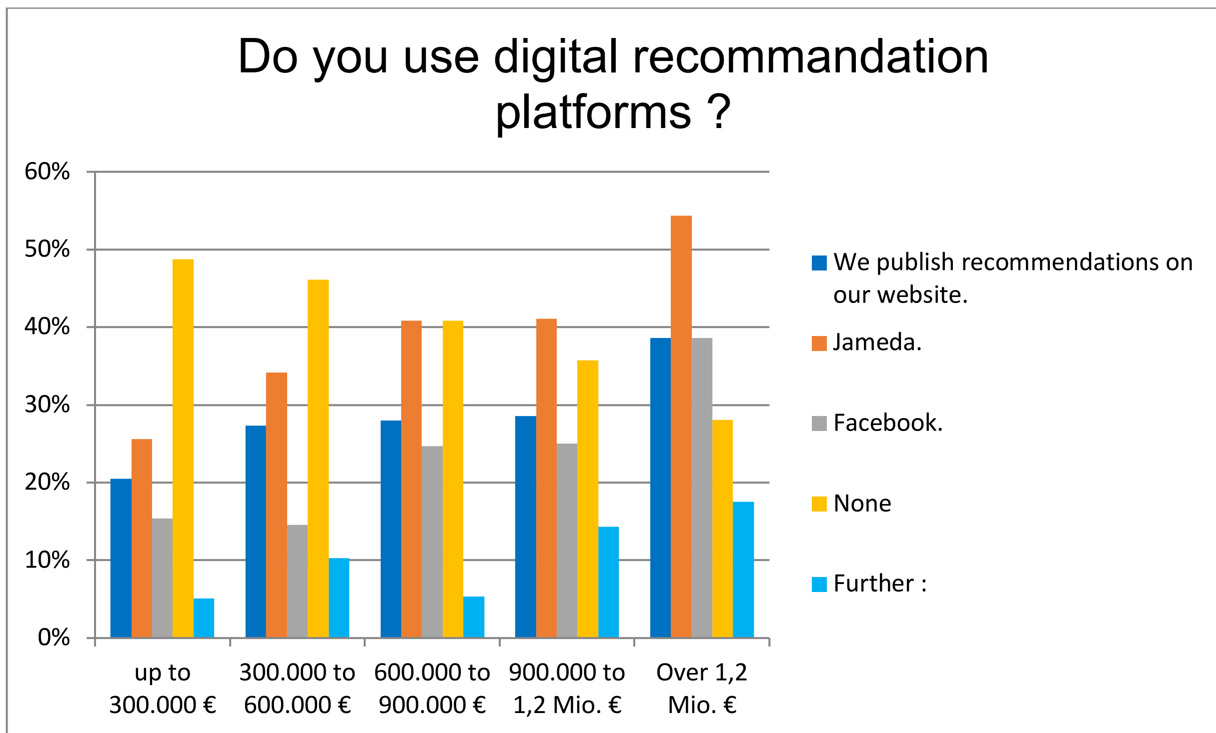
Appendix Y: Digital Recommendation Platforms and Age

p. 85



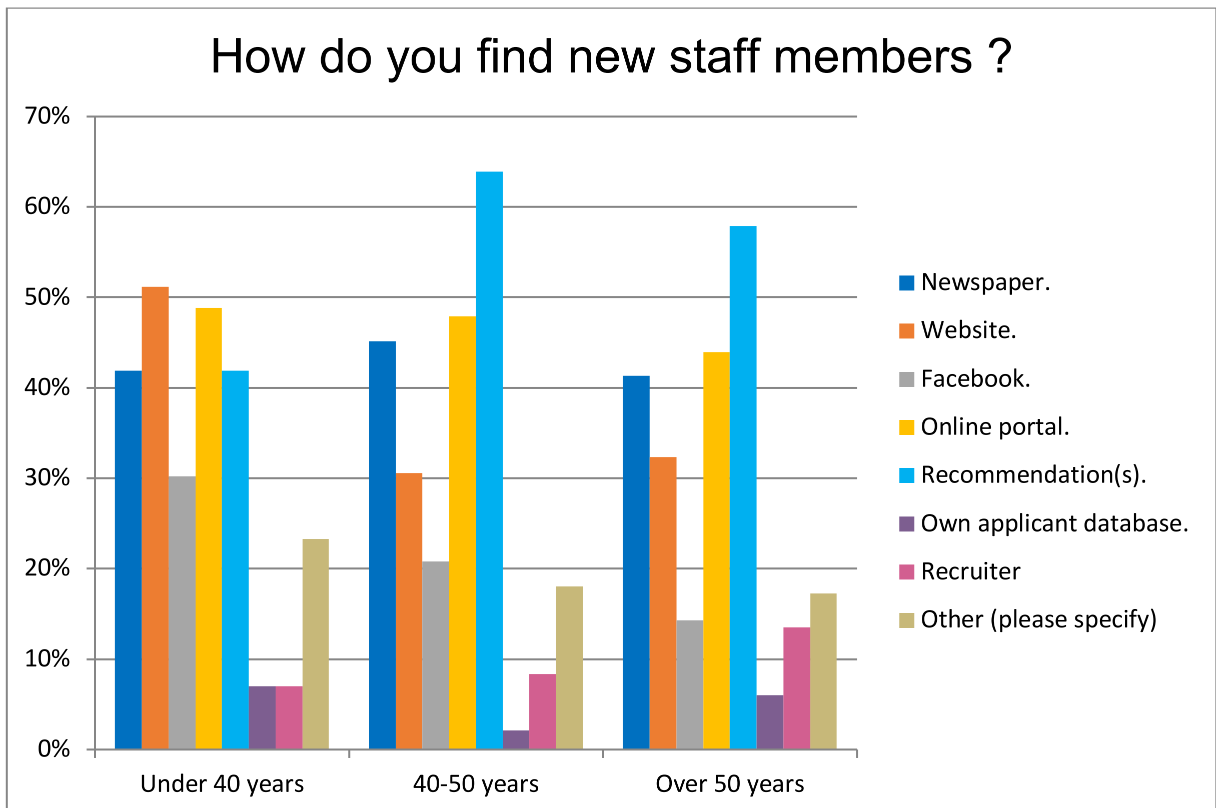
Appendix Z: Digital Recommendation Platforms and Revenue

p. 85



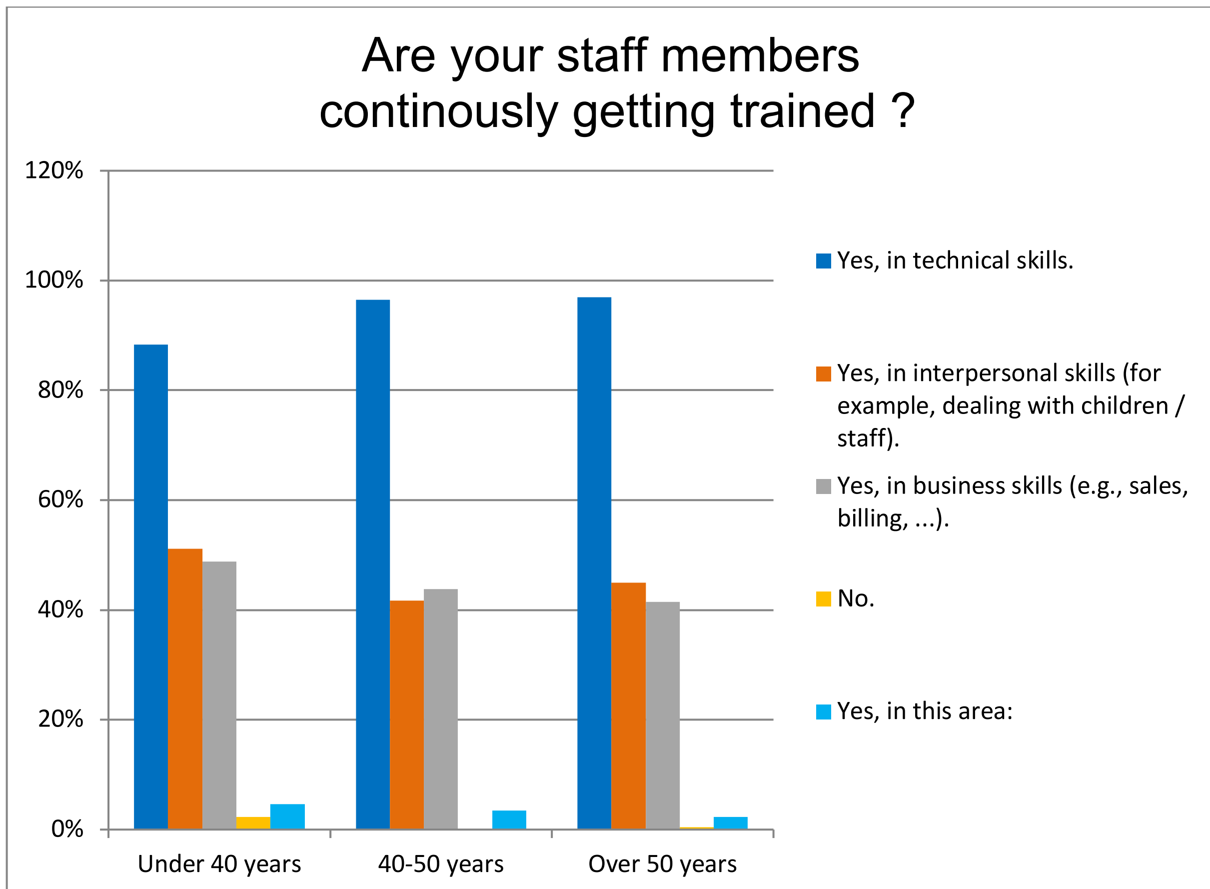
Appendix AA: Age and Job Hunting

p. 85



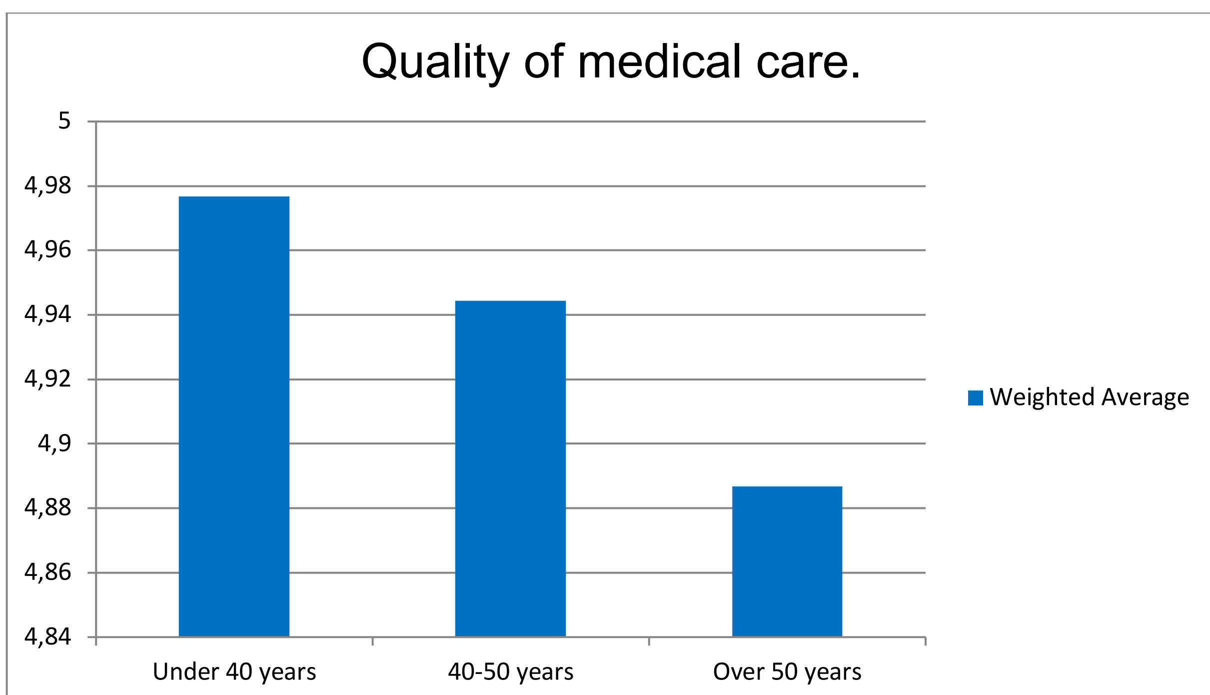
Appendix BB: Staff Education and Practitioner Age

p. 86



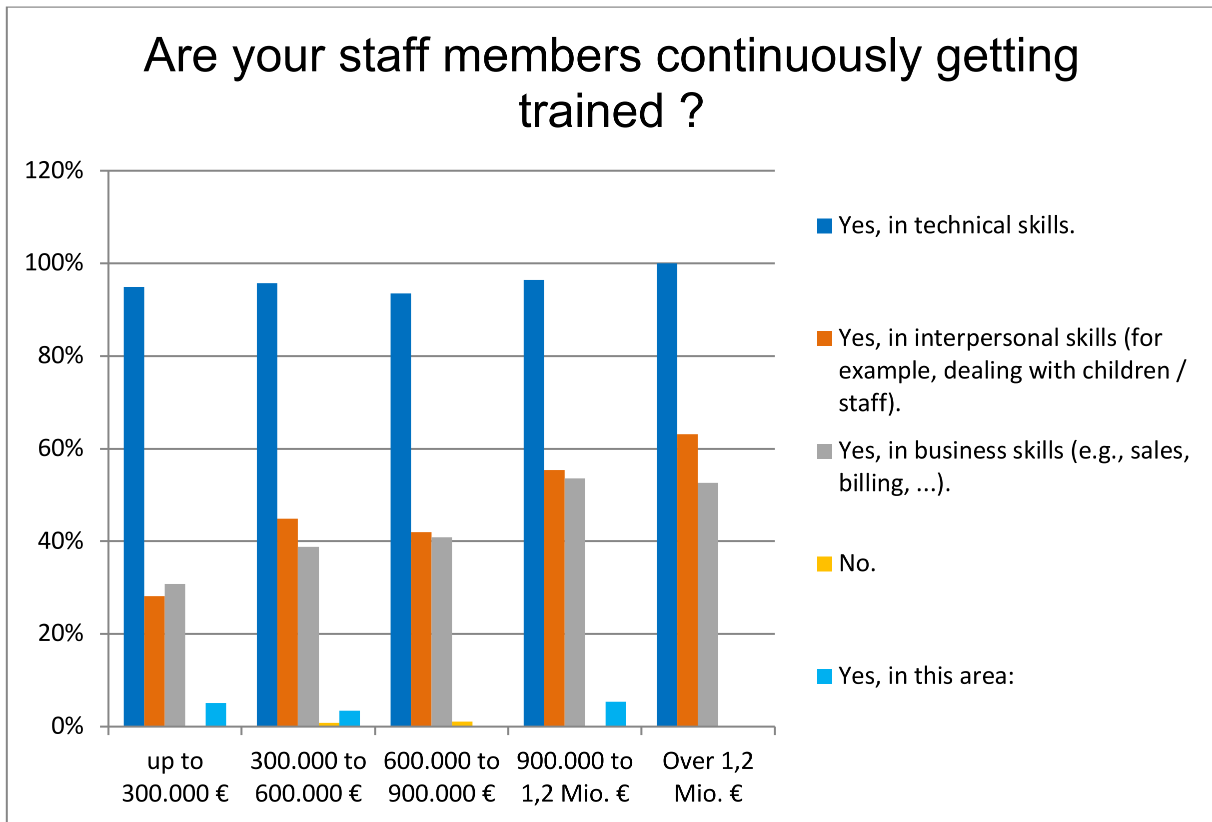
Appendix CC: Age and the Importance of Treatment Quality

p. 86



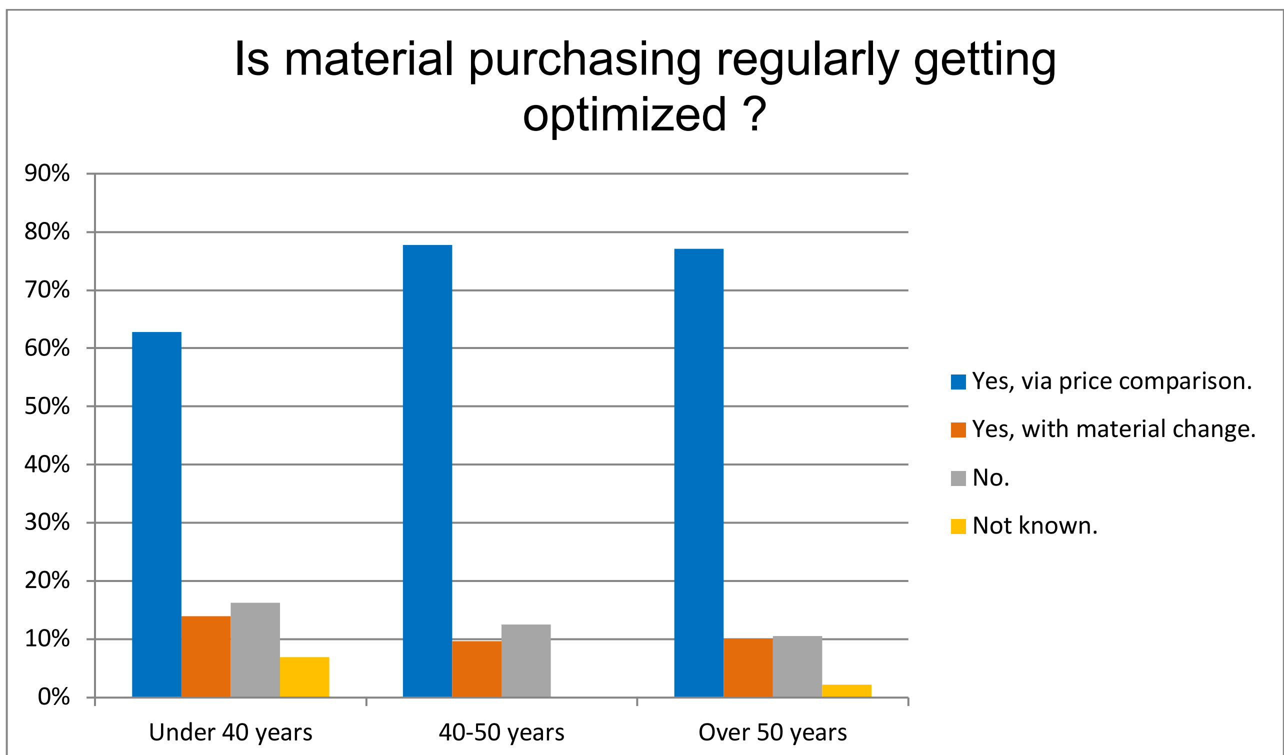
Appendix DD: Staff Education and Revenue

p. 86



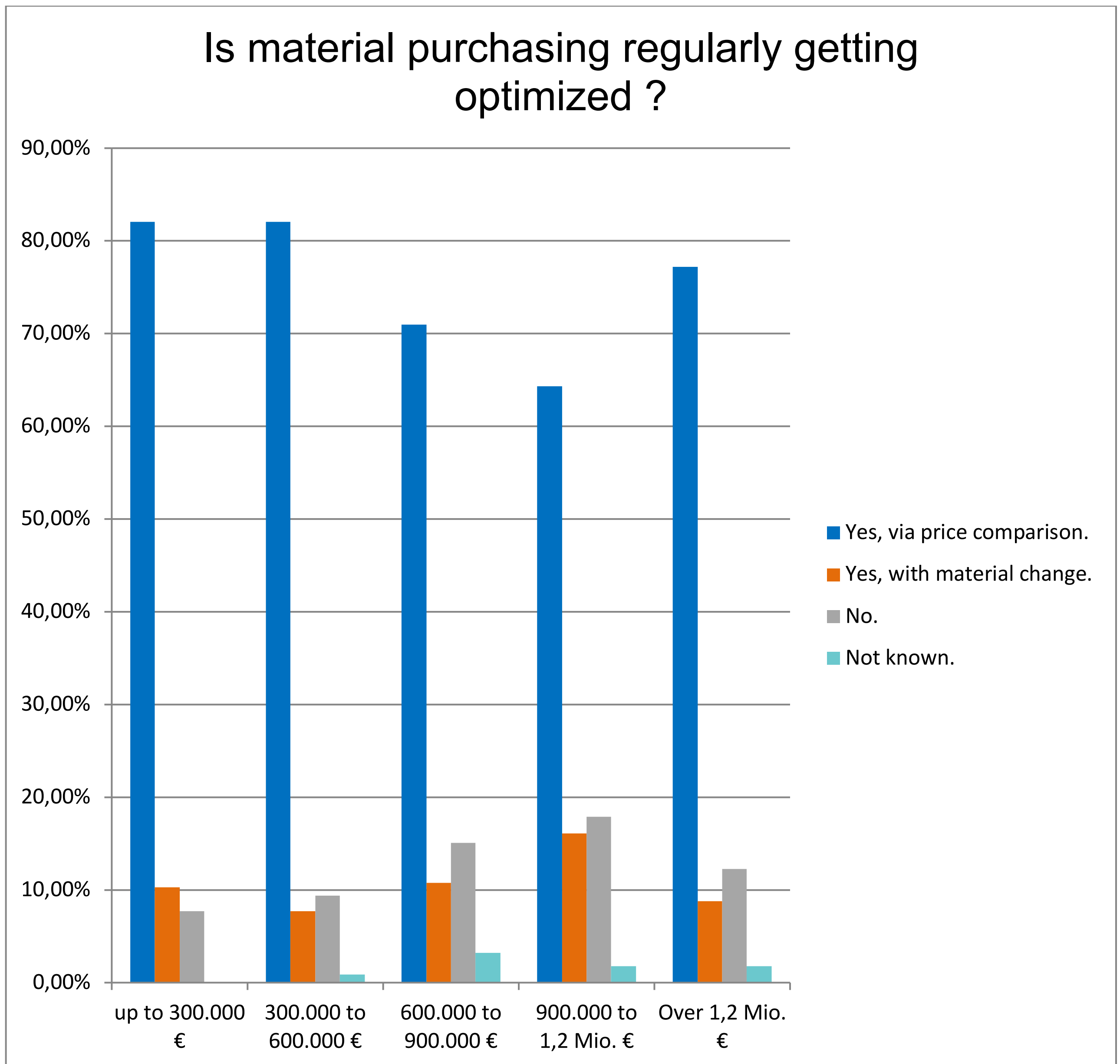
Appendix EE: Material purchasing optimisation and Age

p. 86



Appendix FF: Material purchasing optimisation and Revenue

p. 86



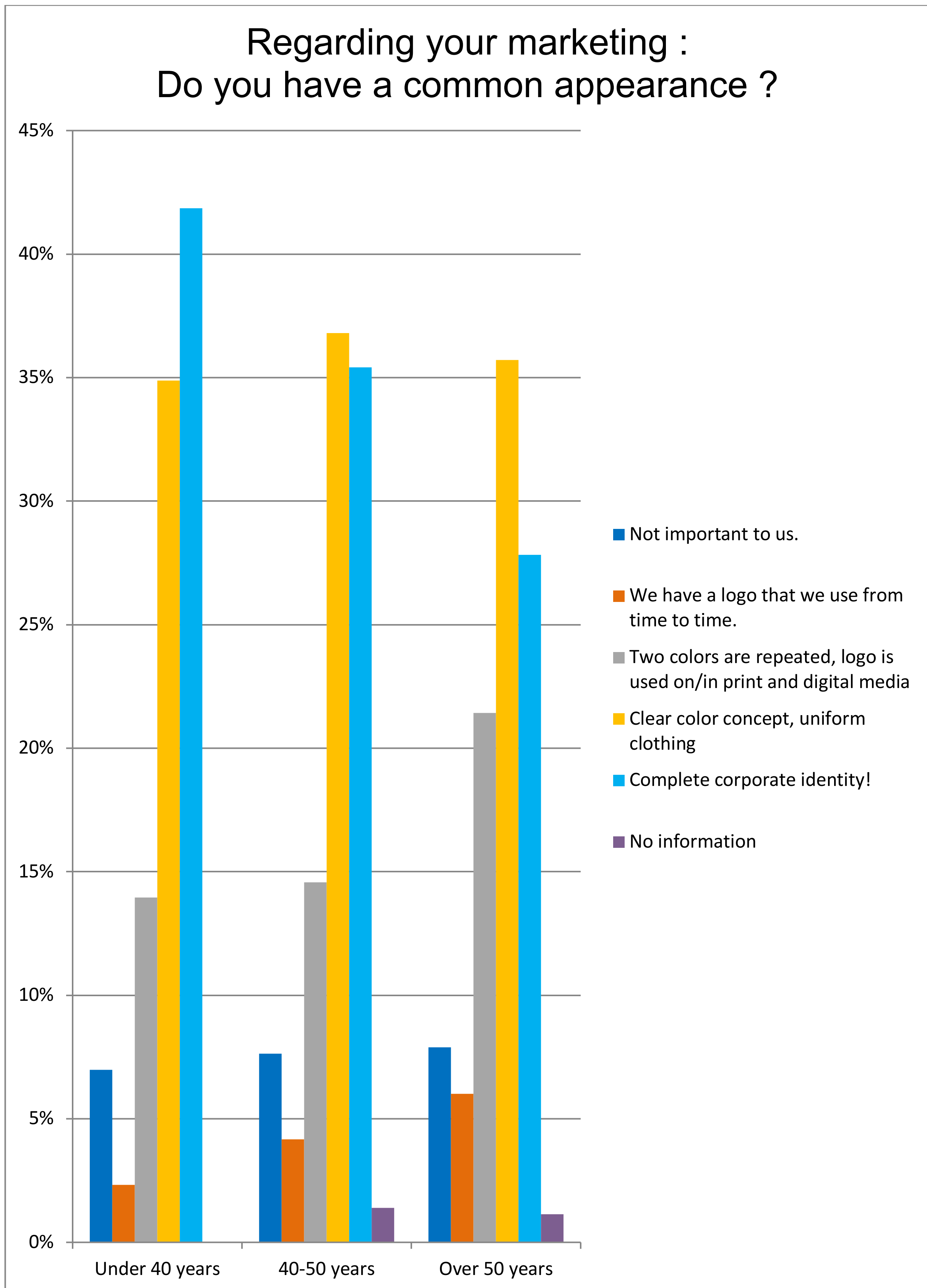
Appendix GG: Overlap of practitioner groups

p. 88

	CC	EP	BD	MG
CC	32			
EP	3	36		
BD	0	4	52	
MG	12	7	18	87

Appendix HH: Corporate Identity and Age

p. 103



Appendix II: Study Plan Dentist Charité Berlin

[354]p. 112, 114, 114

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Appendix 1.
Study plan for the preclinical part of the study of dentistry.

Course	Type	1. Sem	2. Sem	3. Sem	4. Sem	5.sem
Anatomy / Cell Biology (1)	VL	2,4 - **0,5**				
Physics / Physiology	VL	2	4,0 - **2**			
Chemistry / Biochemistry / Molecular Biology	VL	2	4,0 - **1**			
Materials Science	VL	1				1
Oral structural biology	VL	1				
Course of technical propaedeutics	VL	1				
Microscopic anatomy (histology)	Pr	0,5				
Internship of medical terminology	Pr	1 **-1**				
Biology (Cell Biology)	Pr	0,5				
Course of technical propaedeutics	Pr	20,0 - **2**				
Anatomy	VL		2,8	2,8		
Biology	VL		1			
Macroscopic anatomy	Pr		3,7	3,9		
Microscopic anatomy	Pr		1,5	1,7 - **1**		
Biology (Genetics)	Pr		1,6			
Physics	Pr		2			
Physiology	Pr		2,4	3,3 - **0,5**	2,2	
Chemistry	Pr		1,8			
Physiology	VL			3,9 - **0,5**	2,1	
Biochemistry / Molecular Biology	VL			4,0 - **1**	2	
Phantom course of Prosthodontics I	VL			1		
Biochemistry / Molecular Biology	Pr			3	1,5 - **0,5**	
Phantom course of Prosthodontics I (2)	Pr			15,0 - **2**		
Neurological anatomy	VL				2,0 - **0,5**	
Macroscopic anatomy (neuroanatomy)	Pr				1,2	

[354] Charité Universitätsmedizin Berlin, 2006, pp. 30–32

Microscopic anatomy (neuroanatomy)	Pr				0,3	
Science block	Pr (POL)				3	
Phantom course of Prosthodontics II	VL					1
Phantom course of Prosthodontics II	Pr					20,0 - **2**
Materials Science	Pr					2
Introduction to clinical medicine	Pr					0,3
Total		31,4	24,8	38,6 (3)	14,3	24,3

(1) The contents of the histology and development history are integrated in the individual organ systems distributed over three semesters.
(2) As a four-week block event during the lecture-free period: Including 14 hours (1SWS) Preventive Dentistry.
(3) Of which 15 SWS during the semester break

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Appendix 2.
Study plan for the preclinical part of the study of dentistry.

Course	Type	6. Sem	7. Sem	8. Sem	9. Sem	10.sem
Introduction to dentistry	VL	0,5				
Introduction to orthodontics	VL	2 - **0,5**				
Course in Orthodontic Technology	Pr	6 - **1**				
Radiology	VL	2				
Radiology course with special consideration of radiation protection	Pr	2				
Dental-surgical propaedeutics	Pr	0,5				
Dentistry	VL	2	2			
Phantom course tooth preservation + periodontology	Pr	12 **+ 3**				
Integrated course I			17,3 - **1**	17,3 - **1**		
Intergrated course II					17,3 - **1**	17,3 - **1**
Paradontology-op course	Pr				0,5	1
Paradontology	VL	2		2		
Orthodontics Clinical Course I and II	Pr				2,5	2,2
Orthodontics	VL		2 - **0,5**	2 - **0,5**		
Orthodontics course-accompanying demo	Pr				1	1
Pediatric Dentistry	VL			2 - **0,5**	1	
Pediatric Dentistry	Pr			2	0,5	0,5
Dental Prostheses	VL		2	2		

Dental maxillofacial surgery (dentist surgery)	VL		2			
Dental maxillofacial surgery (oral and maxillofacial surgery)	VL			2		
Tooth mouth jaw I (auscultando) (oral and maxillofacial, oral surgery)	Pr		3			
Tooth Mouth Jaw II (practicando I) Oral surgery	VL			1		
Tooth Mouth Jaw II (practicando I) Oral and maxillofacial surgery	VL			1		
Tooth mouth jaw III (practicando II) oral chirurgie	VL				1	
Tooth Mouth Jaw III (practicando II) Oral and maxillofacial surgery	VL				1	
Tooth Mouth Jaw IV (practicando III) Oral surgery	VL					1
Tooth Mouth Jaw IV (practicando III) Oral and maxillofacial surgery	VL					1
Science Block II	VL			2 - **0,5**		
Science Block II	POL				2	
Op - course I	Pr		2,575	2,575		
Op - course II	Pr				2,575	2,575
Implantology (lecture series) (1)	VL				1	1
Age Dendistry	VL				1	
Subtotal		32	30,875	35,875	31,675	27,575

(1) feeds on parts of prosthodontics, oral surgery and periodontics - VL

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Apendix 2.

Study plan for the preclinical part of the study of dentistry.

General medical subjects	Type	6. Sem	7. Sem	8. Sem	9. Sem	10.sem
Pharmacology / Toxicology	VL	2 - **0,5**				
Clinical pharmacology with a prescription course	VL		1 - **0,5**			1
Medical microbiology with hands-on exercises	VL	2				
General pathology	VL	2 - **0,5**				
Specific pathology	VL		2 - **0,5**			
Pathohistological course	Pr			2 - **1**		

Otorhinolaryngology	VL				1	
Gen. Surgery with emergency medicine	VL	2				
Internal Medicine with Infectiology Immunology	VL	2 - **0,5**	1,5			
Clinical Chem / -phys examination methods	Pr		0,5			
Hygiene including health care	VL		2 - **0,5**			
dermatology / Allergologie	PR			1		
Pain Clinic (2)	VL					1
Professional studies and history of medicine with special consideration of dentistry	VL					0,5
Subtotal continued appendix 2		10	7	3	1	2,5
Grand Total		42	37,875	38,875	32,375	30,075

(2) same parts of prosthodontics and oral and maxillofacial surgery

Declaration

I, the undersigned Jean-Pierre Himpler., by signing this declaration declare that the PhD thesis “The Growing Need of Business Thinkingin Oral Health Care - A Qualitative Study about Germany; Validation in Hungary” was my own work; during the dissertation I complied with the LXXVI. and the rules of the doctoral dissertation prescribed by the Doctoral School, especially regarding references and citations.

Furthermore, I declare that I did not mislead the supervisor (s) or the program leader with the dissertation.

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