Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 3, 61-74
2025
Publisher: Learning Gate
DOI: 10.55214/25768484.v9i3.5114

Ability, motivation and opportunity to participate in the digital change: A focus group study on new concepts for sustained learning in healthcare organisations

Sandra Starke[1*], Iveta Ludviga[2], Jonas Fröhlich[3]
[1]Banku Augstskola School of Business and Finance, Riga, Latvia; Sandra.Starke@ba.lv (S.S.).
[2]Riseba University, Riga, Latvia.
[3]Rhineland-Palatines General Practitioners' Association, Kaiserslautern District Medical Association, Kaiserslautern, Germany.

Abstract: The increasing significance of digital health services necessitates a sustained learning process. This study explores the linkage between motivation and the opportunity to actively participate in designing new concepts and competencies, emphasizing sustained learning as a dynamic capability. We conducted two focus group discussions with 21 participants. The collected data were analyzed and categorized using NVivo software. Our findings highlight the applicability of the Ability, Motivation, and Opportunity (AMO) model in digital transformation within healthcare. The role of first movers or early adopters emerges, driving innovation and inspiring broader adoption in the sector. Building digital competencies must be accessible and seamless, ensuring knowledge access and practical learning concepts. We advocate for integrating all stakeholders to foster a shared vision and comprehensive approach to digital implementation. Professional contexts significantly influence motivation, reinforcing the importance of autonomy in selecting learning strategies. This paper theoretically links the AMO Model to dynamic capabilities, clarifying how ability, motivation, and opportunity affect human resources development in healthcare. Relevant stakeholders must be engaged by providing tailored, practice-integrated learning initiatives that align with real-world healthcare challenges.

Keywords: *Digital Transformation, Healthcare, Sustained Learning*

1. Introduction

The healthcare sector is of immense importance to the German economy and society. With 196.4 billion euros and 4.6 million employees, more than half of the gross value added (total 364.5 billion euros, 7.4 million employees) is generated in the medical care of the population [1]. Digitalisation promises opportunities to reduce costs by changing and optimising processes [2]. Recent literature emphasises the importance of digital health solutions, yet challenges persist due to fragmented implementation strategies and varying stakeholder engagement levels. Legislators in Germany, therefore, are pushing digital change through the federal government's digital strategy, the Digital Act, the Act to Improve the Use of Health Data and investment subsidies such as "Digital Now" to promote the digitalisation of SMEs. The initiatives have yet to have the desired effect, like the electronic patient file introduced in 2021, which missed expectations in terms of usage [3]. An overarching concept is crucial, and the central company “Gematik”, with overall responsibility for the telematics infrastructure, is being reorganised into a "digital agency". Digital services such as electronic prescriptions and simple communication with a secure messenger service within the healthcare sector are to contribute to broader use. Digital services have become part of everyday life: paying with smartphones and wearables to measure and monitor health and activity data, messenger services, and social media have become

History: Received: 25 December 2024; Revised: 14 February 2025; Accepted: 17 February 2025; Published: 1 March 2025
* Correspondence: Sandra.Starke@ba.lv

indispensable. Several start-ups and established companies exploit new business models and offer various potential uses in medical applications and process optimisation. However, multiple stakeholders and patients involved are cautious regarding sensitive topics relating to their health data. In addition to concerns about data confidentiality, there are other obstacles. First, stakeholders need to invest in new technology. On the other hand, they also have to spend time and effort developing new competencies, which usually need to be improved in a complex and busy everyday life [4, 5].

There is extensive literature on developing dynamic capabilities in the change to capitalise on these benefits, e.g. through new business models and competitive advantages. Although learning concepts, knowledge management and the development and expansion of competencies are mentioned as essential prerequisites [6-8] there is still little knowledge on designing the processes involving all stakeholders, especially in the healthcare sector with unique features [9]. The importance of individual competencies, motivation, and also suitable accessibility is highlighted in previous literature [10-13]. Still, there is a deficiency in the structured development of dynamic capabilities in the digital transformation of the healthcare sector. The swift pace of technological development is leaving healthcare stakeholders behind but is also overtaking research Jia and Hou [14]. Due to these gaps in the understanding of individual motivations and obstacles of the actors or even complete misinterpretations of user behaviour in everyday life, there is a lack of sustainable concepts and models as a basis for deriving recommendations for policy and management.

This paper aims to answer the research question of how actors in the healthcare sector can be empowered to participate, build new competencies, and sustain learning over time, accelerating digital transformation. In this study, we investigate how the core elements of AMO theory can be applied to the engagement of actors and linked with the development of dynamic capabilities in the digital transformation of the healthcare sector.

Thus, we make a theoretical contribution by expanding the theory of dynamic capabilities and introducing essential elements of motivation, suitable access routes to knowledge building, and continuous learning as a critical capability.

1.1. Related Literature and Theoretical Framework

In the healthcare sector, the focus is on providing services to people, so the motivation and integration of individuals, particularly their knowledge and willingness to learn, is of immense importance [15]. In the context of digital change, a large body of research highlights the advantages of new technologies in healthcare, such as electronic patient records, video consultations and new business models, e.g., online pharmacies or completely virtual telemedicine [16-18]. However, it appears evident that more than providing a digital infrastructure is needed; the human factor and its willingness to deal with this new technology must be considered, especially in the complex structure of the healthcare system [9, 19]. Learning, with its cognitive and psychological aspects, has an essential role in the desired outcome for employees' openness to digital change [20].

The theoretical basis of this research is the theory of dynamic capabilities, a frequently used approach to explaining how to achieve the desired result of an organisation adapting to digital change [21, 22] Dynamic capabilities are defined as change routines that can sense (market) changes and (digital) opportunities and seize them through a new combination of resources to manage or transform threats into advantages by reconfiguring assets [7, 23, 24].

While researchers generally underscore the relevance of dynamic capabilities in organisational transformations, there still needs to be more clarity on how to develop these capabilities on the individual (micro) level. Motivation and the willingness to adopt digital innovations are underscored in literature as important influencing factors [11, 25, 26]. We see an incredibly high demand in the healthcare sector, served by a limited number of service providers. Hospitals, doctors, nurses, and many other providers of health services are scarce commodities and demands and responsibilities are high [27]. The digitalised world is becoming increasingly complex, and care providers are having to deal with topics that are unrelated to their field. Recent studies argue that the AMO (Ability, Motivation,

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 3: 61-74, 2025
DOI: 10.55214/25768484.v9i3.5114

Opportunity) theory provides a framework to shape individual capacities to engage with digital technologies by fostering a culture of learning and adaptation [14, 28]

This study focuses on medical doctors as service providers and health insurance companies as payers of health services. They need to change their established processes and implement new routines to continue learning over time. It is crucial to integrate suitable concepts into everyday working life. The AMO (Ability, Motivation, Opportunity) theory developed by Appelbaum et al. is defined as the systematical development of abilities, the enhancement of motivation and opportunities to realise one's full potential on job performance [29]. We state that an increasing ability will enhance dynamic capabilities in digital transformation processes in healthcare if actors in healthcare are motivated to learn and have sufficient opportunities in their workplaces. We therefore investigate the applicability of this theory, which is widely applied in Human Resource Management (HRM) to digital transformation in healthcare, linking it to sustained learning as a dynamic capability. The three dimensions of the AMO model are explained as follows.

1.2. Development of Competences (Ability)

In AMO theory, "ability" refers to the development and enhancement of competencies [14], which enables individuals to perform (a specific task) successfully [30]. Through continuous training and development opportunities, people feel more competent and confident, which increases satisfaction and opens up new perspectives in the world of work.

1.3. Increasing Motivation (Motivation)

Motivation is the extent to which individuals engage in specific behaviours [31]. Creating an effective incentive system that recognises and rewards performance is an essential factor influencing motivation and satisfaction. Incentives do not necessarily have to be monetary; if the meaning and purpose are clear and one's contribution is valued, this increases intrinsic motivation and satisfaction [29].

1.4. Creation of Opportunities

According to the AMO theory, the opportunity to participate and influence is the third component that leads to motivation and satisfaction. This is achieved through a supportive and flexible working environment that offers opportunities for innovation and personal responsibility [29]. According to previous literature on HRM research, AMO is a fundamental theory for developing and applying methods to enhance employee engagement and performance. Despite its widespread use, this theory has been criticised for failing to take dynamic changes and individual and organisational developments and for remaining rather vague [32]. A sustained knowledge and learning culture (Ability) must be established in digital change. The exchange in networks could increase digital technology aligned with supportive learning conditions (Motivation), where easy access to knowledge and integration into daily practice (Opportunity) are the basis for dynamic capabilities in digital change.

2. Methodology

2.1. Design

Due to the objective of this research to explore the experiences of actors in healthcare with competence development and new learning concepts, we applied a focus group discussion as a standard methodology in healthcare research Wilkinson [33]. As used in other studies, focus groups are well suited to better reveal opinions and tacit knowledge in the interaction between participants than in individual interviews [34].

2.2. Setting

We set this study in Germany in the context of networks and professional environments that deal with digitalisation in the healthcare sector. Due to the special relationship of trust with their patients,

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 3: 61-74, 2025
DOI: 10.55214/25768484.v9i3.5114

doctors play a vital role as a guide for their patients and in creating an appropriate offer [35]. Health insurance companies are also highly relevant in designing concepts for digital knowledge and future competencies. As payers of health services, they must proceed with digital data delivered by the health service providers. They should, therefore, be the first movers in transferring legislative frameworks into practical application. The statutory health insurance system must also deal with extensive changes. However, gradually modernising is preferred rather than radical upheaval for better acceptance [36]. It is, therefore, essential to gain a deeper insight into these stakeholders' needs and access to knowledge and learning to design suitable training concepts. With the "Health Innovation Hub (HIH)" project, the Ministry of Science and Health of the federal state of Rhineland-Palatinate is promoting the networking of expertise in artificial intelligence to contribute to digitalisation and process optimisation in the healthcare sector. The District Medical Association offers registered and employed doctors a platform for exchanging information and primarily fulfils public relations and training tasks. Both networks contribute significantly to transfer and knowledge management and were a starting point for designing and setting the focus groups. Two focus group discussions were held (one in person and the second online). The 21 participants were medical doctors, health insurance company employees, and network members.

2.3. Participants

The data was collected in a convenience sample, as a common data collection method in healthcare research Renjith, et al. [37]. The first and second author invited all doctors in private practice in the Kaiserslautern city and district area. These potential participants were therefore limited to the Kaiserslautern city and district region, listed in the local business directory, i.e. a total of 113 addressees (joint practices count as one addressee); in addition, 900 invitation emails were sent via the distribution list of the district medical association. A total of 14 medical doctors accepted the invitation. 2 members of the Health Innovation Hub with academic backgrounds were personally invited and participated. In addition, the employees in the IT operations division of the health insurance company, who are also active members of the HIH, were invited by email, totalling 48 people. Five of the invited employees agreed to participate.

2.4. Realisation

The focus group discussion took place on-site with 14 medical doctors and two network members and online with five health insurance company employees, following a semi-structured format. We divided the on-site participants into three groups. The guiding questions (Appendix A) were discussed for 20 minutes, moderated by the author, the co-author and one member of the network "Health Innovation Hub". The groups switched twice, reworking the already discussed results until all three groups answered all three questions. In the online group, we discussed the same questions via MS Teams; the session lasted 60 minutes.

2.5. Data Analysis

The questions discussed in the focus groups were drawn up based on an intensive literature search. The moderators noted the ongoing discussion. As a result, these notes were summarised and made available to all participants by email after the event for review and, if necessary, additions. This documentation was analysed and coded using NVIVO software. In the first step, we identified categories to derive critical factors, which were discussed and revised with the co-authors. We framed these results of the focus group discussions with the dimensions of the AMO concept and designed a conceptual framework as the foundation for further quantitative analysis.

3. Results

First, the discussion notes were analysed textually and visualised in a word cloud (Figure 1) as a starting point for the in-depth analysis [38].

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 3: 61-74, 2025
DOI: 10.55214/25768484.v9i3.5114

The participants highlighted learning, networks, training, and competencies as the main factors in digitally transformed workplaces. Practice and everyday work highlight the need to integrate these factors to enable continuous learning. Data, security, and information highlight the concerns and potential barriers to adopting digital technologies.

Figure 1.
Word cloud, data from the focus group discussions analysed with NVivo.

From our analysis of the documentation, we identified four main categories that enable individual participation in the change process. These categories emphasize the key factors for overcoming acceptance barriers and creating the conditions necessary for a successful digital transformation (Table 1) and are explained in the following subchapters.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 3: 61-74, 2025
DOI: 10.55214/25768484.v9i3.5114

Table 1.
Categories and factors from focus group discussion.

Category	Factors
Individual characteristics	• Mindset: Openness and adaptability • Adoption: Acceptance and integration • Autonomy
Training and Education	• Assessability • Integration
Networking	• Interdisciplinary exchange • Overcoming networking hurdles
(Digital) Expertise	• Basic knowledge of the operation and legal framework • Data competence (analysis, interpretation, backup)

3.1. Individual Requirements

The participants highlighted individual behaviour and mindset as decisive factors in accelerating digital transformation in healthcare organisations, accentuated by the appearance of learning, practice, openness, and change in the word cloud. They believe openness of thought and willingness to change work processes and established routines is evident ("*We should be open to new ideas, via social media, from trainees, students")*. In the digital world, the advantages can only be achieved by different professional groups working together and overcoming the boundaries of their responsibilities (*"Every day queries can be swiftly answered, e.g. the availability of different medications")*. However, the benefits of digital technology must be clear, and the effort to obtain the necessary knowledge should be as low as possible (*"We need fast and reliable availability of data in a concise format")*. The participant believes new digital processes must be easily integrated into everyday working life (*"Barrier-free, low-threshold and via various channels")*. They want specific information, so they only have to deal with relevant information in a form that is easy to understand (*"We require fast and dependable access to data in a succinct format")*.

Nevertheless, impeding digital health requires the willingness to develop continuous knowledge. Autonomous, independent learning with sufficient flexibility is a prerequisite for this willingness (*"The learning opportunities should be accessible at all times, without a specific time slot")*. They suggest collaborative learning to benefit from each other's knowledge. Role models or best practices could inspire others (*"Learning should take place regularly, preferably with everyone taking part and sharing their experiences")*.

3.2. Training and Education

The participants explained the relevance of external conditions and the accessibility of learning opportunities, as shown in the word cloud with the term's courses, available daily, and training. In terms of access, the content and the ability to integrate it into everyday life are essential. Online offerings are readily accepted and are easier to schedule without long travelling times. However, they remain on the surface, offering less room for intensive discussions and elaboration. The participants appreciate face-to-face meetings due to the better framework for didactic design, with room for discussion. Such events are a suitable platform for presenting new ideas, arousing interest and developing concepts. Online offerings, on the other hand, are ideal for conveying targeted information and enable participants to act quickly (*"Training must take place at different levels so that everyone is covered")*. The knowledge imparted can be repeated online afterwards without great effort via apps or platforms such as YouTube or deepened if required. Overall, promoting a suitable learning environment is desired, integrating the regular use of digital media into learning. Reminders and follow-ups are cited as necessary to follow up and recall information (*"Ongoing offers of training opportunities are important")*. However, this must also fit into everyday life and be flexible regarding time. The medical doctors emphasised that a negative example is practice software with integrated reminders for learning. In principle, this functionality corresponds to the goal of a sustained, continuous supply of information, in which they receive specific, further knowledge when entering a diagnosis into the software. However, in day-to-day practice, they

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 3: 61-74, 2025
DOI: 10.55214/25768484.v9i3.5114

cannot integrate these learnings. They strive for autonomy to acquire knowledge self-determinedly at a suitable opportunity. However, the participants critiqued the lack of easy accessibility and customised preselection as a potential barrier (*"I feel well or even over-informed, you can get all the knowledge you need somewhere. The decisive factor is time and the ability to find specific topics"*). They suggested customisation to user-specific needs and recommendations for applicable self-directed learning content (*"Doctors could create educational videos"*). However, the participants also point out that mandatory training, supplemented by voluntary offerings, is needed depending on the objectives. If an enhanced digital transformation is the shared vision of society, legislation and organisations, an overarching framework including basic knowledge and mandatory training is suggested to be designed and offered. The learning opportunities should be positively incentivised (*"free access*"), e.g., by emphasising social exchange.

3.3. Networking

We identified a high potential of networks to provide targeted access to these topics through exchanges of experience and recommendations, indicated by the terms networks, exchange, information, and benefits in the word cloud. There is a desire for target group-orientated offers and easy access to training courses (*"Provide security and encourage creativity and motivation"*). There are already many offers from associations, pharmaceutical companies and congresses. The challenge is to filter out the right ones (*"Who can I ask?"*). In networks, there is greater trust that members will support each other and get recommendations (*"What do others already use, what can I learn from (failures) successes?"*). Overcoming networking hurdles was a compelling aspect of the discussion. In the discussion, the participating doctors addressed the problem that the sector boundaries or different healthcare professions still work in isolation instead of focussing on the central patient journey and continuing to work seamlessly with each other (*"We need an interdisciplinary exchange instead of lone wolves"*). From the participants' point of view, time expenditure due to interrupted communication, complicated processes or multiple examinations and, as a result, treatment quality and patient experience could be improved (*"The flow of information is often interrupted in everyday life, creating additional work"*). We hypothesise that the networking of those involved will be crucial in successful digital transformation through a joint discussion and conception of target images for collaboration and subsequent digital implementation (*"Put theoretical findings into practice as soon as possible and improve them iteratively with feedback"*).

3.4. (Digital) Expertise

The participants see digital technology as essential (*"Digital data availability and utilisation is important for the healthcare sector. Too many processes are still analogue and therefore difficult to transfer"*), highlighted by the terms competencies, knowledge and understanding in the word cloud. There is an agreement that necessary future competencies lie in the secure handling, availability, interpretation and validation of data (*"What is the legal situation, how is data encryption done, and how do I secure sensitive data?"*). However, the current knowledge level in healthcare is perceived as wide-ranging. Some have already dealt intensively with technology, while others require basic knowledge as a foundation (*"A basic understanding must be built up, as the use of digital technology is not taught in medical studies"*).

One obstacle to adoption is the "flood" of information and data; it is not clear which digital services are helpful in everyday life (*"We don't know how to deal with a large amount of data and recognise (medical) misinformation"*). A tangible advantage in terms of time and cost savings should outweigh the investment in equipment and knowledge (*"The world of work and society are changing rapidly, and digital, networked technology allows us to react more quickly and flexibly"*). However, all participants agree that changing behaviour and mindset is inevitable (*"We should learn to be open to innovation and overcome our fear of digitalisation"*).

The discussion results underline the critical role of digital or future competencies, motivation through benefits in everyday practice, better integration and joint discussion with all network

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 3: 61-74, 2025
DOI: 10.55214/25768484.v9i3.5114

participants, and easy access to information and learning concepts. These factors strongly correspond to the three dimensions of the AMO theory. Therefore, the categories derived are classified in the AMO model's framework (Table 2).

Table 2.
Classification of results in the AMO model.

AMO model	Category from focus group	Factors
Ability	• Training and education • (Digital) Expertise	• Knowledge enhancement • Essential competencies to understand problems and discover new opportunities
Motivation	• Individual characteristics • Networking	• Internal motivation with a willingness to learn • Extrinsic motivation through supportive conditions, including cooperation, social activities and work-life balance
Opportunity	• Training and education • Individual characteristics	• Assessability and integration into daily routines • Autonomy in decision-making

3.5. Motivation

First movers or early adopters, such as individuals, organisations, or even governments, who take up and apply innovations very early, are motivating as role models, increasing their willingness to learn. Motivation can gradually inspire others through networking and exchange, but it also serves as best practice or for learning from unsuccessful implementations. Learning from others and cooperating to share efforts and expenses.

3.6. Opportunity

Opportunities for active participation are of immense importance to the participants' opinions. For healthcare professions, their associations, in exchange with politicians, are the organisers of this participation opportunity, implemented by organisations and individuals. Concerning the subsequent application, it is evident among medical professionals that incentives in the form of time savings or improvements in treatment quality are essential. The health insurance company employees see digitalisation as granted, primarily due to the legal framework.

3.7. Ability

Enhancing current knowledge levels was mentioned as essential. Access to learning opportunities should be as simple and barrier-free as possible, as a constantly monitored low-threshold offer. Most critical are the secure handling of data and the ability to integrate digital technology into everyday life. Deeply specialised knowledge is required, but a fundamental understanding and essential competencies that lead to an open attitude and willingness to rethink and work with digital services are also needed. Based on these results, we created the following conceptual model (Figure 2).

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 3: 61-74, 2025
DOI: 10.55214/25768484.v9i3.5114

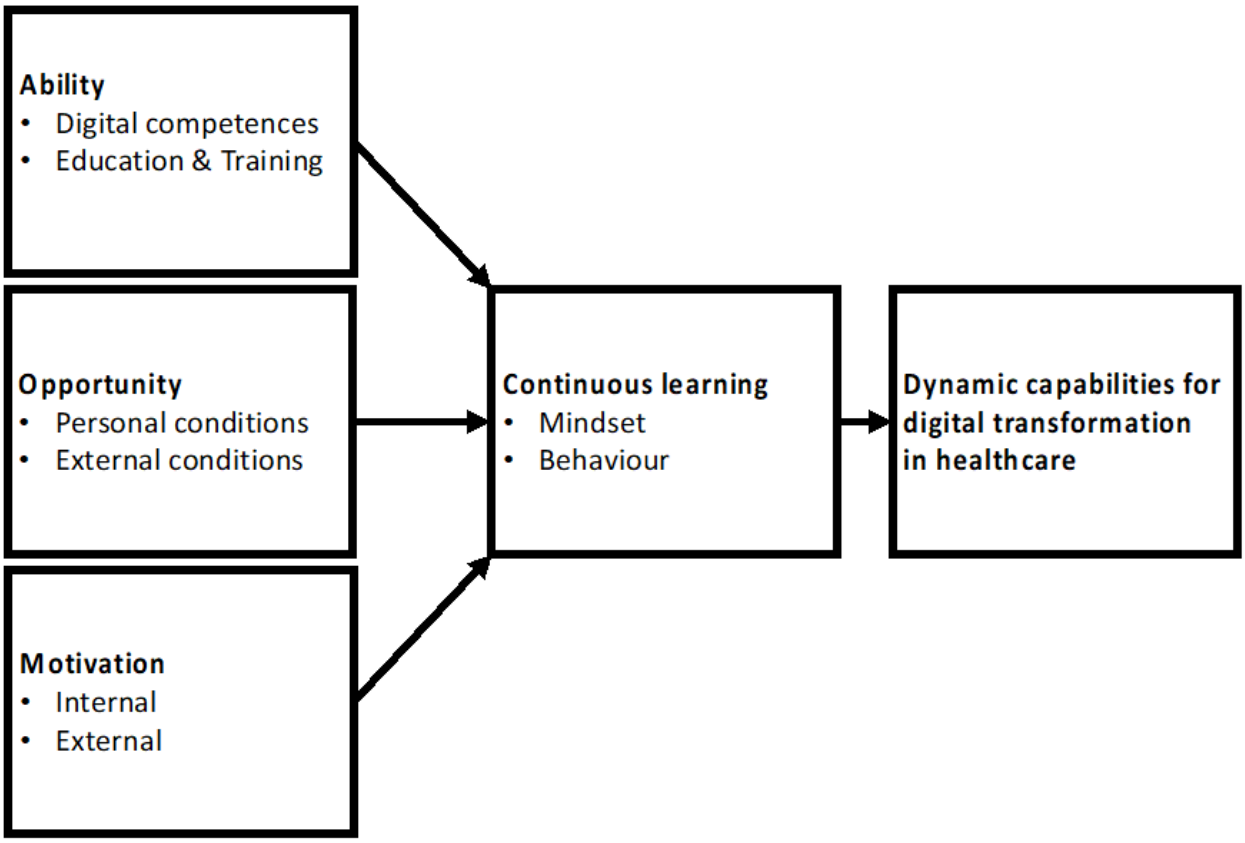

Figure 2.
Conceptual model.

4. Discussion

This paper intends to critically examine and evaluate the results of the focus group discussion in the context of existing research. It proposes a link between HR research and dynamic capabilities for digital transformation in healthcare organisations, matching the derived categories of individual characteristics, training and education, networking, and digital expertise to the AMO subdimensions.

The AMO theory is frequently used in HR management research but is also the subject of controversial debate. However, researchers critique the theory for remaining very vague. They argue that the theory offers a robust basis but can be applied to almost all HR management aspects [39]. Resource-based theory, from which dynamic capabilities theory was developed, has been similarly criticised [40]. Both theories were considered together in previous literature, describing the AMO theory as an expansion of the resource-based theory to identify the potential of the employee resource and to invest accordingly in the development or expansion of resources [41]. Our results are similar to what was found by Ruzic; basic knowledge about digital technologies occurs as a foundation for understanding and adoption to create benefits. Other research points to the need for an iterative process and continuous learning to adapt to uncertain and rapidly changing external conditions [26].

The AMO theory explains the connection between measures and concepts for learning and knowledge creation. To overcome the criticised vagueness, this mechanism is relevant to describe the successful implementation of digital transformation; a more detailed investigation is crucial. The theory proposes that well-trained and empowered people deliver better results, and motivation leads to doing more than is necessary. Based on this approach, we discussed the relevance of a supportive environment

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 3: 61-74, 2025
DOI: 10.55214/25768484.v9i3.5114

and other conditions to create motivation, the role of access routes as opportunities to participate, and the building of necessary digital competencies and skills.

We state that linking AMO theory with resource-based theory and dynamic capabilities theory is essential to exploring the mechanisms by which capabilities, motivation, and the opportunity to participate impact the building of knowledge-based resources around dynamic developments to increase competitiveness or organisational performance [42].

Our findings indicate that all three dimensions of ability, motivation, and opportunity are essential for sustained learning and competence building in digital transformation. These results corroborate the work of Mehralian, et al. [28] which explored the impact of practices aimed at enhancing ability, motivation, and opportunity on the development of dynamic capabilities, serving as a mediator for optimised adaptation to technological change and the swift progression of innovation resulting from it. There is a need for consensus on how best to elucidate the relationship between the three dimensions of the AMO Model [31]. Most research systematically examines all three factors as a summative model [30]. Other studies emphasise that all dimensions must be present and mutually reinforce one another multiplicatively [43].

Our findings meet these results displayed in the work of Bos-Nehles; the relationship between the three dimensions appears to reinforce each other. Supportive external conditions like target group-orientated communication and easily accessible, understandable information, as well as individual characteristics, first and foremost autonomous decision-making, are perceived as of high importance by the participants in our study. They also highlighted the relevance of social interactions and collaboration in networks, as previous research emphasised the encouraging effect and increased effectiveness through support and teamwork [44]. These results support the findings of Trullen, et al. [45] emphasising consulting and role-modelling as opportunity-enhancing initiatives for successfully implementing new practices [45]. These participation opportunities lead to higher motivation and willingness to adopt digital technology and create supportive conditions for funding external motivation [43, 46]. Improved medical care and individualised therapy are the focus of actors in healthcare. As Alfes et al. proved in their work, the opportunity to contribute to this mission and motivation through social interaction is highly relevant [44]. To perform in digital workplaces, new competencies and knowledge need to be developed, which occurs to be affected by the opportunity for active participation, autonomous decision-making and supportive conditions, like social exchange and early adopters as role models.

5. Conclusion

To summarise the results of this research, we derive two propositions. From the focus group discussions, we assume that stakeholders' opportunities to participate in discussions and create a shared vision with collaboration towards a subsequent digital implementation are prerequisites. Second, the motivation of those involved is essential for successful transformation, depending on the professional context.

The participants strongly emphasised their autonomous decision-making and fostering framework conditions as motivating factors. The benefits of digital processes must be clear to invest time in learning. Healthcare professions are patient-orientated, with an improved quality of treatment as a central goal. Time is a scarce resource for medical doctors and other actors in healthcare, so investing in competence development and knowledge about new technology must result in significant added value for the patients.

This research demonstrates the applicability of the AMO model within the context of digital transformation in healthcare, linking it to a new dynamic capabilities theory. The opportunity to participate in autonomous decision-making and motivation emerge as fundamental factors influencing dynamic capabilities in adapting to the latest technology. The results provide new insights into individual motivation and willingness to adopt digital innovation as part of individual mindsets and behaviour in changing working environments.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 3: 61-74, 2025
DOI: 10.55214/25768484.v9i3.5114

These findings significantly contribute to the theory of dynamic capabilities, helping us better understand the mechanisms of sustained learning framed with the AMO theory to acquire competitive advantages and build resilience in digital change.

The study also makes a practical contribution for legislators (digital agencies), managers, and associations to develop targeted programmes to build relevant knowledge and competence for new work tasks and an openness to additional and further learning. This mindset and attitude of individuals enable the digitalisation of processes and optimise workflows using the latest technologies.

The contribution to society is to promote digitalisation by involving medical doctors and other health professionals as an essential key group with a strong relationship of trust and influence on patients. By motivating providers of health services, learning and the adoption of innovative technology are supported, processes can be optimised, and the time freed up by reducing administrative tasks can be used to treat patients to a high standard.

We want to mention the following limitations of the study. The results of the focus group discussions are restricted by the number of participants, limited to medical doctors and health insurance company employees in the local area in Germany. The results may be influenced by the fact that only people open to non-specialist and technology-related topics participated in the focus group. These two professions were chosen because they represent different healthcare stakeholders, providers, and payers of health services. Medical doctors are vital players with a strong relationship of trust to patients [47]. Health insurance companies can impact the costs and quality of health services negotiated with providers [48]. As another limitation, we want to mentioned that the findings are based on a limited sample from a specific region in Germany, which may restrict their applicability to other healthcare systems. The convenience sampling method might introduce selection bias, as participants were likely more open to digital innovation than the general healthcare workforce. While focus groups provide rich qualitative data, some dominant voices might overshadow others.

Further research should validate our postulated results, adding qualitative research with supplementary interviews. The findings from this study and the developed conceptual model could be triangulated with other qualitative methods, such as in-depth interviews. The robustness of the conclusions should be tested quantitatively. To this end, qualitative and quantitative research should be extended to other groups and companies in the healthcare sector or other regions to broaden the focus.

Funding:
This research was funded by Internal and External consolidation of the University of Latvia No. 5.2.1.1.i.0/2/24/I/CFLA/007, grant number Nr. 71-20/386

Institutional Review Board Statement:
Not applicable.

Transparency:
The authors confirm that the manuscript is an honest, accurate and transparent account of the study that no vital features of the study have been omitted and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Competing Interests:
The authors declare that they have no competing interests.

Authors' Contributions:
Conceptualisation, methodology S.S.; data collection S.S. and J.F.; data analysis, S.S., J.F. and I.L.; original draft preparation S.S. and J.F.; review and editing S.S., I.L., J.F.; supervision I.L.
All authors have read and agreed to the published version of the manuscript.

References
[1] Federal Ministry for Economic Affairs and Energy (BMWi), "Digitalisation promises opportunities to reduce costs by changing and optimising processes," Retrieved: www.bmwi.de, 2021.
[2] N. Bertram, F. Püschner, A. S. O. Gonçalves, S. Binder, and V. E. Amelung, "Introduction of an electronic patient record in Germany against the background of international experience," in Krankenhaus-Report 2019: Das Digitale Krankenhaus. Berlin, Heidelberg: Springer, 2019, pp. 3-16.
[3] M. Baron von Osthoff, U. Watzlaw-Schmidt, T. Lehmann, and J. Hübner, "Patient group-specific data sovereignty needs and acceptance of the electronic patient record," *Bundesgesundheitsblatt-Gesundheitsforschung-Gesundheitsschutz*, vol. 65, no. 11, pp. 1197-1203, 2022. https://doi.org/10.1007/s00103-022-03589-w
[4] L. Woods, P. Martin, J. Khor, L. Guthrie, and C. Sullivan, "The right care in the right place: A scoping review of digital health education and training for rural healthcare workers," *BMC Health Services Research*, vol. 24, no. 1, p. 1011, 2024.
[5] J. Dugstad, T. Eide, E. R. Nilsen, and H. Eide, "Towards successful digital transformation through co-creation: A longitudinal study of a four-year implementation of digital monitoring technology in residential care for persons with dementia," *BMC Health Services Research*, vol. 19, pp. 1-17, 2019. https://doi.org/10.1186/s12913-019-4182-9
[6] M. Augier and D. J. Teece, "Understanding complex organization: The role of know-how, internal structure, and human behavior in the evolution of capabilities," *Industrial and Corporate Change*, vol. 15, no. 2, pp. 395-416, 2006. https://doi.org/10.1093/icc/dtl010
[7] D. J. Teece, G. Pisano, and A. Shuen, "Dynamic capabilities and strategic management," *Strategic Management Journal*, vol. 18, no. 7, pp. 509-533, 1997. https://doi.org/10.1002/(SICI)1097-0266(199710)18:7<509::AID-SMJ882>3.0.CO;2-Z
[8] M. Peteraf, *Resource-based theories. In: The Palgrave Encyclopedia of Strategic Management*. London: Palgrave Macmillan UK, 2018.
[9] O. Kokshagina, "Managing shifts to value-based healthcare and value digitalization as a multi-level dynamic capability development process," *Technological Forecasting and Social Change*, vol. 172, p. 121072, 2021. https://doi.org/10.1016/j.techfore.2021.121072
[10] M. Dabić, J. F. Maley, J. Švarc, and J. Poček, "Future of digital work: Challenges for sustainable human resources management," *Journal of Innovation & Knowledge*, vol. 8, no. 2, p. 100353, 2023. https://doi.org/10.1016/j.jik.2022.100353
[11] A. L. Pablo, T. Reay, J. R. Dewald, and A. L. Casebeer, "Identifying, enabling and managing dynamic capabilities in the public sector," *Journal of Management Studies*, vol. 44, no. 5, pp. 687-708, 2007. https://doi.org/10.1111/j.1467-6486.2007.00704.x
[12] J. T. Mahoney, "The management of resources and the resource of management," *Journal of Business Research*, vol. 33, no. 2, pp. 91-101, 1995. https://doi.org/10.1016/0148-2963(94)00028-I
[13] R. Loureiro, J. J. Ferreira, and J. Simões, "Understanding healthcare sector organizations from a dynamic capabilities perspective," *European Journal of Innovation Management*, vol. 26, no. 2, pp. 588-614, 2023. https://doi.org/10.1108/EJIM-11-2022-0579
[14] X. Jia and Y. Hou, "Architecting the future: exploring the synergy of AI-driven sustainable HRM, conscientiousness, and employee engagement," *Discover Sustainability*, vol. 5, no. 1, p. 30, 2024. https://doi.org/10.1007/s43621-024-00087-2
[15] C. Goldin and L. F. Katz, *The race between education and technology*. Cambridge, MA: Harvard University Press, 2009.
[16] K. A. Ramori, E. A. Cudney, C. C. Elrod, and J. Antony, "Lean business models in healthcare: A systematic review," *Total Quality Management & Business Excellence*, vol. 32, no. 5-6, pp. 558-573, 2021. https://doi.org/10.1080/14783363.2020.1838525
[17] R. Agarwal, G. Gao, C. DesRoches, and A. K. Jha, "Research commentary—The digital transformation of healthcare: Current status and the road ahead," *Information Systems Research*, vol. 21, no. 4, pp. 796-809, 2010. https://doi.org/10.1287/isre.1100.0327
[18] S. Kraus, F. Schiavone, A. Pluzhnikova, and A. C. Invernizzi, "Digital transformation in healthcare: Analyzing the current state-of-research," *Journal of Business Research*, vol. 123, pp. 557-567, 2021. https://doi.org/10.1016/j.jbusres.2020.09.056
[19] S. Iyanna, P. Kaur, P. Ractham, S. Talwar, and A. N. Islam, "Digital transformation of healthcare sector. What is impeding adoption and continued usage of technology-driven innovations by end-users?," *Journal of Business Research*, vol. 153, pp. 150-161, 2022. https://doi.org/10.1016/j.jbusres.2022.05.029
[20] C. S. Dweck and D. S. Yeager, "Mindsets: A view from two eras," *Perspectives on Psychological Science*, vol. 14, no. 3, pp. 481-496, 2019. https://doi.org/10.1177/1745691619863581

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 3: 61-74, 2025
DOI: 10.55214/25768484.v9i3.5114

[21] D. Ellström, J. Holtström, E. Berg, and C. Josefsson, "Dynamic capabilities for digital transformation," *Journal of Strategy and Management*, vol. 15, no. 2, pp. 272-286, 2021. https://doi.org/10.1108/JSMA-10-2021-0313

[22] K. S. Warner and M. Wäger, "Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal," *Long Range Planning*, vol. 52, no. 3, pp. 326-349, 2019. https://doi.org/10.1016/j.lrp.2018.12.002

[23] M. Augier and D. J. Teece, "Dynamic capabilities and the role of managers in business strategy and economic performance," *Organization Science*, vol. 20, no. 2, pp. 410-421, 2009. https://doi.org/10.1287/orsc.1080.0419

[24] D. J. Teece, "Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance," *Strategic Management Journal*, vol. 28, no. 13, pp. 1319-1350, 2007. https://doi.org/10.1002/smj.640

[25] K. Chirumalla, "Building digitally-enabled process innovation in the process industries: A dynamic capabilities approach," *Technovation*, vol. 105, p. 102256, 2021. https://doi.org/10.1016/j.technovation.2021.102256

[26] R. Rosenbäck and A. Svensson, "Management learning in public healthcare during pandemics," *The Learning Organization*, vol. 31, no. 3, pp. 394-410, 2024. https://doi.org/10.1108/TLO-12-2023-0205

[27] C. Möller and A. Popa, "Challenge of the future: The German healthcare system in transition," *Digitale Dienstleistungsinnovationen: Smart Services Agil und Kundenorientiert Entwickeln*, pp. 511-522, 2019. https://doi.org/10.1007/978-3-662-58656-7_34.

[28] G. Mehralian, S. Sheikhi, C. Zatzick, and J. Babapour, "The dynamic capability view in exploring the relationship between high-performance work systems and innovation performance," *The International Journal of Human Resource Management*, vol. 34, no. 18, pp. 3555-3584, 2023. https://doi.org/10.1080/09585192.2021.1910326

[29] E. Appelbaum, *Manufacturing advantage: Why high-performance work systems pay off*. Washington, D.C: Economic Policy Institute, 2000.

[30] K. Y. Kim, S. Pathak, and S. Werner, "When do international human capital enhancing practices benefit the bottom line? An ability, motivation, and opportunity perspective," *Journal of International Business Studies*, vol. 46, pp. 784-805, 2015. https://doi.org/10.1057/jibs.2015.11

[31] J. A. Marin-Garcia and J. M. Tomas, "Deconstructing AMO framework: A systematic review," *Intangible Capital*, vol. 12, no. 4, pp. 1040-1087, 2016. https://doi.org/10.3926/ic.953

[32] A. Kellner, K. Cafferkey, and K. Townsend, *21. Ability, Motivation and Opportunity theory: A formula for employee performance?* (Elgar introduction to theories of human resources and employment relations). Edward Elgar Publishing. https://doi.org/10.4337/9781786439017.00029, 2019, p. 311.

[33] S. Wilkinson, "Focus group methodology: A review," *International Journal of Social Research Methodology*, vol. 1, no. 3, pp. 181-203, 1998. https://doi.org/10.1080/13645579909573704

[34] Q. Lood, E. Carlström, C. Klinga, and E. Barenfeld, "A collaborative endeavour to integrate leadership and person-centred ethics: a focus group study on experiences from developing and realising an educational programme to support the transition towards person-centred care," *BMC Health Services Research*, vol. 24, no. 1, p. 395, 2024. https://doi.org/10.1186/s12913-024-09814-2

[35] L. Damen, L. Van Tuyl, B. Knottnerus, and J. De Jong, "General practitioners' perspectives on relocating care: A Dutch interview study," *BMC Primary Care*, vol. 25, no. 1, p. 186, 2024. https://doi.org/10.1186/s12875-024-02282-w

[36] R. Busse, M. Blümel, F. Knieps, and T. Bärnighausen, "Statutory health insurance in Germany: a health system shaped by 135 years of solidarity, self-governance, and competition," *The Lancet*, vol. 390, no. 10097, pp. 882-897, 2017. https://doi.org/10.1016/S0140-6736(17)31280-1

[37] V. Renjith, R. Yesodharan, J. A. Noronha, E. Ladd, and A. George, "Qualitative methods in health care research," *International Journal of Preventive Medicine*, vol. 12, no. 1, p. 20, 2021. https://doi.org/10.4103/ijpm.IJPM_354_20

[38] F. Heimerl, S. Lohmann, S. Lange, and T. Ertl, "Word cloud explorer: Text analytics based on word clouds," in *2014 47th Hawaii International Conference on System Sciences. IEEE*, 2014: IEEE, pp. 1833-1842.

[39] Z. Almutawa, N. Muenjohn, and J. Zhang, "The effect of human resource management system on employees' commitment: The mediating role of the AMO model," *The Journal of Developing Areas*, vol. 50, no. 6, pp. 17-29, 2016. https://doi.org/10.1353/jda.2016.0018

[40] I. D. Apriliyanti, "A Problem Waits: Is it True that Resource-Based Theory (RBT) is an Empty Tautology?," *Policy & Governance Review*, vol. 6, no. 2, pp. 107-122, 2022. https://doi.org/10.29300/pgr.v6i1.6016

[41] M. D. Ružić, "Direct and indirect contribution of HRM practice to hotel company performance," *International Journal of Hospitality Management*, vol. 49, pp. 56-65, 2015. https://doi.org/10.1016/j.ijhm.2015.05.001

[42] D. B. Minbaeva, "Strategic HRM in building micro-foundations of organizational knowledge-based performance," *Human Resource Management Review*, vol. 23, no. 4, pp. 378-390, 2013. https://doi.org/10.1016/j.hrmr.2012.09.003

[43] A. C. Bos-Nehles, M. J. Van Riemsdijk, and J. Kees Looise, "Employee perceptions of line management performance: Applying the AMO theory to explain the effectiveness of line managers' HRM implementation," *Human Resource Management*, vol. 52, no. 6, pp. 861-877, 2013. https://doi.org/10.1002/hrm.21544

[44] K. Alfes, B. Antunes, and A. D. Shantz, "The management of volunteers–what can human resources do? A review and research agenda," *The International Journal of Human Resource Management*, vol. 28, no. 1, pp. 62-97, 2017. https://doi.org/10.1080/09585192.2016.1161835

[45] J. Trullen, L. Stirpe, J. Bonache, and M. Valverde, "The HR department's contribution to line managers' effective implementation of HR practices," *Human Resource Management Journal*, vol. 26, no. 4, pp. 449-470, 2016. https://doi.org/10.1111/1748-8583.12097

[46] N. T. Pham, Z. Tučková, and Q. P. T. Phan, "Greening human resource management and employee commitment toward the environment: An interaction model," *Journal of Business Economics and Management*, vol. 20, no. 3, pp. 446-465, 2019. https://doi.org/10.3846/jbem.2019.10403

[47] G. L. Jones, Z. Peter, K.-A. Rutter, and A. Somauroo, *Promoting an overdue digital transformation in healthcare*. London: McKinsey & Company, 2019.

[48] S. Thomson, R. Busse, L. Crivelli, W. Van de Ven, and C. Van de Voorde, "Statutory health insurance competition in Europe: A four-country comparison," *Health Policy*, vol. 109, no. 3, pp. 209-225, 2013. https://doi.org/10.1016/j.healthpol.2012.11.017

Appendix A.

Key questions in the focus group.

1. Expertise

Which digital skills are important for the future of healthcare?
Why do you think new competences need to be developed?
How should the knowledge structure be organised?

2. Knowledge transfer and networking

What knowledge is important, how can networking take place successfully?
What is the significance of networks and networking?
How can the transfer between research and practice be successful?

3. Role of sustainable learning: openness to new things, trial and error and implementation

How can sustainable learning concepts be established in the digital transformation?
Which access routes are important?
How can a continuous learning process be created?

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 3: 61-74, 2025
DOI: 10.55214/25768484.v9i3.5114