DOCTORAL (PHD) THESIS

INCZÉDY KRISZTINA GÖDÖLLŐ 2025



Hungarian University of Agricultural and Life Sciences

Management and organisational factors influencing the success of SAP projects

DOI: 10.54598/005730

INCZÉDY KRISZTINA GÖDÖLLŐ 2025

name:	Doctoral School of Economics and Regional Sciences				
discipline:	Management and Organizational Sciences				
head of:	Dr. Zoltán Bujdosó professor Hungarian University of Agriculture and Life Sciences Institute for Rural Development and Sustainable Economy				
Theme leader:	Dr. habil. Tímea Juhász Associate Professor University of Sopron Alexandre Lámfalussy Faculty of Economics				
Approval by the Head of School Approval of the Supervisor					

The doctoral school

Table of contents

1.	WORK HISTORY, OBJECTIVES	1
1.1	Work history	1
1.2	Objectives	3
2.	MATERIAL AND METHODS	5
2.1	ERP system	5
2.2	Macro level of the model - country culture	6
2.3 kno	Organisational level - culture, project methods, leadership and wledge management	7
2.4 man	Individual level - project management, user skills, knowledge nagement	8
2.5	Methods	9
3.	RESULTS AND DISCUSSION	10
3.1	The macroeconomic level - country culture	10
3.2 man	Organisational level - culture, leadership, project method, knowledg	
3.3	Individual level hypotheses - Project manager, user, knowledge	15
4.	CONCLUSIONS AND PROPOSALS	17
5.	NEW SCIENTIFIC RESULTS	21
6.	PUBLICATIONS RELATED TO THE SUBJECT OF THE THESIS	22

1. WORK HISTORY, OBJECTIVES

1.1 Work history

The success of SAP implementation has been examined in many ways over the past years. Dezdar and Ainin have investigated the relationship between project management, team composition and the success of ERP implementation (Dezdar & Ainin, 2011).

The idea for my PhD thesis came from the fact that I have been working in the SAP world for more than 15 years, participating in projects, managing SAP projects, all over the world. I have worked in several countries and continents, first as an SAP consultant, then as a project manager.

In my thesis, following the literature review, I will examine the following hypotheses using qualitative and quantitative methods. The hypotheses will be presented and analysed in relation to the above mentioned levels of inquiry, which I have summarised in Table 1:

Table 1: Hypotheses

Hypothesis number	Levels	Area tested	Hypothesis
1.	Macro level	Culture	In the countries I have studied (Hungary, France, United States), SAP has a different sales product portfolio and the national culture (based on Hofstede's cultural typology) may influence whether the introduction of an SAP product will be successful.

2.	Organisational level	Organisational culture	In the sample I examined, a corporate culture reinforced by knowledge management elements and trust are important for an SAP implementation.
3.	Organisational level	Leadership	A positive supportive attitude from management is essential for a successful SAP implementation.
4.	Organisational level	Project management method	The project management method chosen during the SAP implementation is independent of the organisation and the nature of the task to be carried out, and the client can choose any of the three approaches on the market (hybrid, agile, waterfall) without any prior knowledge of the conditions.
5.	Organisational level	Knowledge	SAP and knowledge management can only work effectively in synergy, both during the implementation of SAP and during the subsequent operation of the system.
6.	Individual level	Project Manager	Among the skills of project managers, experience and social interaction skills are the most important determinants of a successful SAP implementation.
7.	Individual level	User	According to the users surveyed, hard skills such as language skills and basic computer skills are important for users, while soft skills such as efficiency and responsibility are essential for running a successful SAP system, and there is no difference in opinion in this respect among respondents based on work experience and gender.
8.	Individual level	Knowledge	The hard and soft skill characteristics of a user are significantly related to his/her ability to use successfully SAP, which is a prerequisite for a successful implementation.

Source: own editing

1.2 Objectives

Further in this paper I will present my model of SAP project success, which I summarise in the figure below:

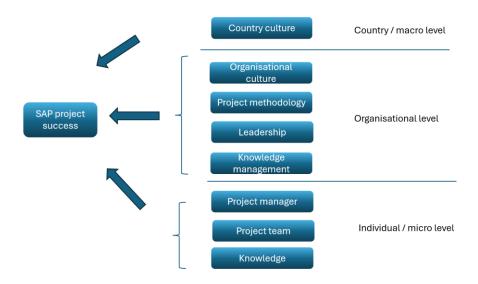


Figure 1: target structure

Source: own editing

In order to achieve my targets, I have followed the following research structure, and I have gone through the following phases in the preparation of this thesis:

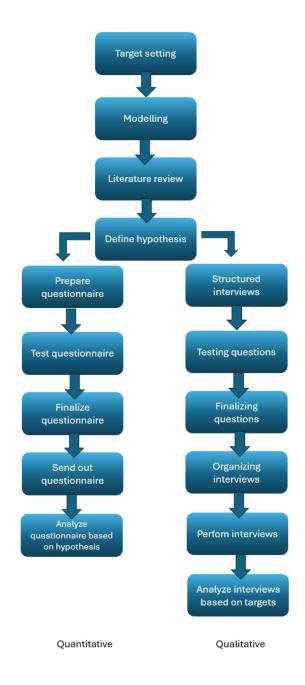


Figure 2: Research process

Source: own editing

2. MATERIAL AND METHODS

2.1 ERP system

First, it is important to note that ERP (Enterprise Resource Planning) is a term originally coined in 1990 by the Gartner Group to describe the next generation of material requirements planning (MRP) software. The goal back then was to integrate all aspects of the business under a single software application suite (Abdullah, 2017)

The history of (integrated) system provision goes back to the first industrial revolution, when organisational structures appeared. At that time, production was at the centre, so the first area where any 'system' appeared was manufacturing. The first factories were simple, and so was the scheduling of production. (Hermann, 2024) SAP was founded in 1972 and is still a leader in ERPs. (Juhász & Inczédy, 2025)

Table 2: History of ERP from the 1960s to the 2020s

System	Years	Target	restrictions	
Inventory	1960s	Identifying stocking needs	Large number of	
management		Stock replenishment	technical staff needed to	
and control		techniques, monitoring batch	support computers	
		usage		
MRP,	1970s	Emphasising the integration	The system was difficult	
hardware and		and planning of production	to operate	
software		Using the software application	Costly to implement	
development		to schedule production		
		processes		
MRP II.	1980s	They focus on replacing stand-	Lack of planning and	
		alone systems with	scheduling functions	
		manufacturing strategies		
		Updating stock and accounting		
		information		

ERP	1990s	Gartner Group Enterprise	Implementation can
		Resource Planning (ERP)	require significant
		Other functions such as	changes to the company
		marketing, finance, human	and its processes.
		resources	
ERP II	2000s	Real-time data transfer	
		between business areas	
Cloud ERP	After	Moving to cloud solutions,	Cybersecurity
	2010	Real-time data available	Limited customisability
		anywhere, anytime	Inflexibility

Source: own adaptation (based on Nijher, 2014, p. 6 and Al-Amin et.al., 2023)

2.2 Macro level of the model - country culture

According to the dictionary of synonyms, culture has synonyms for education and culture (Szinonimaszotar, 2024).

Although there are many frameworks for understanding cultural differences, one of the strongest is the Hofstede model, as Greet Hofstede was a pioneer who conducted intensive research on cultural diversity and differences. Hofstede's cultural dimensions are one of the most popular cultural theories used in the social sciences (Gerlach & Eriksson, 2021). Due to this reason I have analysed the selected countries along his dimensions.

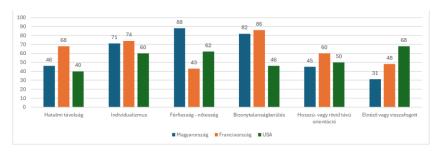


Figure 3: Hofstede typology for the three countries studied Source: own editing, based on The Culture Factor website. https://www.theculturefactor.com/country-comparison-

tool?countries=france%2Chungary%2Cunited+states; Date of search: 23.12.2024.

2.3 Organisational level - culture, project methods, leadership and knowledge management

First, I will deal with organisational culture at the organisational level, which is nothing else than the set of values, beliefs, attitudes, systems and rules that outline and influence the behaviour of employees within an organisation (Wong, 2023). According to the PMI website, a project is defined as follows: a project is a temporary undertaking aimed at creating a unique product, service or outcome. More specifically, a project is a structured set of tasks, activities and deliverables that are carefully executed to achieve a desired outcome. (PMI, 2024) A special case of this is the SAP implementation project. SAP has developed its own method for the waterfall approach that is called ASAP (Accelerated SAP).

As next I look at leadership at the organisational level, which is "the work of managing human activity. Leadership is a purposeful activity whose content is applied to a group of people. Leadership is a social role that has emerged and evolved in the context of the social division of labour." (HRportal, n.a.a, p. 1.)

There are many different styles that can blend well together. Every company needs to choose the right leader for the company's life cycle to make it successful. However, it is also important to consider both national and company culture when choosing the right leadership style.

Finally, I will turn to knowledge management, within which knowledge acquisition and sharing is a critical step "to fill in the knowledge gaps in order to achieve higher levels of organisational performance." (Bencsik et.al., 2021, p.47.) In my analysis I used the Probst model.

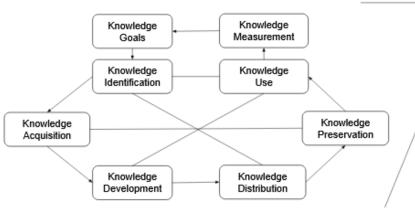


Figure 4 Probst model

Source: Own editing based on: Andrea Bencsik (2015) A tudásmenedzsment létjogosultsága. Tudásmenedzsment. 26. Műhely. p. 5.

I built and analysed the link between the project phases and the knowledge management phases.

2.4 Individual level - project management, user skills, knowledge management

According to the HR Portal, a skill is "a linear algorithm activity at the level of maximum proficiency, i.e. this element of the activity is automated, it enters automatically in the process of action instead of consciously recalled. Previously, skill was defined as the automated component of an activity" (HRportal, n.a.b) Skills can be divided into two groups: hard skills and soft skills.

Perhaps the most important key player in the success of an SAP project is the SAP project manager. This is the person who is entrusted with leading a project to success with a team, on time and within budget. In addition to hard skills, soft skills are just as important in the life of a successful project manager. Juhász and Inczédy (2024) explain this in a paper.

The success of any project depends crucially on selecting team members with the right knowledge and skills (Mahdavian et.al., 2016).

The success of an SAP project depends not only on the key users, but also on the end users. How they are involved in the project and how SAP knowledge is transferred is very important. They need to have the right hard and soft skills.

A key user is very important in the life of a company, even if they don't think so themselves. Most often they see SAP projects as just extra work, unpaid overtime. According to the Probst cycle, the tasks of users in an SAP project can be defined by knowledge stages (Inczédy & Juhász, 2024)

2.5 Methods

I used a mixed methods in all cases. Table 3 summarises the research I have carried out on each topic.

Table 3: Methods used to examine the themes

Levels	Area tested	Literatur e Review	Qualitati ve, semi- structure d interview	Quant i- tative, 250	Quanti- tative, 106	Previo us statist ics	Lin ked- In
Macro level	Culture	X	X			X	
Organisationa 1 level	Organisational culture		X		X		
Organisationa 1 level	Leader-ship		X		X		
Organisationa 1 level	Project Management method	X	X				
Organisationa 1 level	Knowledge		X		X		
Individual level	Project Manager		X		X		X
Individual level	User			X			

Individual	Knowledge		X		
level					

Source: own editing

3. RESULTS AND DISCUSSION

3.1 The macroeconomic level - country culture

Hypothesis 1: In the countries I have studied (Hungary, France, United States), SAP has a different sales product portfolio and the national culture of the countries (based on Hofstede's cultural typology) may influence whether the introduction of an SAP product will be successful.

Table 4: Hofstede dimensions for the countries studied

Dimensions	Hungary	France	USA
Power distance	46	68	40
Individualism	71	74	60
Masculinity - femininity	88	43	62
Uncertainty avoidance	82	86	46
Long-term or short-term orientation	45	60	50
Indulgence or restraint	31	48	68

Source: own edits, The Culture Factor Group website, date of search: 23.12.2024; https://www.theculturefactor.com/country-comparison-tool?countries=france%2Chungary%2Cunited+states

To further prove my hypothesis, I will use the semi-structured interviews I conducted. I conducted a total of 18 interviews in the countries: 9 in Hungary, 5 in France and 4 in the USA.

On Hungarian culture, project managers explained that it is a masculine culture, with men in leadership positions. In addition, it is individualistic, with workers wanting to be themselves. In France, they said that people are basically proactive, but they like to talk a lot, discuss everything very carefully and think about it

before making a decision. Inczédy (2024) also wrote a study on this. They are risk averse, they find it difficult to make a decision. The USA was reported to have a direct and open communication style. Americans typically express their opinions clearly and unambiguously, even on difficult topics.

The interviews showed that the culture of a country does have an impact on how successful a project will or can be. It is important to take into account the social customs, to know the background and to adapt to the culture in order to successfully deliver the SAP project.

As a final step in testing the hypothesis, I examined statistics released by SAP and other companies. The statistics show that the success of both ERPs, and SAP within them, is unbroken, although it is also apparent that the emphasis in ERP implementations has been increasingly on cloud-based systems in recent times. SAP has a global mindset, but the success of the project seems to be influenced by country culture, and based on these results I can only partially accept my first hypothesis.

3.2 Organisational level - culture, leadership, project method, knowledge management

Hypothesis 2: In the sample I examined, corporate culture and trust, reinforced by knowledge management elements, are important for an SAP implementation. Based on the semi-structured interviews, it is very important in each of the countries studied that a project manager adapts to the culture of the company, otherwise the project will not be successful. Another important message from the qualitative study was that the organisational culture has an impact on the success of the implementation

To further prove the hypothesis, I conducted quantitative research. I tested the variables on a Likert-scale, where 1 was no response at all and 5 was a full response.

The most important hard elements were: adequate capital (M: 4.51), adequate hardware (M: 4.44) and advanced IT support (M: 4.44). The small value of the standard deviations indicated that there was no significant difference of opinion among the respondents. When looking at soft factors, supportive management attitude (M: 4.35), adequate training and development structure (M: 4.34), and predictability (M: 4.29) received the highest mean scores. To continue the analysis, I grouped the variables into factors. In the factorisation, the KMO Barlett's test score was: 0.839, while the Chi-square test score was: 942.142, df: 136 sig.:0.000. The explained variance ratio: 72.58%, which was above the 60% limit. Factors were rotated using the Varimax method. I further analysed how homogeneous groups can be generated from the given sample using the factors. I used the non-hierarchical cluster analysis, i.e. the K-means procedure, to construct the groups. Analysing the results, it could be seen that, according to the respondents' opinion, several cultural elements are essential for the successful implementation of an SAP project.

It can therefore be said that I can accept my hypothesis, as both my quantitative and qualitative research has confirmed that culture, especially infused with knowledge management elements and trust, is a very important success factor in the implementation of an SAP project.

Hypothesis 3: A positive supportive attitude from management is absolutely necessary for the successful implementation of SAP.

I also used a mixed method to prove my hypothesis.

On one hand, in the qualitative research, in semi-structured interviews, project managers believe that the leadership style of the organisational leaders themselves influences the feasibility of a project.

In the quantitative research, it was found that leadership is influenced by the leader-subordinate relationship, i.e. how supportive the leader or even the subordinate is towards each other. I found that the stronger the supportive attitude on the part of the managers, the stronger the flow of information, the need for management-level control, quality management and the supportive attitude of subordinates within the organisation.

I performed a partial correlation to analyse how the correlation values between the items change when we remove the attitude of the supporter. As a result, I obtained that if we remove the variable of supportive subordinate attitude, the correlation values between items decrease, i.e., supportive subordinate attitude has an additive effect on the leadership factors.

Overall, without proper leadership, an implementation project cannot be successful, so I accept my hypothesis in light of the results.

Hypothesis 4: The project management method chosen during the SAP implementation is independent of the organisation and the nature of the task to be performed, the client can choose any of the three approaches (hybrid, agile, waterfall) available on the market without any prior knowledge of the conditions I also used a mixed method to prove my hypothesis.

In qualitative research, as a result of the semi-structured interviews, it can be concluded that there is no single method that can be applied to all organisations and problems, but that the choice of these methods will always be determined by the characteristics of the company and the content and structure of the issue to be addressed.

The literature review allows a number of conclusions to be drawn on this issue. In the table below, I evaluate and characterise the methodologies in operation.

Table 5: Specification of methodologies

	Waterfall	Agile	Hybrid
Definition	The basic principle of the	An agile project	At a high level, it is
	waterfall model is that it	mostly plans in	conceptually
	divides the activities to be	sprints, i.e. 2-4 week	waterfall-based, but
	carried out in a project	iterations, using so-	uses an agile
	into phases, where at the	called ceremonies	method for software
	end of each phase the		setup and
	project team reviews the		development.
	period and then closes it.		
Possible	It can be used where we	It is useful where we	ERP system
applications	know the scope and can	cannot foresee the	implementations
	foresee in detail what the	scope in detail, or	where the client
	outcome of the project	where the	wants early results.
	will be. We know, or the	organisation operates	
	client/client knows,	in a rapidly changing	
	exactly what they want, so	environment.	
	their satisfaction is		
	predictable.		

Source: own editing based on Tristancho, 2024, Szinergia 2024, Szinergia 2, 2024, Szinergia 3, 2024, Atlassian, 2024

Currently, no official statistics are available on which method was used, by how many companies and for which SAP projects.

It is the nature of the SAP project (determined by organisational characteristics, task content and structure) that will influence the method you should choose for your project.

Based on the above, I cannot accept my hypothesis, because the project management method chosen during SAP implementation is not at all independent of the organisation and the nature of the task to be implemented, the most appropriate of the three approaches (hybrid, agile, waterfall) operating in the market cannot be successfully determined without a prior assessment of the organisation and the task to be implemented.

Hypothesis 5: SAP and knowledge management can only work effectively in synergy, both during the implementation of SAP and during the subsequent operation of the system.

I used a mixed method to prove my hypothesis.

In the course of my literature analysis, I summarised the Probst model of the tasks of the project manager and the user.

In my qualitative research, the project managers highlighted the importance of knowledge management during the project, thinking both about education, but not forgetting the knowledge transfer at the end of the project.

The quantitative research results also prove that project management and knowledge management should work synergistically together both during the project and during the operation of the system, i.e. I accept my hypothesis.

3.3 Individual level hypotheses - Project manager, user, knowledge

Hypothesis 6: Among the skills of project managers, experience and social interaction skills are the most important determinants of successful SAP implementation.

I used a mixed method to prove my hypothesis, which allowed me to draw the following conclusions:

- on LinkedIn, most of the job advertisements for project managers included work experience,
- project managers said that work experience is the most important requirement for successful SAP projects,

- and social interaction skills were rated very highly in terms of importance by respondents, and the majority of respondents felt this way, with no disagreement based on gender and previous SAP use.

Based on these results, I accept my hypothesis.

Hypothesis 7: The surveyed users perceive that, among the hard skills, language skills and basic computer skills are important, and among the soft skills, efficiency and responsibility are essential for running a successful SAP system, and there are no differences in this respect based on work experience and gender. To prove this hypothesis, I used quantitative research.

My hypothesis is that, based on the perception of the users surveyed, language skills and basic computer skills are important hard skills for users, and efficiency and responsibility are essential soft skills for running a successful SAP system, and there is no difference in opinion between respondents in this respect based on work experience and gender. Having been able to prove this finding through the above studies, I accept my hypothesis.

Hypothesis 8: The hard and soft skill attributes of a user are significantly related to his/her ability to successfully use the SAP system, which is a prerequisite for a successful implementation.

The result of the quantitative research was that soft skills correlate with knowledge factors in more operational parts than hard skills

- Process operations within SAP are linked with internal control and emotional intelligence.
- Managing a business partner also correlates positively with emotional intelligence and self-actualisation.
- Basic operations are positively correlated with ethical thinking and related to emotional intelligence.

Based on the results of the analysis, we can say that the work in SAP system is influenced by the existing soft and hard skills of the users.

I can accept the hypothesis based on the study that: a user's hard and soft skill attributes are significantly related to his/her ability to successfully use SAP, which is a prerequisite for a successful implementation.

4. CONCLUSIONS AND PROPOSALS

The doctoral thesis examined the success of the SAP project at three different levels. First, I conducted a literature review. I presented a number of relevant literatures on the respective topics and then turned to statistical analysis.

Table 6: Hypothesis - Thesis table

Area	Hypothesis	Decision	Thesis
tested			
Macro	In the countries I have	I can	In the countries I have studied
culture	studied (Hungary, France,	partly	(Hungary, France, United
	United States), SAP has a	accept	States) SAP does not show a
	different sales product		different sales product portfolio,
	portfolio and the national		but the national culture of the
	culture (based on Hofstede's		countries (based on Hofstede's
	cultural typology) may		cultural typology) may
	influence whether the		influence whether the
	introduction of an SAP		introduction of an SAP product
	product will be successful.		will be successful.
Organisati	In the sample I examined, a	Accept	In the sample I examined, a
onal	corporate culture reinforced		corporate culture reinforced by
culture	by knowledge management		knowledge management
	elements and trust are		elements and trust are important
	important for an SAP		for an SAP implementation.
	implementation.		
Leadership	A positive supportive	Accept	A positive supportive attitude
	attitude from management is		from management is essential
	essential for a successful		for a successful SAP
	SAP implementation.		implementation.

Project	The project management	I cannot	The project management
manageme	method chosen during the	accept	method chosen during the SAP
nt method	SAP implementation is	иссері	implementation depends on the
nt method	independent of the		organisation and the nature of
	organisation and the nature		the task to be performed, and
	of the task to be carried out,		the client cannot choose any of
	and the client can choose		the three approaches on the
	any of the three approaches		market (hybrid, agile, waterfall)
	on the market (hybrid, agile,		without knowing all the
	waterfall) without any prior		preconditions.
	knowledge of the conditions.		preconditions.
Knowledg	SAP and knowledge	Accept	SAP and knowledge
e	management can only work	Ассері	management can only work
	effectively in synergy, both		effectively in synergy, both
	during the implementation		during the implementation of
	of SAP and during the		SAP and during the subsequent
	subsequent operation of the		operation of the system.
	subsequent operation of the system.		operation of the system.
Project	Among the skills of project	Accept	Among the skills of project
Manager	managers, experience and	Посерг	managers, experience and social
Widnager	social interaction skills are		interaction skills are the most
	the most important		important determinants of a
	determinants of a successful		successful SAP implementation.
	SAP implementation.		successful S/Ai Implementation.
User	According to the users	Accept	According to the users
0361	surveyed, hard skills such as	Посерг	surveyed, hard skills such as
	language skills and basic		language skills and basic
	computer skills are		computer skills are important
	important for users, while		for users, while soft skills such
	soft skills such as efficiency		as efficiency and responsibility
	and responsibility are		are essential for running a
	essential for running a		successful SAP system, and
	successful SAP system, and		there is no difference in opinion
	there is no difference in		in this respect between
	opinion in this respect		respondents based on work
	between respondents based		experience and gender.
	on work experience and		experience and gender.
	gender.		
Knowledg	A user's hard and soft skill	Accept	The hard and soft skill
e	attributes are significantly	Посері	characteristics of a user are
	related to his/her ability to		significantly related to his/her
	successfully use SAP, which		ability to successfully use SAP,
	successiuity use SAI, willell		donity to successfully use SAI,

is a prerequ	isite for a	which is a prerequisite for a	
successful imp	olementation.	successful implementation.	

Source: own editing

My doctoral thesis had limitations. First, I could not collect a random sample and the sample presented is not representative. It is true that I could not have intended to do so, given the very specific nature of the topic, and financial constraints prevented me from doing so.

In any case, I made every effort to include as many students as possible in the university where I conducted the quantitative research. On the other hand, I had difficulties finding interview subjects during my qualitative research, and several of my repeated requests for interviews were not answered by potential project managers. I sent many emails, phone calls and messages, and was surprised myself at how unhelpful project managers were. Reasons for rejection included: overwork, indifference to the subject and mistrust. Many were afraid of sharing information with me that could be traced back to the source (while I stressed anonymity), or simply did not want to share their knowledge on the subject.

My aim for the future is to involve as many countries as possible in the research. This is already underway. I am extending my qualitative research to China and Brazil, and interviews with project managers working in these two countries have already been conducted and are ongoing. I would also expand the sample for the quantitative research. One of the BGE's partner universities in Belgium (Thomas More University) offers a similar SAP course as the Hungarian institution, and the questionnaire surveyed in Hungary was also completed by Belgian students. It will be interesting to compare, both from a cultural and educational point of view, the responses of the two samples, which is also in progress.

Another area of investigation could be how different generations in a given workplace relate to the new direction of SAP, cloud services. I will explore the question in four age dimensions, which are:

- X: born between 1965 and 1980
- Y: born between 1981 and 1995
- Z: born between 1996-2010
- Alpha: born after 2010 (Generations, 2025).

SAP itself is "a technology that allows machines to demonstrate human-like reasoning and capabilities, such as autonomous decision-making. Through the assimilation of massive amounts of training data, AI can learn to recognise speech, spot probes and trends, proactively solve problems, and future circumstances and events." (SAP AI, 2025, https://www.sap.com/hungary/products/artificial-intelligence/what-is-artificial-intelligence.html, downloaded 06/01/2025) SAP itself has an AI copilot tool called Joule (SAP Joule, 2025)

In relation to AI, it may be worth exploring the role it will play in project management and project leadership. An area for investigation may be whether project managers will be needed in the future as organisations move to AI-based SAP implementations. PMI, the Project Management Institute, one of the world's largest organisations of project managers, is also addressing the issue of AI and providing a copilot solution called PMI Infinity (PMI, 2025).

Finally, it should not be overlooked that cloud-based solutions also raise a number of trust and security issues, which are rightly raised by the customers.

The topic of cybersecurity has been addressed in several articles that have addressed a number of security issues (Dalal, 2014) (Coursera Cloud Security, 2024) (Agarwal, et. al. 2023) (Shunami, 2020) Furthermore, several studies have been published on the topic that have expanded the problem of AI (Singh et. al., 2023) (Collins, 2021)

It should be noted that different countries have different approaches to the issue. Hungary is the most distrustful of the countries surveyed, while the United States of America has the fewest objections to cloud-based solutions. France comes in between

It would be worthwhile to conduct a study on this topic, to see how the introduction of SAP Cloud solutions is perceived in each country, whether security has been taken into account, and how trust in these solutions can be built and strengthened, even in the context of project management.

5. NEW SCIENTIFIC RESULTS

My research has led to the following new scientific findings.

- 1) On one hand, my research proved that country culture can influence the success of SAP project implementation. I was able to prove this through qualitative research. I conducted 18 semi-structured interviews with project managers who shared their own experiences with me.
- 2) However, by analysing statistics, I found no evidence that SAP treats different countries differently in terms of the product portfolio it offers them. It would be worthwhile to have statistics showing which products are more likely to be successful, in which countries and why, and in which they are not.
- 3) In the field of project management method, I have found that the method itself is not arbitrary for a project manager. It depends on the organisation and the task.
- 4) The relationship between the Probst-cycle and the project management phases was previously analysed by the CTI group, but they only focused on a specific SAP project for the SAP S/4 HANA migration (CTI, 2025). I extended the analysis to a general SAP implementation project, also for the SAP Activate method. I analysed the relationship between each phase of the method and the

knowledge management elements and provided a pragmatic relationship framework.

- 5) I have given particular attention to the issue of soft skills. I found that project managers need to have the right soft skills in addition to the hard skills. This was confirmed by both quantitative and qualitative research. In a project manager's life, the social interaction skills (such as communication skills) play a crucial role in making a project successful.
- 6) I focused on the end-users, who will be the users of the SAP system that will be implemented. During my literature search I could not find any publications on the hard or soft skills that an end user needs to have to be able to use SAP successfully. I have found that both the soft and hard skills of the user influence the extent to which he/she can successfully use the SAP system.
- 7) Finally, I would like to mention that I have outlined and systematised the knowledge elements required for an end user. I have examined how each element of the Probst cycle manifests itself at the user level.

6. PUBLICATIONS RELATED TO THE SUBJECT OF THE THESIS

Published:

INCZÉDY, K. & JUHÁSZ, T. (2024). A SAP bevezetési projektmenedzsment és a tudásmenedzsment rendszer elemeinek összefüggései, *Tudásmenedzsment*, 2024. december 6-17. DOI: https://doi.org/10.15170/TM.2024.25.2.2

JUHÁSZ, T. & INCZÉDY, K. (2024). A SAP rendszerek bevezetésének egyik sikerességi tényezője a soft skillek. *Magyar Minőség*, Vol. 12. 38-48.

JUHÁSZ T. & INCZÉDY K. (2025). Factors and reasons for the successful implementation of SAP systems. (Based on opinion of business students). *Acta Carlos Robertus*. Vol. 15. No.1.

JUHÁSZ, T. & INCZÉDY, K. & PFEIFFER, Á. (2025). A FOMO jelenség egy magyar gazdasági egyetemi hallgatók körében végzett kutatás alapján. *Tér-Gazdaság-Ember*, Vol.1.

INCZEDY, K. (2025). Project and knowledge management. *Sustainability and Resilience International Scientific Conference (SRISC)*, Gyöngyös, 2025. április 10-11. Konferencia kiadvány 27. (abstract)

JUHÁSZ T. & INCZÉDY K. (2025) What hard skills are required to be successful in SAP and why study SAP? The opinion of students at a Hungarian Business University. *Új Munkaügyi Szemle*. 2025 Vol. 3.

Under publishing:

SIPOS, J. & JUHÁSZ, T. & INCZÉDY, K. (under publishing). A Z generáció nyitottsága a vállalati tudástranszfer folyamatokban. *Minőség és Megbízhatóság*. 2025. Q. IV.

JUHÁSZ T. & INCZÉDY K. (under publishing). A digitális kompetencia a Z generáció tekintetében Magyarországon (empirikus kutatás alapján). *Polgári Szemle*. 2025. Vol. 4-6.

JUHASZ, T. & INCZEDY, K. (under publishing). The necessary soft skills for corporate IT governance systems - based on students' opinion in Hungarian higher education in economics. *Corporate and Business Strategy Review*

Waitig for BGE for entering to MTMT:

INCZÉDY, K. (2025). Francia kultúra hatása a SAP projektmenedzsmentre, *Az emberi erőforrások gazdálkodási aspektusai, BGE konferenciakötete.* 2025. Q1. 63-75.