

THESIS OF THE DOCTORAL (PhD) DISSERTATION

**Internationalization Strategies and Globalization at Hungarian Universities after COVID-19
Pandemic**

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1 CHAPTER ONE: INTRODUCTION TO THE STUDY

Internationalization and globalization as general concepts have their distinct meanings and focus. Internationalization of higher education is the process of integrating an international dimension into the teaching, research and service elements of an institution across borders (Knight, 2004). Globalization refers to the cross-border flow of technology, economy, knowledge, people, values, ideas which impacts nations in diverse unique ways while internationalization is one of the ways nations respond to the impact of Globalization, at the same time respects the individuality of the nation (Kreber, 2009).

The success of the implementation of internationalization strategies and the attainment of globalization goals among higher education institutions has however been hampered by challenges from unforgiving regional wars and conflicts, natural disasters, man-made disasters, and global pandemics. Previous research identifies pandemics as key agents of change and development among societies in the world (Snowden, 2019)

This debate has exposed a huge gap that calls for more studies, especially when the conceptual framework is expanded to include the external variables. The general objective of the study is to investigate the contribution of internationalization strategies to globalization at the selected universities in Hungary after Covid-19 pandemic. The specific objectives of the study are; to evaluate the contribution of students' exchange programs towards globalization, to determine the relationship between international Research Collaboration and globalization, to evaluate the role of international partnerships and to assess the contribution of Information Communication Technology on Globalization at the selected universities in Hungary after Covid-19 pandemic. This study is ignited by the need for globalization in higher education despite the ravaging effects of Covid-19 pandemic. The input of internationalization strategies sparks a debate on whether, institutions of higher learning can achieve globalization goals after pandemics such as covid-19.

The sudden entry and rapid spread of Covid-19 pandemic across the world is reshaping the direction of internationalization and globalization research in higher education institutions. The sudden desire by institutions of higher learning across the world to go global sparks debate among scholars on whether internationalization is the key to globalization or vice versa.

Cantwell & Maldonado (2009) explains that in higher education research, the difference between globalization and internationalization is the concept that globalization is considered a social and economic process while internationalization refers to strategies by which institutions of higher learning embrace globalization. Internationalization is arguably the best way of fostering peace, multiculturalism which connects human beings and appreciates their cultural diversity and heritage.

According to Échevin & Ray (2002), Thune & Welle-Strand (2005), the key indicators of internationalization are four and include international student's recruitment, Information Communication Technology use in teaching process, the choice of the type of language of instruction, the blending of human

resource, the learning materials used as well as location of institutions of higher learning. The strategic plans of universities and colleges, education policies of governments, regional and international education collaborations and research collaborations all indicate a concerted effort towards globalization. Research indicates economic and political objectives as key drivers of internationalization whereas internationalization facilitates globalization.

This study examined Study Abroad Programs, International Research Collaborations, International Partnerships, Artificial Intelligence, and Funding Opportunities as independent variables. Perceived Globalization Risks was the mediating variable being examined. The Dependent variable was Globalization in Hungarian HEIs, and the study population was international students in Hungary who were in an active student status at the time of study. Survey questionnaires were distributed online, and responses were collected from a sample of 443 respondents via online mode. Data analysis was performed using SPSS Version 29.0, and the results include Descriptive Statistics, Correlations, Inferential statistics, and Regression Analysis.

1.1 The main objective

The main objective of the study was to investigate the contribution of internationalization strategies to globalization in Hungarian Higher Education Institutions after the COVID-19 pandemic period, from the perspective of international students.

1.2 Specific Objectives

- i. To evaluate the contribution of Study Abroad Programs towards the Globalization of Hungarian HEIs after the COVID-19 pandemic.
- ii. To determine the relationship between International Research Collaborations and Globalization in Hungarian HEIs after the COVID-19 pandemic.
- iii. To establish the role of International Partnerships in globalizing Hungarian HEIs after the COVID-19 pandemic.
- iv. To assess the contribution of Artificial Intelligence to Globalization in Hungarian HEIs after the COVID-19 pandemic.
- v. To investigate the effect of Funding Opportunities on Globalization in Hungarian HEIs after the COVID-19 pandemic.
- vi. To determine the role of Perceived Globalization Risks in mediating the relationship between Internationalization Strategies and Globalization in Hungarian HEIs after the COVID-19 pandemic.

1.3 Research Problem

This study fills the existing empirical, theoretical and contextual gaps on the contribution of internationalization strategies to globalization in Hungarian Higher Education Institutions, from the perspective of international students.

1.4 Significance of this Study

Existing scholarly publications reveal significant controversy surrounding the definitions of internationalization and globalization in higher education. This has consumed much of researchers' time in attempting to provide clear definitions and unpack key concepts (Altbach & Knight, 2007; Marginson & Rhoades, 2002), a situation that has kept many scholars focused solely on definitions, hindering their investigation into the current trends in internationalization and globalization that have influenced HEIs. This study therefore addresses the existing empirical, theoretical and contextual gaps through a quantitative survey.

1.5 Theories

1.5.1 Idealism- Stier (2004)

This theory believes in a more democratic, fair, and equal world, which increases awareness of global relations, tolerance, respect, democracy, and philanthropy, involving helping the less fortunate in the world to increase international cooperation. Internationalization of higher education aims at making the world a better place for mankind, which, according to Bauman (2000), has replaced the old perspective of universalism. This research used this theory to determine the role of student exchange programs, IRCs, IPs and the use of ICT in the achievement of a more democratic, fair and equal academic environment, which is characterized by awareness of multicultural relations, tolerance, respect, democracy and philanthropy among staff and students of selected universities, as enshrined in idealistic Globalization 4.0 goals.

1.5.2 Instrumentalism- Stier (2004)

This theory advocates internationalization in higher education to meet the demands of the capitalist, global, and multicultural world for sustainable development, economic growth, and profitability. Lubienski (2003) explains instrumentalism in education as a response to market demands, where it seeks to liberate consumers and prioritise consumer preferences and satisfaction. This study was guided by instrumentalism to establish the contribution of students' exchange programs, IRCs, IPs, and AI technology harnessed by selected universities in attaining sustainable development, economic growth, and profitability.

1.5.3 The Uppsala Model

According to Johanson & Vahlne's (2017), the success of the implementation of internationalization begins with a comprehensive understanding of the markets, which relies on the discovery of existing and new opportunities. This is followed by the mobilization of resources to meet market demands. This theory guided the development of research questions and hypotheses on internationalization strategies contribution to language competence development among foreign students, the commercial aspects of

internationalization strategies, and the global world-view development among international students in Hungary.

1.5.4 The Business Network Internationalization Process Model

According to Brandenburg et al. (2020) and Jones et al. (2021), the strategic approaches to internationalization comprise global higher education values for the common good, participation of all stakeholders, and maximization of resources. This theory guided the development of questions on globalization in Hungarian higher education institutions. The following hypotheses were developed to address research questions from the perspective of international students.

1.6 Research Hypothesis

- i. H01: Study Abroad Programs do not contribute to Globalization in Hungarian HEIs after the COVID-19 pandemic period.
- ii. H2: International Research Collaborations contribute positively and significantly to Globalization at selected universities after the COVID-19 pandemic.
- iii. H03: International Partnerships do not play any role in Globalization in Hungarian HEIs after the COVID-19 pandemic.
- iv. H04: There is a positive and significant contribution of Artificial Intelligence to Globalization in Hungarian HEIs after the COVID-19 pandemic.
- v. H5: Funding significantly affects the Globalization of higher education in Hungarian HEIs.
- vi. H6 Perceived Risks mediates the relationship between Internationalization Strategies and Globalization in Hungarian HEIs after the Covid-19 Pandemic.

1.7 Research Variables

Table 1

Research Variables

	Independent Variables	Mediating Variable	Dependent variable
1.	Study Abroad Programs	Perceived Globalization Risks	Globalization in Hungarian HEIs
2.	International Research Collaborations		
3.	International Partnerships		
4.	Artificial Intelligence		
5.	Funding Opportunities		

Table 1 shows the different categories of the variables being investigated.

1.8 The Conceptual Framework

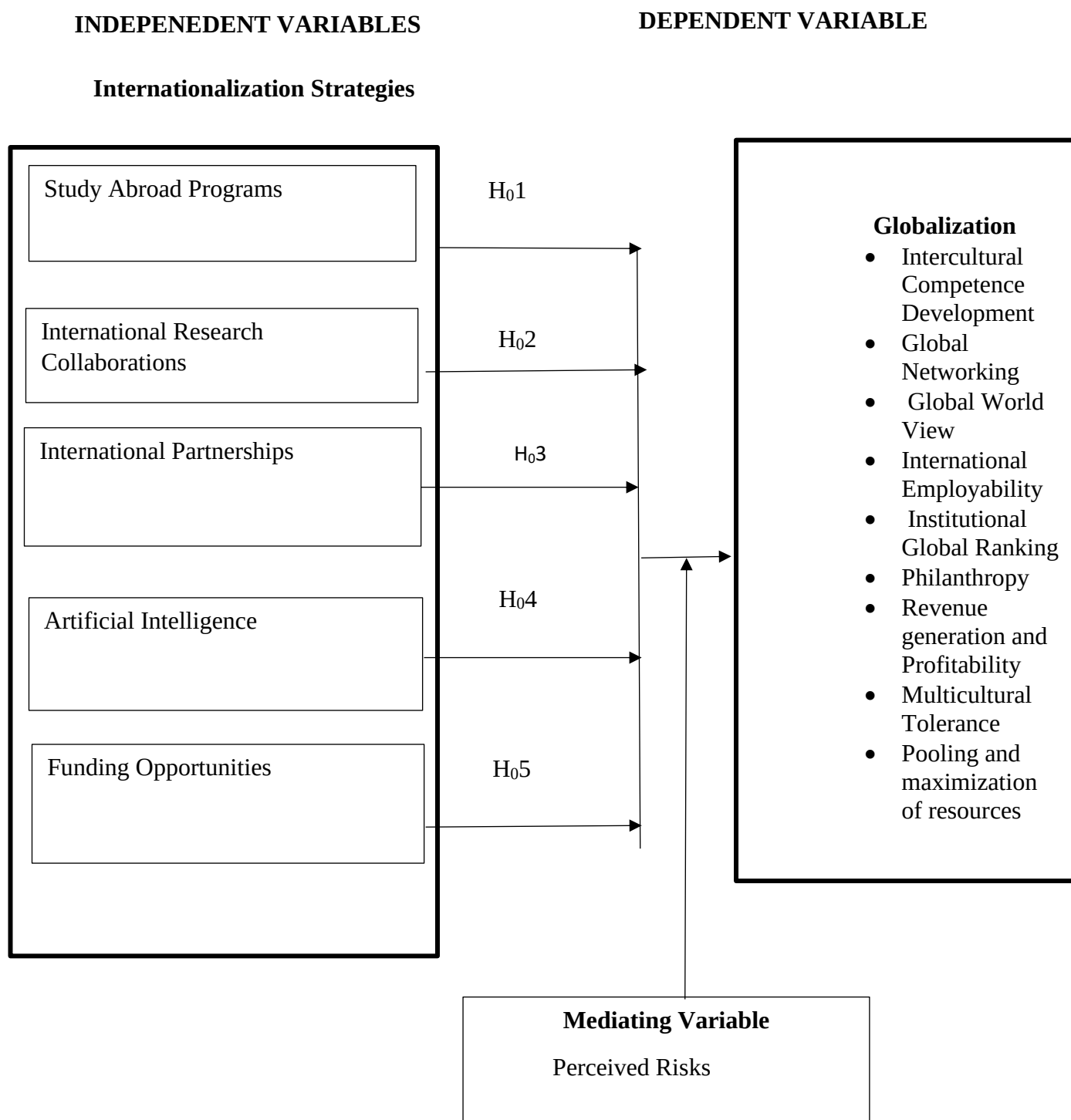


Figure 1 shows the relationship between internationalization Strategies and Globalization.

2 CHAPTER TWO: LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The following hypotheses guided this study and sought to answer the research questions from the perspective of the respondents.

2.1 H01: Study Abroad Programs do not contribute to Globalization in Hungarian HEIs after the COVID-19 pandemic period.

According to Walker et al. (2011), North Carolina State University implemented SA with highly ranked Chinese universities to strengthen its globalization mission. In the international context, study abroad programs are associated with globalization of societies, liberalization of economies, and development of global labour markets (Qiang, 2003). Daly & Barker (2005) and Anderson et al. (2006) concluded that SAPs improve intercultural tolerance, understanding, and enhance self-awareness among international students, while Nyamsuren et al. (2024) found that SAPs facilitated the development of foreign language skills, multicultural competence, and enhanced future career success among international students. Other scholars, such as Arevalo et al. (2008), Bryla (2015), and Aydin (2012), linked SAPs to higher chances of employability domestically or globally among international students, while Whatley et al. (2021) posited that SAPs led to the development of a globalised world perspective. Zemach-Bersin, (2008), however argues that study abroad programs may not result in the attainment of a global worldview, but an experience of reflecting on existing complex socio-economic inequalities in the world.

2.2 H02: International Research Collaborations contribute positively and significantly to Globalization at selected universities after the COVID-19 pandemic.

International Research Collaborations are linked to greater global scientific productivity and impact (Hu et al. 2014; Aman, 2016; Mayrose & Freilich, 2015; Larivière et al., 2015; Hall, 2017; Guan et al., 2017). According to Freshwater et al. (2006), IRCs empower researchers with a global worldview. According to Gui et al. (2019), International Research partnerships are agents of economic globalization facilitated by co-authorships, patenting, citation networks, academic conferences, and research and development networks. Gök & Karaulova (2024) explains that IRCs networks promote exchange of knowledge, technology and movement of resources which result in globalization among HEIs.

2.3 H03: International Partnerships do not play any role in Globalization in Hungarian HEIs after the COVID-19 pandemic.

According to Wubah (2024), international partnerships facilitate the diversification of campus communities, resulting in globalisation. Although Atta-Owusu et al. (2021) consider globalisation as full of benefits to participating institutions, other scholars, such as Leng (2015) and Mwangi (2017) found no mutuality between international partnerships and globalization in higher education but rather linked globalization to socio-economic inequalities and poor resource sharing. According to Unterhalter & Carpentier (2010) and Marginson (2022) IPs are often the major reinforcers of global inequalities because they are engulfed in the Western agenda. Leng (2015), in a study on IPs between Cambodian HEIs and

those in the USA, Japan, South Korea, and France similarly discovered a low mutuality between Cambodian universities and their South Korean partners.

2.4 H04: There is a positive and significant contribution of Artificial Intelligence to Globalization in Hungarian HEIs after the COVID-19 pandemic.

According to Akkaya et al. (2023), the digital revolution in higher education has enhanced global interconnectivity. Karakaş & Meri-Yılan (2024) posit that hyper-digitization and virtual technology enhance the development of intercultural competence in the globalized world while Blessinger & Wankel (2024) consider artificial intelligence as a vehicle towards global interdependence, where it links nations by upscaling hyperconnectivity. Digital innovations are empowering education stakeholders to uplift the marginalized world, promote inclusivity, and enable them to participate in the global economy. According to Blair & Shabut (2024), virtual technologies facilitate globalization of the knowledge economy across international borders. Sabbah (2024) links AI with the new wave of globalization, while Samarji & Sengupta (2023) link digital technologies to enhanced intercultural competence and skills development among international students because of participation in global virtual intercultural immersion meetings.

2.5 H5: Funding significantly affects the Globalization of higher education in Hungarian HEIs.

Previous studies link to the success of globalization in higher education. Hazelkorn (2015) explains that higher education institutions are competing to deliver world-class education to students globally. According to Carnoy (2000), funding opportunities determine the success of globalisation in higher education. Souto-Otero et al. (2019) discovered that funding opportunities from Erasmus+ have led to improved global employability among the beneficiaries, promoting globalization in 9 out of 10 beneficiaries. Mitchell (2012) associates Erasmus opportunities with intercultural competence development among the beneficiaries, while Childress (2009) discovered that limited funding was a major obstacle hindering globalization. Csaszar et al. (2023) and Stamenkovska et al. (2022) argue that funding opportunities offered by the Stipendium Hungaricum program have a significant impact on the macro-environment, promoting globalisation through economic development and the achievement of geopolitical objectives.

2.6 H6 Perceived Risks mediates the relationship between Internationalization Strategies and Globalization in Hungarian HEIs after the Covid-19 Pandemic.

Scholarly works investigating the mediating role of perceived globalization risks are limited. Hénard et al. (2012), for instance, find no correlation between anti-globalization beliefs and internationalization strategies implemented by universities. According to De Wit & Altbach (2021), there is no clear link indicating that anti-globalisation sentiments have diminished global student mobility and IPs among HEIs. According to Knight (2013), perceived globalisation consequences have no effect on internationalisation and Globalisation among higher education institutions. Similarly, Van der Wende (2021) and Lee & Stensaker (2021) argue that perceived globalization risks have never discouraged the implementation of internationalization and globalization in higher education.

3 CHAPTER 3: MATERIAL AND METHODS

3.1 Research Paradigm

Pragmatic paradigm guided this study. As a research paradigm, pragmatism allows for a variety of perspectives and approaches to solving research puzzles. This flexible window allows for examination of both the objective and subjective opinions of the respondents of a scholarly investigation. According to Foster (2024), Pragmatism allows researchers to position their research problems within their specific contexts. The choice of pragmatism was informed by this study's research objectives and questions, for example, the lived experiences of the internationalization and globalization of the respondents while living and studying in Hungary. According to Liu (2022), pragmatism is appropriate in situations where researchers are investigating actual lived experiences and perceptions of the research subjects.

3.2 Research Design

The general objective of the study was to investigate the contribution of internationalization strategies to globalization at selected universities in Hungary after the COVID-19 pandemic. This quantitative study used a survey method to collect data from the respondents. This method was chosen because of the intention to test the theory logically and prove the research hypotheses. This method was also used because of the large sample size and because its foundation satisfies the principles of the empiricist and positivist ideologies as recommended by Bryman (2016). Quantitative methods have been recommended by many scholars. For example, Creswell (2002) explains that quantitative research describes the problem statement through the analysis of relationships between variables, answering the research questions, identifying the research challenges, and providing research direction. This method also allows researchers to develop precise, quantifiable, observable statements, research questions, and hypotheses. Furthermore, it provides the opportunity for researchers to collect data from their respondents, and perform statistical analysis to decipher patterns, compare groups, the relationships between variables, and provide an objective interpretation and conclusion (Ghanad,2023). Survey questionnaires were designed, distributed, and collected online using Google Forms.

This study used correlational, descriptive, and Inferential designs. A correlational design was used to check if there were statistically significant relationships between variables and to confirm the direction of the correlation as advised by Ghanad (2023). A descriptive research design was used in the first part of the survey to describe the population in terms of gender, age, academic level, year of study, home region, institution, status of globalization, and the potential perceived risks of globalization. Inferential analysis was done to describe how the results affect the larger population. To ensure the generalization of the findings to the wider population, random sampling was ensured during the sampling stage.

3.3 Population and Sample

The target population for this study was 700 respondents. This population comprised international students and the alumni of Hungarian universities who were domiciled in Hungary during the post-COVID-19 years. The inclusion of the alumni was done after suggestions from the participants of the pilot study, who complained of being excluded, and yet they had valuable experience of the post-COVID status of globalization in Hungary.

The inclusion and exclusion criteria were as follows; must be international students or alumni from public Research universities in Hungary, the respondents must be on the list of universities identified by Tempus Public Foundation as meeting internationalization benchmarks, and at least 20 per cent of their student enrollment must comprise international students. Alumni were only included if they were studying in Hungarian HEIs during the covid period and that they were living in Hungary during the post-COVID 19 years. A random sampling technique was used to select the respondents from the target population. To ensure impartial selection and minimize sampling bias, a simple random sampling technique was employed using dynamic array functions in Microsoft Excel 365. First, the complete list of email addresses was arranged in a contiguous column range. To generate a random sample without replacement, the following formula was applied: `=TAKE(SORTBY(A2:An, RANDARRAY(ROWS(A2:An))), k)` This formula executed three sequential operations: (1) `RANDARRAY` generated a unique random value for each of the n rows; (2) `SORTBY` reordered the email addresses according to these random values, effectively shuffling the entire dataset; and (3) `TAKE` extracted the first k unique email addresses from the randomized list to create the sampling frame. This approach ensured that every email address in the target population had an

equal probability of selection and that no duplicate selections occurred. The same procedure was replicated to randomly select contact numbers from respective social media groups, maintaining methodological consistency across all recruitment channels.

The survey questionnaire link, which included a QR code, was then emailed to every email address on the random list. The survey questionnaire was designed, distributed, and collected using Google Forms.

3.4 Instrumentation

The survey tool was adapted from the previous studies, which had tested and validated the Instruments. These include: Multicultural Personality Questionnaire (van Oudenhoven & van der Zee, 2001; Ward & Kennedy, 1999; Daly, (2002), Students exchange programs (Yao, 2009; Alin, 2018), International Research Collaboration: Sweet, 2023; Stevens & Campbell, 2006; Yao, (2009). International Partnerships: (Yao, 2009; Bedenlier & Zawacki-Richter, 2015; Paige, 2005) and use of technology in the internationalisation of higher education (Hajiyeva et al., 2023).

The survey questionnaire consisted of eight sections namely; (A) Demographic details, (B) The Benefits of Internationalization in Higher Education, (C) Contribution of SAPs to globalization in Higher Education, (D) Relationship between International Research Collaboration and Globalization in Higher Education, (E) Contribution of IPs to Globalization in Higher Education, (F) Contribution of AI to Globalization of Higher education (G) Relationship between Internationalization Strategies, Funding Opportunities and Globalization in Higher Education and, (H) Potential Risks of Internationalization and Globalization of Higher Education.

3.5 Operationalization of Variables

To ensure construct validity, and optimize the theoretical assumptions of the study, the variables in the study were operationalized as follows; The descriptive variables: gender, home region and name of institution were categorized as nominal variables while age, academic level, and year of study were categorized as ordinal variables. For correlational and inferential statistics, Study Abroad Programs, International Research Collaborations, International Partnerships, Artificial Intelligence and funding opportunities were placed in the scale category on a Likert-Scale.

3.6 Validity

Validity of a research instrument, according to Bryman & Cramer (2004), refers to the extent to which it can accurately and truthfully measure the specific concepts it was designed to capture to ensure a sound and meaningful research outcome.

Shenton (2004) recommends a combination of strategies to be employed in ensuring trustworthiness in research projects. This study will therefore consider two types of validity: content validity and construct validity.

To ensure content validity, the questionnaire was double-checked, and verification was done. This was done through the circulation of the questionnaire among the course-mates, who recommended that the long and winding questions be narrowed down into precise items to avoid confusion among the respondents during data collection. The questionnaire was thus amended and recirculated. The questionnaire was ascertained by the team as valid. The questionnaire was also subjected to further scrutiny by the topic supervisor and her team and certified as valid. To further ensure validity, the adapted questionnaires were subjected to a pilot study. The pilot group consisted of international students from different universities in Hungary who were active on social media groups specifically created for multicultural and international socialization. For a pilot test, Mugenda & Mugenda (2003) recommend that a pre-test sample should be at least 3% of the target population.

Because the target population for this study was 700 international students, 40 responses were enough for the pilot test, as they were more than 21 (3% of 700), as recommended. A pilot test before research promotes clarity of research instruments, which helps to highlight similar interpretations of research questions among the respondents.

3.7 Reliability

Hair, Black, Tatham & Anderson (2006) explain that the main purpose of reliability testing is to ascertain the credibility and trustworthiness of research data. Reliability is the uniformity of true results produced by the set of variables being measured after research.

Hair et al. (2006) identified two diagnostic measures that should be employed in determining internal consistency. These are: Inter-Item correlation (Correlation > 0.3), which measures the correlation among

research items, and Cronbach's alpha (>0.70) to measure the consistency of the whole scale. According to Hair et al. (2006), reliability testing is determined by the level to which a set of measures represents a concept of interest, with discriminant reliability examining the level to which two similar concepts are conceptually distinct. To compute the coefficient of reliability in this study, SPSS Version 29.0 was used, where individual questions and items were subjected to reliability tests. The following results were obtained, which confirmed that the Cronbach's alpha condition of reliability was met.

3.8 Ethical Considerations

The procedures for data collection began with written requests for permission to conduct research. Data collection commenced after the United Ethical Review Committee for Research in Psychology (EPKEB) evaluated the ethical aspects of the research and gave their approval, Reference number: 2025-035 on March 17, 2025. Further requests were made to the target institutions and respondents to allow the researcher to proceed with the survey. Before actual data collection, the researcher-initiated sensitization programs targeted respondents through their official social media groups, where the study was introduced, with research benefits discussed with respondents and their institutions, requesting cooperation through active participation in the study. The questionnaires were preceded by an introductory part outlining the importance of the study and soliciting support from the respondents through active participation. The introductory part also gave assurance to the respondents about the utmost confidentiality of their data, data storage and protection, and adherence to the intended use of their data.

3.9 Pilot Test

Table 2

Reliability Statistics

Constructs	Number of items	Cronbach's Alpha	Verdict
Globalization in Hungarian HEIs	7	.851	Reliable
Study Abroad Programs	6	.894	Reliable
International Research Collaborations	7	.935	Reliable
International Partnerships	7	.943	Reliable
Artificial Intelligence	7	.780	Reliable
Funding Opportunities	7	.772	Reliable
Perceived Globalization Risks	5	.825	Reliable

The pilot test results in Table 2 show that all the variables were reliable (Cronbach >0.70), findings which validated the test instrument for data collection.

For further reliability assessment, I requested my thesis supervisor to examine it with her team at the department. The questionnaire was certified as reliable and was sent to the Ethical Committee for approval and to give the green light for data collection.

4 CHAPTER 4: FINDINGS OF THE DISSERTATION

4.1 Descriptive Statistics

Table 3

Sample Statistics of International Students in Hungarian HEIs.

		Gender	Age	Academic Level	Year of Study	Home Region
N	Valid	443	443	443	443	443
	Missing	0	0	0	0	0

Table 3 shows that all responses from the sample of 443 participants were analysed in this study.

Table 4

Sociodemographic Characteristics of Participants

Baseline characteristic		
	n	%
Gender		
Female	194	43.8
Male	249	56.2
Age		
18-25	197	44.5
26-35	165	37.2
36-45	73	16.5
46-55	8	1.8

56-65	-	-
Academic Level		
Bachelors	169	38.1
Masters	114	25.7
Doctoral	154	34.8
Other Diploma	6	1.4
Year of Study		
Year 1	167	37.7
Year 2	133	30.0
Year 3	86	19.4
Year 4	35	7.9
Year 5	6	1.4
Year 6	4	0.9
Alumni	12	2.7
Home Region		
Sub-Saharan Africa	115	26.0
Northern Africa	32	7.2
South America	8	1.8
Central America	5	1.1
North America	1	0.2
Caribbean	7	1.6
Middle East	67	15.1
Asia	159	35.9
Oceania	1	0.2
Central Europe	13	2.9
Eastern Europe	30	6.8
Southern Europe	4	0.9
Western Europe	-	-

Note. $N = 443$.

Table 4 shows that this study included 443 participants at baseline, with a slightly higher proportion of males (56.2%) than females (43.8%). Most participants were young, with 44.5% aged 18–25 and 37.2% aged 26–35, while older age groups (46–55 and 56–65) were minimally represented. Academic levels were distributed as follows: 38.1% held a bachelor's degree, 25.7% a master's degree, and 34.8% a doctoral degree, with only 1.4% having other diplomas. Most participants were early in their academic journey, with 37.7% in Year 1 and 30.0% in Year 2, while higher years and alumni were less common. Geographically, the largest groups came from Asia (35.9%) and Sub-Saharan Africa (26.0%), followed by the Middle East (15.1%). Other regions, including Northern Africa (7.2%), Europe (cumulatively 10.8%), and the Americas (cumulative 4.7%), had smaller representations, with some regions (e.g., Western Europe) having no participants. Oceania and Northern Europe each had only one participant. Overall, the sample consisted predominantly of young, highly educated international students with a balanced gender distribution.

Table 5

Descriptive Statistics for Variables

Statistics		Globalization in HHEIs	Study Abroad Programs	International Research Collaborations	International Partnerships	Artificial Intelligence	Funding Opportunities	Perceived Globalization Risks
N	Valid	443	443	443	443	443	443	443
	Missing	0	0	0	0	0	0	0
Median		4.0000	4.0000	4.0000	4.1429	3.7143	3.2857	3.0000
Mode		4.00	5.00	5.00	5.00	4.00	2.86	3.00
Minimum		1.00	1.00	1.00	1.00	1.00	1.29	1.00
Maximum		5.00	5.00	5.00	5.00	5.00	5.00	5.00
Percentiles	25	3.4286	3.1667	3.7143	3.7143	3.1429	2.7143	2.4000
	50	4.0000	4.0000	4.0000	4.1429	3.7143	3.2857	3.0000
	75	4.4286	4.5000	4.7143	4.8571	4.0000	3.7143	3.6000

The descriptive analysis of 443 respondents reveals that internationalization efforts in higher education are perceived more favourably than digital transformation and funding aspects. Specifically, International Partnerships (Median = 4.14) and International Research Collaborations (Median = 4.00) received the

highest endorsements, with both variables exhibiting modes of 5.00 and 75th percentiles exceeding 4.71, indicating a strong consensus on their prevalence or positive impact. Similarly, Globalization in HHEIs and Study Abroad Programs both recorded medians of 4.00, reflecting generally high engagement levels. In contrast, Artificial Intelligence (Median = 3.71) and Funding Opportunities (Median = 3.29) demonstrate more moderate perceptions, with the latter showing a notably lower mode of 2.86, suggesting less favourable views on resource availability. Notably, Perceived Globalization Risks registered the lowest median (3.00) and a wider interquartile range (2.40–3.60), pointing to neutral-to-mixed sentiments regarding the potential drawbacks of globalization. These findings suggest that while international partnerships and collaborations are well-established and highly valued, perceptions of artificial intelligence integration, funding adequacy, and globalization risks remain more varied and less developed.

Table 6

The Spearman's correlation

Variable	<i>n</i>	1	2	3	4	5	6
1. Study Abroad Programs	443	—					
2 International Research Collaborations	443	.623**	—				
3. International Partnerships	443	.565**	.700**	—			
4. Artificial Intelligence	443	.410**	.399**	.432**	—		
5. Funding Opportunities	443	.239**	.216**	.177**	.396**	—	
6. Perceived Globalization Risks	443	.21	.41	.025	.268**	.578**	—

** . Correlation is significant at the 0.01 level (2-tailed). *n*=443

The Spearman's correlation analysis (*N*=443) in Table 6 revealed strong positive relationships among Study Abroad Programs, International Research Collaborations (*r*=0.623), and International Partnerships (*r*=0.565), with the strongest link being between Research Collaborations and Partnerships (*r*=0.700). Artificial Intelligence (AI) showed moderate correlations with these international activities (*r*=0.399–0.432) and with Funding Opportunities (*r*=0.396). Funding had weaker but significant ties to Study Abroad (*r*=0.239), Research Collaborations (*r*=0.216), and Partnerships (*r*=0.177). Notably, Perceived Globalization Risks were only significantly associated with AI (*r*=0.268) and Funding (*r*=0.578), suggesting that concerns about globalization are more tied to financial and technological factors than to international academic engagement. All correlations were significant at *p*<0.01.

4.2 Test for Linearity

Table 7

ANOVA Table: Test for Linearity

				Sum of Squares	df	Mean Square	F	Sig.
Globalization in Hungarian Higher Education Institutions * Study Abroad Programs	Between Groups	(Combined)		132.207	24	5.509	14.799	<.001
		Linearity		116.335	1	116.335	312.536	<.001
		Deviation from Linearity		15.872	23	.690	1.854	.010
	Within Groups			155.592	418	.372		
	Total			287.798	442			
Globalization in Hungarian Higher Education Institutions * International Research Collaborations	Between Groups	(Combined)		115.746	26	4.452	10.764	<.001
		Linearity		99.027	1	99.027	239.435	<.001
		Deviation from Linearity		16.719	25	.669	1.617	.032
	Within Groups			172.052	416	.414		
	Total			287.798	442			
Globalization in Hungarian Higher Education Institutions * International Partnerships	Between Groups	(Combined)		88.121	26	3.389	7.061	<.001
		Linearity		64.475	1	64.475	134.325	<.001
		Deviation from Linearity		23.646	25	.946	1.970	.004
	Within Groups			199.677	416	.480		
	Total			287.798	442			
Globalization in Hungarian Higher Education Institutions * Artificial Intelligence	Between Groups	(Combined)		73.159	28	2.613	5.040	<.001
		Linearity		46.151	1	46.151	89.017	<.001
		Deviation from Linearity		27.008	27	1.000	1.929	.004
	Within Groups			214.639	414	.518		
	Total			287.798	442			
Globalization in Hungarian Higher Education Institutions * Funding Opportunities	Between Groups	(Combined)		74.580	26	2.868	5.597	<.001
		Linearity		55.292	1	55.292	107.878	<.001
		Deviation from Linearity		19.289	25	.772	1.505	.058
	Within Groups			213.218	416	.513		
	Total			287.798	442			

The ANOVA results in Table 7 indicate significant linear relationships between globalization in Hungarian higher education institutions and all five variables ($p < .001$ for linearity in each case). While linear trends dominate, deviations from linearity are also significant ($p < .05$) for all variables except funding opportunities ($p = .058$), suggesting some nonlinear patterns. Study abroad programs exhibit the strongest linear association, whereas artificial intelligence shows the weakest but still significant linear trend. These findings suggest that while linear models effectively describe these relationships, incorporating nonlinear approaches may enhance predictive accuracy, particularly for Study Abroad Programs, International Partnerships, and Artificial Intelligence. Overall, globalization in Hungarian HEIs is closely linked to international engagement and emerging trends, with predominantly linear but occasionally more complex dynamics.

4.3 Tests for Normality

Table 8

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Study Abroad Programs	.099	443	<.001	.940	443	<.001
International Research Collaborations	.134	443	<.001	.906	443	<.001
International Partnerships	.152	443	<.001	.894	443	<.001
Artificial Intelligence	.089	443	<.001	.961	443	<.001
Funding Opportunities	.070	443	<.001	.988	443	<.001
Globalization in Hungarian Higher Education Institutions	.092	443	<.001	.953	443	<.001

a. Lilliefors Significance Correction

Table 8 presents the results of normality tests (Kolmogorov-Smirnov and Shapiro-Wilk) for six variables related to globalization in Hungarian higher education. Both tests indicate that none of the variables follow a normal distribution, as all p-values (Sig.) are less than 0.001. The Kolmogorov-Smirnov statistics range from 0.070 (Funding Opportunities) to 0.152 (International Partnerships), while the Shapiro-Wilk statistics range from 0.894 (International Partnerships) to 0.988 (Funding Opportunities). The low Shapiro-Wilk values and significant Kolmogorov-Smirnov results (df = 443 for all) confirm the non-normality of the data for all tested variables. The Lilliefors correction was applied to the Kolmogorov-Smirnov test.

4.4 Cross Validation

Table 9

Cross Validation: Correlations

Approximately 80% of the cases (SAMPLE)			Predicted	Globalization in Higher Education
0	Predicted	Pearson	1	.688**
		Correlation		
		Sig. (2-tailed)		<.001
	Globalization in Higher Education	N	82	82
		Pearson	.688**	1
		Correlation		
1	Predicted	Sig. (2-tailed)	<.001	
		N	82	82
		Pearson	1	.711**
	Globalization in Higher Education	Correlation		
		Sig. (2-tailed)	<.001	
		N	361	361

**. Correlation is significant at the 0.01 level (2-tailed).

The results in Table 9 show that both cross-validation samples have a statistically significant ($p < .001$) and moderately strong positive correlations between the predicted and actual values ($0.688^{**} - 0.711^{**}$). The hold-out sample ($N = 82$) had a significant positive correlation ($R = 0.688^{**}$, $p < .001$) with the training sample ($N=361$), also exhibiting a slightly stronger positive correlation ($r = 0.711^{**}$, $p < .001$).

4.5 Multiple Linear Regression Analysis

A single multiple linear regression model was chosen for this study because the research questions were addressed through regression analysis involving five independent variables and a single dependent variable.

The choice was also informed by data linearity, normality of residuals, and independence assumptions.

4.5.1 Linear Regression Equation

The following was the Equation of the multiple regression model used.

y = Globalization in Hungarian HEIs

β_0 = Constant

X_1 = Study Abroad Programs

X_2 = International Research Collaborations

X_3 = International Partnerships ^a

X_4 = Artificial Intelligence ^b

X_5 = Funding Opportunities

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

$$y = 0.683 + 0.358 + 0.259 + 0.256$$

Note.

a and b are non-significant variables

These non-significant variables (a = IPs and b = AI) have been excluded from the regression model equation to enhance model simplicity, prevent overfitting, and prevent biased estimates of the significant variables, including the potential for misinterpretation.

4.5.2 Model Summary

Table 10

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. Change	Durbin-Watson
1	.711 ^a	.505	.499	.57106	.505	89.103	5	437	<.001	1.957

a. Predictors: (Constant), Funding Opportunities, International Partnerships, Artificial Intelligence, Study Abroad Programs, International Research Collaborations

b. Dependent Variable: Globalization in Hungarian Higher Education Institutions

The R value (0.711) in Table 10 shows a significant, strong, positive relationship between the predictors and the dependent variable. Model summary results show that a unit change in Funding Opportunities, International Partnerships, Artificial Intelligence, Study Abroad Programs, and International Research Collaboration explains a 50.5 % variance in Globalization in Higher Education. F change = 89.103(5,437). The Durbin Watson Value (1.957) suggests that the residuals are independent and that there was no autocorrelation.

4.5.3 One-Way Analyses of Variance (ANOVA)

Table 11

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	145.287	5	29.057	89.103	<.001 ^b
	Residual	142.511	437	.326		
	Total	287.798	442			

a. Dependent Variable: Globalization in Hungarian Higher Education Institutions

b. Predictors: (Constant), Funding Opportunities, International Partnerships, Artificial Intelligence, Study Abroad Programs, International Research Collaborations

Findings in Table 11 show that the overall model was statistically significant ($F(5,437) = 87.103, p < .001$). This indicates that Funding Opportunities, International Partnerships, Artificial Intelligence, Study Abroad Programs, and International Research Collaborations significantly explained the variation in Globalization in Hungarian HEIs.

4.5.4 Regression Coefficients

Table 12

Coefficients

Coefficients^a

Model		Unstandardized		Standardized		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.683	.169		4.042	<.001
	Study Abroad Programs	.358	.041	.399	8.659	<.001
	International Research Collaborations	.259	.054	.255	4.831	<.001
	International Partnerships	.000	.050	.000	.010	.992
	Artificial Intelligence	.002	.044	.002	.036	.971
	Funding Opportunities	.256	.042	.230	6.072	<.001

a. Dependent Variable: Globalization in Hungarian Higher Education Institutions

Results in Table 12 show that SAPs, IRCs, and Funding Opportunities positively and significantly contribute to Globalization, while IPs and AI had no significant contribution to globalization in Hungarian HEIs after the COVID-19 Pandemic. The findings indicate that every unit increase in SAPs, International Research Collaboration, and Funding Opportunities contributes to a corresponding 35.8%, 25.9%, and 25.6% increase in Globalization in Hungarian HEIs.

4.6 Mediation Analysis

Figure 2

Mediation Framework

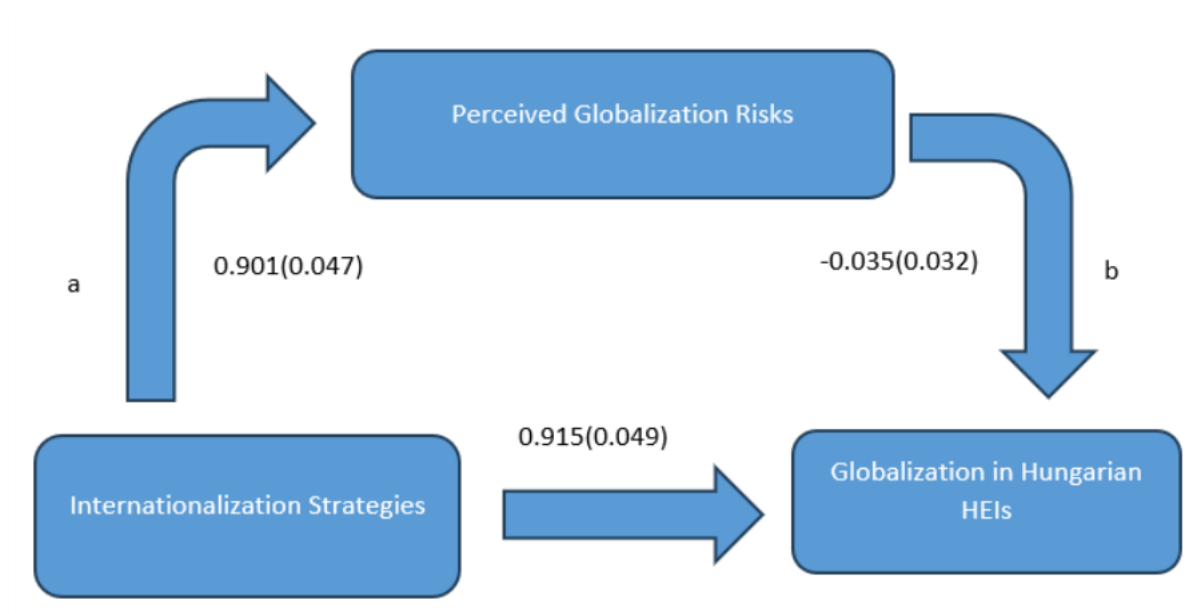


Figure 2 shows the framework for analysis of direct and indirect relationships among Internationalization Strategies, Perceived risks of globalization in higher education, and Globalization in Hungarian HEIs.

Table 13

Perceived Risks as dependent variable: Coefficients^a

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.821	.263		6.934	<.001
	Internationalization Strategies	.306	.068	.209	4.479	<.001

a. Dependent Variable: Perceived Risks of Globalization in Higher Education

Findings in Table 13 show a direct significant relationship ($p < .001$) between Internationalization Strategies and perceived risks of globalization in Hungarian HEIs.

Table 14

Globalization in HE as dependent variable: Coefficients^a

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.508	.181		2.805	.005
	Internationalization Strategies	.866	.046	.678	18.942	<.001
	Perceived Risks of Globalization in Higher Education	.001	.031	.001	.040	.968

a. Dependent Variable: Globalization in Higher Education

Results in Table 14 show that there is a direct significant effect of internationalization Strategies on Globalization in Hungarian HEIs ($p < .001$); however, there is no direct significant effect of perceived globalization risks on Globalization in Hungarian HEIs ($p = 0.968 > 0.001$).

Figure 3

Sobel Test

Input:		Test statistic:	Std. Error:	p-value:
a	0.901	Sobel test: -1.09197413	0.02887889	0.27484447
b	-0.035	Aroian test: -1.09049626	0.02891803	0.2754946
s _a	0.047	Goodman test: -1.09345802	0.0288397	0.27419275
s _b	0.032	Reset all	Calculate	

Figure 3 shows that $z = -1.092$ with a standard error of 0.029 and a $p = 0.275 > 0.001$; therefore, the indirect effect of perceived globalization risks is not significant. This means that the perceived risks of globalization in higher education have no significant mediating effect on Globalization in Hungarian HEIs.

4.7 Contribution of the Predictor Variables

Table 15

Hypothesis Testing Summary Table

Hypothesis	Sig Value	Hypothesis Testing Results (95% Confidence Levels)	Interpretation
H01: SAPs do not contribute to Globalization in Hungarian HEIs after the COVID-19 pandemic period.	<.001	<.001	Rejected

H2: IRCs contribute positively and significantly to Globalization at selected universities after the COVID-19 pandemic.	<.001	<.001	Accepted
H03: IPs do not play any role in Globalization in Hungarian HEIs after the COVID-19 pandemic.	<.001	.992	Accepted
H04: There is a positive and significant contribution of AI to Globalization in Hungarian HEIs after the COVID-19 pandemic.	<.001	.971	Rejected
H5: Funding significantly affects the Globalization of higher education in Hungarian HEIs	<.001	<.001	Accepted
H6: Perceived Risks mediate the relationship between Internationalization Strategies and Globalization in Hungarian HEIs after the Covid-19 Pandemic.	<.001	.275	Rejected

Table 15 provides a summary of results from the Hypotheses Tests.

Results show that H₀₁, H₄ and H₆ were rejected while H₂, H₀₃ and H₅ we accepted.

5 CHAPTER 5: DISCUSSION OF FINDINGS

5.1 Summary and Discussion

The purpose of this study was to investigate the contribution of Internationalization strategies to Globalization in Hungarian Higher Education Institutions from the perspective of International Students. This section highlights the key findings as guided by the following research questions.

- i. To what extent have Study Abroad programs contributed to the Globalization of Hungarian Higher Education Institutions after the COVID-19 pandemic?
- ii. What is the relationship between Globalization and International Research Collaborations after the COVID-19 pandemic in Hungarian Higher Education Institutions?
- iii. How do International Partnerships contribute to the Globalization of Hungarian Higher Education Institutions after the COVID-19 pandemic?
- iv. What is the contribution of ICT to the Globalization of Hungarian Higher Education Institutions after the COVID-19 pandemic?

- v. What is the contribution of funding opportunities to the Globalization of Hungarian Higher Education institutions?
- vi. Do Perceived Globalization Risks mediate the relationship between internationalization strategies and Globalization in Hungarian Higher Education Institutions?

Globalization in HEIs was investigated from the basis of the existing status of key indicators in the study population and from the perspective of international students in HHEIs. These included the availability of a dedicated office coordinating the internationalization activities, access to diversified sources of faculty and students, the level of multicultural tolerance, understanding, and co-existence, the level of global awareness, and deeper engagement with global issues within the study sample and population. This dependent variable also included the levels of diversified revenue generation from international students, the global ranking, use of the English language in teaching, research, and publications, and whether the host institutions operated overseas campuses.

Among the five independent variables, only three significantly and positively contributed to Globalization in Hungarian HEIs as follows: Study Abroad Programs ($\beta = 0.358$, $t = 8.659$, $p < .001$), International Research Collaborations ($\beta = 0.259$, $t = 4.831$, $p < .001$), and funding opportunities ($\beta = 0.256$, $t = 6.072$, $p < .001$). International Partnerships ($\beta = 0.000$, $t = 0.010$, $p = 0.992 > .001$) and Artificial Intelligence ($\beta = 0.002$, $t = 0.036$, $p = 0.971 > .001$) were insignificant. The standardized Beta coefficients show that Study abroad programs ($\beta = 0.358$), had the highest contribution to Globalization in Hungarian HEIs, followed by International Research Collaborations ($\beta = 0.259$), and funding opportunities ($\beta = 0.256$), respectively. Further findings indicate that Perceived Globalization Risks $p = 0.275 > 0.001$ have no mediating relationship between Internationalization strategies and Globalization in Hungarian HEIs.

The following was the regression equation for predicting Globalization in Hungarian HEIs from the perspective of the respondents.

Globalization in Hungarian HEIs = 0.683 (Constant) + 0.358(SAPs) + 0.259(IRC)s + 0.256(FOs). The following discussion of findings is based on the perspective of international students in Hungarian HEIs.

5.1.1 H₀₁: SAPs do not contribute to Globalization in Hungarian HEIs after the COVID-19 pandemic period.

Study Abroad Programs and Globalization in Hungarian Higher Education Institutions

SAPs were examined for their tendency to promote intercultural competence development, international networking, and the development of a global worldview among international students in HHEIs. This strategy is also a factor that affects the future employability of foreign students and can influence both the host country's HEIs and the country's economy. In this study, findings show that SAPs ($\beta = 0.358$, $t = 8.659$, $p < .001$) significantly and positively contributed to Globalization in Hungarian HEIs after the COVID-19 pandemic. In this model, a unit increase in SAPs contributed to 35.8% variance in Globalization in

Hungarian HEIs. The null hypothesis (H_{01}), stating that SAPs do not contribute to Globalization in Hungarian HEIs after the COVID-19 pandemic, was therefore rejected.

This finding that SAPs significantly contribute to Globalization in Higher education aligns with Daly & Barker (2005), who discovered that SAPs improve intercultural tolerance, understanding, and enhance self-awareness among international students. Daly & Barker further associated SAPs with the enhancement of international cooperation and networking. Nyamsuren et al. (2024) found that SAPs helped international students develop foreign language skills, multicultural skills, and knowledge, which helped them in future career success. The finding further aligns with Arslan (2019), who discovered in a case study of the European Erasmus program that SAPs have an impact on the individual students' lives by equipping them with global adaptation skills, foreign language professional proficiency, multicultural relations skills, and improvement of employability in the global labour markets. Similarly, scholars such as Arevalo et al. (2008), Bryla (2015), and Aydin (2012) linked SAPs to higher chances of employability domestically or globally among international students. According to a study by Mohajeri et al. (2009), SAPs equipped 77% of international students participating in the program with career skills empowerment. This finding resonates with Paige et al.'s (2009) finding that SAPs are significantly instrumental in career development among international students.

During a study to investigate international students' intercultural sensitivity because of SAPs, Anderson et al. (2006) discovered that international students' participation in SAPs led to their attainment of higher levels of intercultural sensitivity (measured using Intercultural Development Inventory (IDI). SAPs also facilitated improved global worldview and responsible global citizenship (Fisher et al., 2023; Tarrant et al., 2014, 2015).

Whatley et al. (2021) also discovered an improvement in global worldview among international students because of participation in SAPs, with the cognitive aspect being driven by travelling with faculty from domestic institutions and reflection activities being triggered by the intrapersonal aspect of global world perspective. The enhancement of global worldview, interconnectivity, and the acquisition of attributes of global responsibility are linked to SAPs. These are often manifested in study abroad beneficiaries participating in global volunteering and civic engagement (Jon et al., 2020; Zhang & Gibson, 2021).

5.1.2 H2: IRCs contribute positively and significantly to Globalization in Hungarian HEIs after the COVID-19 pandemic.

International Research Collaborations in Hungarian HEIs after the COVID-19 pandemic period.

Findings from this study on IRCs ($\beta = 0.259$, $t = 4.831$, $p < .001$) indicate that a unit change in this variable significantly and positively explains 25.9% variance in Globalization in Hungarian HEIs. Findings from previous studies, such as Hu et al. (2014), Aman (2016), and Guan (2017), demonstrate that IRCs enhance the scientific productivity of quality and high-impact publications. This is achieved through co-authorships that can bring together scholars from across the globe.

According to Gök & Karaulova (2024), IRCs facilitate the flow of people, knowledge, and technology, which benefits HEIs and nations within the collaboration networks. The drivers for IRCs include solving global challenges through pooling of research resources and expertise, maximization of financial resources within the pool network, improvement of HEIs' global visibility improved citation impact and institutional global profile, the potential for development of global trust and understanding and the potential for quality research and benefits from economies of scale and sharing of research costs (DeLaquil et al.,2022).

A previous study by Fu and Li (2016), firms that collaborated with HEIs attained a higher index rank of product innovation (mean rank = 209.16), in contrast to those that did not collaborate (mean rank = 176.41). This is supported by the findings of Mayrose & Freilich (2015) and Larivière et al. (2015) who posit that greater scientific results and global productivity are contributed by IRCs.

Gui et al. (2019) explains that the globalisation of science is the same as economic globalization and includes IRCs manifested in international co-authorships-patenting, citation networks, academic conferences, and research and development networks.

5.1.3 H₀₃: International Partnerships do not play any role in Globalization in Hungarian HEIs after the COVID-19 pandemic.

International Partnerships and Globalization in Hungarian Higher Education Institutions

This research findings show that IPs ($\beta = 0.000$, $t = 0.010$, $p = 0.992 > .001$) have no significant contribution to Globalization in Hungarian HEIs.

Most studies have focused on the relationship between IPs and Internationalization in HEIs and have ignored the investigation of the relationship between IPs and Globalization in HEIs. The finding in this study showing no significant relationship between IPs and Globalization in HEIs can be attributed to the nature of higher education partnerships, which are traditionally based on non-profit mutual agreements, in operation within HEIs in the OECD region. According to Vincent-Lancrin (2009) in OECD (2009), *Higher education to 2030*, these types of partnerships are associated with student and faculty mobility across partner institutions and involve international programs backed by mutual recognition of the academic credits and certificates obtained (OECD,2009).

Research with similar findings is limited; however, Karvounaraki et al (2018) discovered that existing European funding models are not favorable for enhancing globalization in Higher education within the EU. According to their study findings, 66% of the respondents identified the lack of sustainability in the funding model, forcing partner institutions to bear the burden of having to apply yearly to different calls for funding. The study findings further identified complications arising from administrative barriers (59%) and legal hurdles (59%) that do not favor IPs. These include a lack of common accreditation standards, a lack of uniform academic calendar, and student visa challenges.

The findings on IPs in the current study reignite the arguments of Conrad (2016) & Marginson (2022), that globalization in HEI from the perspective of global convergence and integration is provisional and the

forces holding these are loose and are subject to influence from both international and domestic actors. This amplifies the fact that globalization in HEI is unpredictable and is characterized by disconnects and constant changes. According to David (2011), Globalization in HEIs is characterized by systemic and structural inequalities among IPs and has neither improved individual nor national prosperity of the partner members.

The insignificant impact of IPs can also be associated with Cultural and Linguistic hegemony that Globalization brings to the Hungarian HEIs platform. According to Marginson (2022), Globalization champions and epitomizes the primary adoption of Anglo-American language, Science, and cultural heritage, and stigmatizes other cultures, languages, and ways of life. This suppresses the non-anglophone nations, including non-conformist European Countries such as Hungary, a predominantly Hungarian-speaking country with 98% users (Medgyes & Miklósy, 2000), which do not consider the English language and culture as superior. This conflict between Westernization and Europeanization is reflected in the behavior of IPs and the resulting globalization outcome. According to Unterhalter & Carpentier (2010), IPs are often the major reinforcers of global inequalities because they are engulfed in the Western agenda.

Leng (2015) in a study on IPs between Cambodian HEIs and those in the USA, Japan, South Korea, and France discovered a low mutuality between Cambodian universities and their South Korean partners. This view resonates with that of Mwangi (2017), IPs between the minority (the Anglo-American) world and the rest of the world countries are complicated by inequalities in resource distribution, diverse organizational structures, and practices.

The nonsignificant contribution of IPs is also linked to the fact that most IPs in Hungarian HEIs are transactional and not transformational, in the case of controlled westernization (Karady & Nagy, 2018), and are based on the exchange of resources and ideologies without the intent of institutional change or buy-in. This stems from the cautious position of the Hungarian state against domination by Anglo-American transformational partnerships that dictate that most of the world should build capacity and learn and learn from them and not vice versa (Nakabugo et al., 2010).

5.1.4 H₀₄: There is a positive and significant contribution of AI to Globalization in Hungarian HEIs after the COVID-19 pandemic.

Artificial Intelligence and Globalization in Hungarian Higher Education Institutions

Findings on the contribution of AI ($\beta = 0.002$, $t = 0.036$, $p = .971 > .001$) show that it had no significant impact on globalization in Hungarian HEIs. This finding is supported by Selwyn's (2019) argument that AI adoption in higher education is asymmetrically biased against poor nations, hence widening the globalization disparities among nations (Rikap, 2023), manifested in oligopolistic wealth distribution.

A previous study on US HEIs' leadership opinion about the adoption of AI in their institutions, Rudolph et al. (2024), discovered that the stakeholders were slow and lacked proactive strategies for adopting AI use. An informal survey by Dotan et al. (2024) shows that 63.9% of faculty members never use AI in their daily activities, while only 6.9% of administrative staff reported using it in their administrative work.

A study sponsored by Turnitin conducted on a sample of 1600 students, 1000 faculty and staff in over 600 institutions indicates that more than 75% of faculty members do not use AI regularly compared to over 50% of the students who use it. The report also discovered that the process was slow but gradual as the institutions took their time implementing it (Dotan et al., 2024; Coffey, 2023).

The reservations by HEIs to adopt the use of AI can be explained by the perceived risks, such as the tendency to be excessively reliant on AI tech giants for education service delivery in technological colonialism (Rudolph et al., 2024; Abdalla & Abdalla, 2021; Jacobides et al., 2021), fear of loss of privacy and covert surveillance (Thiel, 2019; Crawford, 2021) and the rapid development of AI which has outpaced existing regulatory and policy frameworks (European Parliament, 2023; The Economist, 2023b,).

5.1.5 H5: Funding significantly affects the Globalization of higher education in Hungarian HEIs ***Funding Opportunities and Globalization in Hungarian Higher Education Institutions***

Results from this study show that funding opportunities ($\beta = 0.256$, $t = 6.072$, $p < .001$) significantly and positively contribute to Globalization in Hungarian HEIs. A unit increase translates into a 25.6% variance in Globalization in Hungarian HEIs.

This finding aligns with Carnoy (2000), who argues that globalization in HEIs is financially driven. According to Souto-Otero et al. (2019), on *the Erasmus+ Higher Education Impact Study*, more than 4 million students benefited from the mobility program between 2014 and 2020, with 64% of international students reporting enhanced visibility and employability in the job markets. Findings also show that Erasmus+ funding promoted globalization in 9 out of 10 beneficiary HEIs, through funding of mobility programs with non-EU HEIs. 76 % of former Erasmus+ students also reported that they were able to access enhanced benefits of internationalization at their home institutions. This was reflected in more than 90% of international students who reported an improvement in their foreign language competence, intercultural communication, adaptability, acquiring a better global worldview, and multicultural tolerance. According to Mitchell (2012), the Erasmus+ program is instrumental in the development of intercultural awareness, appreciation of cultural identity, and other people's diverse cultural backgrounds.

According to Souto-Otero et al. (2019), the funding of Erasmus+ led to improved global employability, with 40% of international student beneficiaries securing jobs abroad, resulting in significantly lower unemployment rates compared to those who did not study abroad. Childress (2009) discovered that limited funding was a major obstacle hindering the implementation of internationalization plans in HEIs.

While investigating the contribution of Scholarships in a globalized world, Akhtar et al. (2024) pointed out that scholarships play a significant role in promoting global collaborations and cultural exchange. Their study concluded that scholarships encourage access to education for all, hence contributing to equality. The Fulbright scholarship, for example, has positively and significantly impacted globalization in HEIs by facilitating international knowledge exchange and diplomacy, global networking relationships, and international collaborations among stakeholders. Other scholars who investigated the contribution of

funding discovered a significant role that scholarships play in promoting cultural exchange. These include Beine et al. (2014) and Mazzarol et al. (2016).

Stipendium Hungaricum scholarship program, offered by TPF, a key initiative from the Hungarian Government, is a diplomacy strategy for the development of human resource capital and the attainment of Hungarian internationalization and Globalization goals (Tong,2021). Csaszar et al. (2023) argue that the SH program has a significant impact on the macro-environment, promoting globalization through economic development and the achievement of geopolitical objectives. According to Stamenkovska et al. (2022), the SH program has significantly contributed to the internationalization and globalization in Hungary by bringing international students and exposing them to the Hungarian language and culture for integrative and instrumental roles.

According to Kupriyanova, & Ferencz (2022), TPF 65% of the Doctoral students studying in Hungary received grants or Scholarships from the Hungarian Government, through the SH program, while more than 40% received funding from their sending countries, thus justifying the significant role of funding on Globalization in Hungarian HEIs.

5.1.6 H6: Perceived Risks mediate the relationship between Internationalization Strategies and Globalization in Hungarian HEIs after the Covid-19 Pandemic.

Perceived Globalization Risks and Globalization in Hungarian Higher Education Institutions

Perceived Globalization risks ($p = 0.275 > 0.001$) have no significant mediating relationship between internationalization strategies and Globalization in Hungarian HEIs.

Related empirical studies that used perceived globalization risks as a mediating variable are hardly available. However, the finding from this study aligns with the European context of Globalization, despite perceived threats from nationalistic social media campaigns, and has continued to grow. Hénard et al. (2012), for instance, find no correlation between anti-globalization beliefs and internationalization strategies implemented by universities. According to De Wit & Altbach (2021), there is no clear link indicating that anti-globalization sentiments have diminished global student mobility and IPs among HEIs.

Knight (2013) similarly points out that perceived consequences and myths of internationalization and globalization, such as cultural homogenization and brain drain, do not prevent HEIs from implementing internationalization. According to Van der Wende (2021), there is no significant negative change in the levels at which Europeans identify themselves with the EU, with survey findings indicating a growth since 2015. In the survey, 71% of the respondents felt proud of being European citizens, with the most positive feedback involving the free mobility to study, work, or live anywhere within the EU. In Hungary, Immigration is considered a huge threat to the EU (Van der Wende,2021).

According to Lee & Stensaker (2021), Globalization in HEIs continues to adapt rather than shun internationalization due to anti-globalization threats in their environments. Cantwell & Lee (2010), and Lee & Rice (2007) identified cultural intolerance and racism as a feature that characterizes the globalization

process. In their findings, international students were able to adjust to these host culture challenges, which eventually enabled them to attain intercultural competence. Kosmützky & Putty (2016) argued that policies motivated by nationalism, such as tightening visa requirements, had an insignificant impact on internationalization and globalization. Similarly, A study by Zhao et al. (2022) discovered that Chinese universities continued to make strategic adjustments and coping mechanisms at the height of anti-globalization pressures. These included strengthening international alliances and cooperations, virtual exchange programs, and implementing globalization models such as ‘dual circulation’ that made China a favorite destination for international students. Brandenburg & De Wit (2011) further agree that globalization in HEIs continues to grow in terms of student mobility and the opening of overseas campuses, despite the claims that threats to globalization may negatively impact the gains.

5.2 Hypothetical Explanation

Findings reveal the independent variables; Study Abroad Programs, International Research Collaborations and Funding opportunities play a significant and positive influence on Globalization in Hungarian HEIs, as perceived by the respondents(Study Abroad Programs ($\beta = 0.358$, $t = 8.659$, $p < .001$), International Research Collaborations ($\beta = 0.259$, $t = 4.831$, $p < .001$), and funding opportunities ($\beta = 0.256$, $t = 6.072$, $p < .001$). The possible reason is the dedicated investments by the Hungarian Government Through the Tempus Public foundation which has partnered with more than 100 countries to pursue internationalization and Globalization through higher education. This can also be linked to investments by other stakeholders such as the European Union’s Erasmus + which facilitate Study abroad programs, research collaborations, international internships, Joint study programs in more than 30 countries globally. Programs available include International Credit Mobility Program (ICM) facilitating non-European international students to study in Europe, Erasmus Joint Masters for international mobility between European Universities and the Erasmus +mobility initiative that facilitate international students’ studies in Erasmus+ partner institutions. The Significant role that these variables play can also be explained by the effort that Hungarian Research Public universities put in promoting multicultural diversity in their institutions.

The non-significant International Partnerships ($\beta = 0.000$, $t = 0.010$, $p = 0.992 > .001$) and Artificial Intelligence ($\beta = 0.002$, $t = 0.036$, $p = .971 > .001$).The outcome on International Partnerships can be explained by poor balance that has continued to characterize the higher education space, where the on one side, the receiving partners are mostly the developed countries compared to the third world and developing countries who have perpetually occupied the position of being the sending partners. This has portrayed international partnerships as a burden of globalization to the receiving partners. Reservation towards IPs can also be attributed to transactional nature of partnerships which value economic resource maximization rather than idealist socio-cultural transformations.

The non-significant role of AI on Globalization can be explained by the extreme caution that higher education institutions globally have towards rapid adoption due to the fear of loss of data and information privacy, the fear of covert surveillance, the fear of erosion of academic ethics and over-reliance on

technology, which may lead to natural thinking redundancy and eventual human colonization by Technology.

6 CHAPTER 6: IMPLICATIONS OF RESEARCH FINDINGS

6.1 Implications for Theory and Research

Idealism, Instrumentalism, the Uppsala Model, and the Business Network Internationalization Process Model (BNIPM) guided this study.

The findings from the contribution of the SAPs, IRCs, and the role of funding support the position of the four theories.

Idealism explains the universalism of knowledge across geographical borders, the promotion of global citizenship, adherence to globally accepted norms and ethical standards, promotion of intercultural diplomacy, and emphasis on international collaborations over Competition. From the idealist perspective, which emphasizes the role of ideas, values, and norms in shaping global interactions, the findings from this study confirm that the current globalization status in Hungarian HEIs is a product of the implementation of the three significant strategies.

Idealism gives a normative framework that explains Globalization in Hungarian HEIs from the perspective of shared knowledge, ethical standards, and global values. While Idealism overlooks the aspects of economics of globalization, the theory of Instrumentalism in this study helps explain this perspective. Instrumentalism captures the pragmatic aspects of Hungarian HEIs, which are globalizing to attain economic and strategic interests. From this perspective, Hungarian HEIs operate as market-oriented entities, competing in the international markets to attract international students and faculty. The goals are to generate and maximize revenue, human resource development, and geopolitical positioning through global rankings, and prestige wars. This theory also explains the commercialization of research and development of products through patents, technology transfer, and industry partnerships. In the Geopolitical sphere, TPF, through SH Scholarships, helps the Hungarian government strengthen global ties with other nations.

The Uppsala model in this study explains how Hungarian HEIs are gradually adopting globalization through commitment to SAPs, IRCs, and prioritization of a variety of funding opportunities that support internationalization. This model explains the bridging of the psychic distance in Hungarian HEIs through intercultural competence development, foreign language proficiency development, intercultural tolerance and peaceful coexistence, and the acquisition of world-class education. This theory integrates with Idealism and instrumentalism to explain the gradual process of globalization in HIEs. Uppsala proves that the adoption of Technology in the Globalization of Hungarian HEIs is not rapid and instant. This is seen from the insignificant role that AI plays in the globalization of Hungarian HEIs. The Descriptive details of the AI role in globalization in this study show its adoption, though with a non-significant impact.

6.2 Practical Implications

Idealism champions the betterment of society by emphasizing the adoption of positive values, ethics, norms, and knowledge. Findings from this study indicate that the implementation of internationalization strategies fosters humanistic, ethical, and egalitarian principles packaged in globalization. Idealist-led funding initiatives such as Erasmus+ play a key role in facilitating SAPs and IRCs. In the rising era of nationalism in Hungary, HEIs and other education stakeholders should develop measures to safeguard the Idealist globalization initiatives. Because of the conflict between the idealist and Instrumentalist positions, HEIs can develop a hybrid model that can enable and sustain globalization in higher education.

Uppsala highlights the importance of gradual market entrance, a critical step towards sustainable Globalization in Hungarian HEIs, as universities have time to learn the global market dynamics and be able to adjust and cope with the evolving nature of Globalization in Higher Education. This study recommends to higher education stakeholders a sequential approach to the adoption of Globalization rather than the aggressive approach.

Higher education stakeholders in the position of policy formulation and implementation should adopt the Uppsala model to help small or newly established education institutions implement internationalization and globalization programs. Higher education managers should adopt Uppsala's risk-averse approach, for instance, through prioritization of low-risk markets when opening new campuses abroad.

From the Business Network Internationalization Process Model that emphasizes internationalization through building and strengthening network relationships, Globalization in Hungarian HEIs is thriving through the implementation of internationalization strategies. Hungarian HEIs are network actors who are positioning themselves globally through SAPs, IRCs, and the prioritization of funding for internationalization programs. This theory integrates well with idealism, instrumentalism, and Uppsala in a network relationship to strengthen Globalization in Hungarian HEIs and provide a holistic understanding of how HEIs expand globally.

The integration of the Business Network Model (BNIPM) and Uppsala provides a complementary benefit to Globalization in HEIs, for example, during the early stage of globalization, universities can begin with small but incremental student IRCs, then evolve into BNIPM at the later growth stage by rapidly upscaling international collaborations in network-based expansion. BNIPM promotes trust and reciprocity, which complements Idealist's focus on equitable collaborations, both advancing ethical network building. BNIPM also works with instrumentalism in promoting strategic, goal-driven networks towards attaining globalization goals in Hungarian HEIs.

The four theories explain how the implementation of Internationalization strategies, which formed the independent variables in this study, in a gradual (Uppsala), networked (BNIPM), ethical (Idealism), and

strategic (Instrumentalism) approach can lead to the strengthening of global university alliances and attainment of globalization.

7 CHAPTER 7: CONCLUSION

The perceived Significant contribution of AI and IPs is rejected in this study. Most previous studies used ICT as an umbrella term while investigating globalization in higher education. The findings on AI expose an existing technological opportunity in Hungary, which HEIs can leverage to achieve higher levels of globalization. IPs are yet to be exploited from the Instrumentalist approach. HEIs in Hungary and worldwide should develop a hybrid model that can facilitate the attainment of both the Idealist and Instrumental goals.

8 CHAPTER 8: LIMITATIONS

8.1 Methodology

While quantitative research is credited with empirical evidence that captures hard facts, this study would have received a qualitative account for the quantitative facts if a qualitative study had been included as a complementary methodology. For example, the qualitative account of the behaviour of independent variables in contributing to Globalization in Hungarian HEIs. This limitation forms a gap that can be addressed by future researchers.

8.2 Target Population

This study was limited to International Students, therefore lacking the perspectives of other stakeholders such as local students, the faculty and university administrators. This is a crucial avenue for future research

8.3 Variables

Because of the expansive nature of internationalisation and Globalization topic and internationalization strategies, only the six institutional-level strategies were investigated. Future studies can conceptualise new studies based on other variables such as organizational level strategies.

8.4 Approvals and Permissions

Before embarking on data collection, I had to seek approval from the United Ethical Review Committee for Research in Psychology (EPKEB), a process that took an extra month. Getting permission from institutions proved challenging, as the emails sent were often not replied to, prompting the researcher to write follow-up emails and constant reminders.

8.5 Time and Cost Implications

Data collection initially scheduled to start in November 2024, coincided with the chilling Winter season in Hungary which hampered movement to the field to coordinate data collection. As a result of the unfavourable weather conditions, data was rescheduled to begin in early February 2025.

8.6 Respondent Recruitment Challenges

The process of recruiting the respondents for this research proved challenging despite the seemingly obvious availability of international students in designated social media groups. Because participation in

the research was voluntary, many participants, despite their willingness to fill out the questionnaires, acknowledged procrastination as their major challenge, a genuine reason that contributed to the slow response speed.

9 CHAPTER 9: RECOMMENDATIONS

Due to the existence of a variety of theories explaining *what* is happening in globalization in HEIs, this study proposes a new hybrid model that can balance the gradual (Uppsala), networked (BNIPM), ethical (idealism), and strategic (Instrumentalist) approaches to explain *what, why, when* and *how* globalization in HEIs is happening. This Synergistic Model will account for a phased and risk-managed globalization (Uppsala), ethical, inclusive globalization (Idealism), strategic and Return On Investment -driven globalization (Instrumentalism), and Rapid globalization scaling (BNIPM), and will empower future researchers with multi-faceted paradigms for studying internationalization and Globalization in HEIs. The proposed model will be called The Networked Value Accretion Model (NVAM) of globalization in Higher education and will be based on the following key mechanisms; *Trust & Commitment* (from Business Network Internationalization Process Model) for instance to explain how higher education institutions survive global challenges such as pandemics and geopolitical wars because of networks build on trust and commitment, *Liability of Outsidership* (Uppsala and BNIPM) to explain instances such as new entrants failing not because of lack of resources but because they are unknown in HE networks, *Value Accretion*(Instrumentalism) to explain for instance, how over time, International Partnerships and International research collaborations originally formed for instrumental reasons (e.g., recruiting fee paying international students) accrue idealistic value (e.g., joint curriculum on climate justice) and *Reverse Instrumentalism* where Idealistic goals (e.g., gender equality research) become instrumental for attracting donor funding or ranking points. Drawing on the proposed Networked Value Accretion Model (NVAM), Globalization in higher education will be defined as the *network-driven, value-layering* process through which universities pursue both ideals and self-interest, transforming routine international transactions into meaningful transnational commitments over time, while Internationalization in Higher Education is the deliberate, network-driven strategy ,balancing idealistic commitments with institutional self-interest over time that transforms local educational status quos into globally resonant dimensions, thereby enacting globalization as a value-accretive, emergent process.

10 CHAPTER 10 CONCLUSION

The findings on Artificial Intelligence and International Partnerships expose existing opportunities in Hungary, which HEIs can leverage to achieve higher levels of globalization. The finding that PGRs do not mediate the relationship between Internationalisation strategies and GHHEIs is a reassurance that Globalisation goals can be pursued and attained despite the seemingly strong opposing forces that attempt to resist change. Scholars are encouraged to critique and improve on the proposed hybrid model to open new discourse and empirical investigations on the topics of internationalization and globalization in higher education. Scholars should further develop new models that can clearly help in studying internationalization

and globalization in the modern context. The gaps identified under the limitations of this study is a resource for future scholarly investigations.

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12 PUBLICATIONS

12.1 LIST OF PUBLICATIONS RELATED TO THE DISSERTATION

Koech, D. K., Degago, E. D., Okore, L. A., & Molnár, E. (2025). Internationalization in higher education: Motives, challenges, support options, and work study balance on WHO-5 wellbeing among international students in Hungary. *ACTA PSYCHOLOGICA*, 258. <http://doi.org/10.1016/j.actpsy.2025.105184>

Koech, D. K., Demissie Degago, E., & Molnár, E. (2025). Leveraging social media for social protection: addressing the challenges of international students abroad. *JOURNAL OF INTERNATIONAL STUDENTS*, 15(7), 199–224. <http://doi.org/10.32674/ckxm8x15>

Koech, D. K., Degago, E., Kipkorir, C. S. S., Chitto, H. B., Szabó, A. P., & Molnár, E. (2024b). Internationalization and Globalization in Higher Education: An Insight on Effect of Machine Translators on Team Performance among Multicultural Students Working and Studying in Hungary. *JOURNAL OF ECOHUMANISM*, 4(1), 106–120. <http://doi.org/10.62754/joe.v4i1.4092>

Daniel, K. K., Esayas, D. D., Edina, M., Attila, P. S., & Attila, S. (2023). Internationalization and Human Resource Diversity Retention Management Strategies: A Literature Review. *CONTROLLER INFO*, 10(Special Issue 2), 33–40. <http://doi.org/10.24387/CI.2023.SPECIAL ISSUE 2.6>

Koech, D. K., Demissie, E. D., Molnár, E., Szabó, A. P., & Szakács, A. (2023). Internationalization in Higher Education: a Systematic Methodological Review. *CONTROLLER INFO*, 10(Spec. issue 2), 41–46. <http://doi.org/10.24387/CI.2023.SPECIAL ISSUE 2.7>

Chris, S. S. K., Daniel, K. K., Esayas, D., Shah, A. M., Attila, S., & Edina, M. (2022). Strategic plans, control and human capital practices: Kenyan perspective of organizational performance. *ECONOMICS & WORKING CAPITAL*, 3–4., 18–29.

Daniel, K. K., & Molnár, E. (2022). Social Media Interventions on Study-Abroad Challenges among StipediumHungaricum Scholars at Selected Public Universities in Hungary. In XI. Interdiszciplináris

Doktorandusz Konferencia 2022. november 25-26 = 11th Interdisciplinary Doctoral Conference 25-26th of November 2022 (p. 193).

12.2 LIST OF OTHER PUBLICATIONS

Koech, D. K., Nandini, L., Chitto, H., Ramphul, N., & Molnár, E. (2025). The impact of customer perception on their attitude and intention to use fintech services in Mauritius. *JOURNAL OF POSTHUMANISM*, 5(3), 1638–1653. <http://doi.org/10.63332/joph.v5i3.963>

Demissie, E. D., Kibet, K. D., Murtaza, S. A., Szakács, A., & Molnar, E. (2022). Studying the constructs of job satisfaction and its impact on public sector workers In Southwest Shoa Zone of the Oromia Region, Ethiopia. *ECONOMICS & WORKING CAPITAL*, 2022(3–4), 2–11.

Daniel Kibet, K., & Dr. Kipkorir, S. C. S. (2021). INFORMATION COMMUNICATION TECHNOLOGY: A STRATEGY IN HEALTH CARE SERVICE DELIVERY IN PRIVATE HOSPITALS. *GLOBAL SCIENTIFIC JOURNALS*, 9(6), 1–16.

Demissie, E. D., Koech, D. K., & Molnár, E. (2024a). Exploring Occupational Stress Among Employees in the Financial Industry - A Perspective from Developing Economies in Addis Ababa, Ethiopia. *VEZETÉSTUDOMÁNY*, 55(5), 20–32. <http://doi.org/10.14267/VEZTUD.2024.05.02>

Demissie, E. D., Koech, D. K., & Molnár, E. (2024b). Work-life balance : Assessing Post COVID-19 Practice of Work-Life Balance and Employee Job Performance: A Literature Review. *MULTIDISZCIPLINÁRIS KIHÍVÁSOK SOKSZÍNŰ VÁLASZOK*, (1), 3–26. <http://doi.org/10.33565/MKSV.2024.01.01>

Esayas, D. D., Daniel, K. K., Shah, A. M., & Edina, M. (2024). An Expedition Towards Innovation Through Engagement Hawassa Industrial Park, Ethiopia. *Kurdish Studies*, 12(1), 4262–4285. <http://doi.org/10.58262/ks.v12i1.306>

13 CONFERENCE, PRESENTATIONS

- 26Th Jan –March 1, 2026: ENAIS AI Safety Collaboration
- 13th Nov 2025: Global PhD Connect.International PhD Conference
- 25Th MAY 2025-Rift Valley International Conference,Kenya.
- 14Th April 2025-Lecture on Academic Research for PhD students.University of Debrecen. -
- Digital Marketing Workshop -February 20th 2025.
- May 16, 2024:3rd UD International Scientific Conference at Learning Center.
- 14th February 2024: International Conference for PhD Students: University of Debrecen. Article presented: Social Media Networks as A Stand-Alone Strategy for Appraisal Support Among African International Students in Hungary
- 25-26 November 2022: Interdiszciplináris Doktorandusz Konferencia(IDK2022), University of Pecs

- 24-25 November 2022: Bridges and Roads - II Innovation Conference: From opportunity to action.
Location: Corvinus University of Budapest, Building E, 1093 Budapest, Fővám tér 8.
- Dec. 02-04 -2022: Weekend Doctoral School; Pedagogical University of Krakow, Poland.

14 OTHER SCIENTIFIC ACTIVITIES

- 1st July 2025 -30th Sept. 2025: CeeWEB for Biodiversity -Budapest
- April 2024: Generative AI“ Lecture at the Faculty of Economics and Business of the University of Debrecen
- April 2024: WWF business case for water summit: Budapest
- April 2024: Generative AI“ Lecture at the Faculty of Economics and Business of the University of Debrecen
- December 2022: Research development Workshop: Pedagogical University of Krakow.



Registry number: DEENK/173/2026.PL
Subject: PhD Publication List

Candidate: Daniel Kibet Koech
Doctoral School: Doctoral School of Management and Business
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List of publications related to the dissertation

Articles, studies (6)

1. Molnár, E., **Koech, D. K.**: An examination of internationalization in kenyan higher education institutions from the strategic intent perspective.
Scientific Culture. 11 (3.1), 852-865, 2025. ISSN: 2407-9529.
2. **Koech, D. K.**, Degago, E. D., Okore, L. A., Molnár, E.: Internationalization in higher education: Motives, challenges, support options, and work study balance on WHO-5 wellbeing among international students in Hungary.
Acta Psychologica. 258, 1-12, 2025. ISSN: 0001-6918.
DOI: <http://dx.doi.org/10.1016/j.actpsy.2025.105184>
IF: 2.7 (2024)
3. **Koech, D. K.**, Degago, E. D., Molnár, E.: Leveraging social media for social protection: addressing the challenges of international students abroad.
Journal of International Students. 15 (7), 199-224, 2025. ISSN: 2162-3104.
DOI: <http://dx.doi.org/10.32674/ckxm8x15>
IF: 1.5 (2024)
4. **Koech, D. K.**, Degago, E. D., Kipkorir, C. S. S., Chitto, H. B., Szabó, A. P., Molnár, E.: Internationalization and Globalization in Higher Education: an Insight on Effect of Machine Translators on Team Performance among Multicultural Students Working and Studying in Hungary.
Journal of Ecohumanism. 4 (1), 106-120, 2024. ISSN: 2752-6798.
DOI: <http://dx.doi.org/10.62754/joe.v4i1.4092>
5. **Koech, D. K.**, Degago, E. D., Molnár, E., Szabó, A. P., Szakács, A.: Internationalization and Human Resource Diversity Retention Management Strategies: a Literature Review.
Controller Info. 10 (Spec.), 33-40, 2023. ISSN: 2063-9309.
DOI: <http://dx.doi.org/10.24387/CI.2023.SPECIAL ISSUE 2.6>
6. **Koech, D. K.**, Degago, E. D., Molnár, E., Szabó, A. P., Szakács, A.: Internationalization in Higher Education: a Systematic Methodological Review.
Controller Info. 10 (Spec.), 41-46, 2023. ISSN: 2063-9309.
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List of other publications

Articles, studies (9)

7. **Koech, D. K.**, Akinyemi-Oke, A. V., Okoye, I. E., Molnár, E.: Communication Strategies and Election Outcome: An examination of Nigerian Gubernatorial Elections.
Journal of Posthumanism. 5 (10), 159-173, 2025. ISSN: 2634-3576.
DOI: <http://dx.doi.org/10.63332/joph.v5i10.3470>
8. **Koech, D. K.**, Nandini, L., Chitto, H. B., Ramphul, N., Molnár, E.: The impact of customer perception on their attitude and intention to use fintech services in Mauritius.
Journal of Posthumanism. 5 (3), 1638-1653, 2025. ISSN: 2634-3576.
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9. Degago, E. D., **Koech, D. K.**, Murtaza, S. A., Molnár, E.: An Expedition Towards Innovation Through Engagement Hawassa Industrial Park, Ethiopia.
Kurdish Studies. 12 (1), 4262-4285, 2024. ISSN: 2051-4883.
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10. Degago, E. D., **Koech, D. K.**, Molnár, E.: Exploring occupational stress among employees in the financial industry - A perspective from developing economies in Addis Ababa, Ethiopia.
Vezetéstudomány / Budapest Management Review. 55 (5), 20-32, 2024. ISSN: 0133-0179.
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11. **Koech, D. K.**, Degago, E. D., Kipkorir, C. S. S., Chitto, H. B., Szabó, A. P., Molnár, E.: Internationalization and Globalization in Higher Education: An Insight on Effect of Machine Translators on Team Performance among Multicultural Students Working and Studying in Hungary.
Journal of Ecohumanism. 3 (4), 497-510, 2024. ISSN: 2752-6798.
DOI: <http://dx.doi.org/10.62754/joe.v3i4.3575>
12. Degago, E. D., **Koech, D. K.**, Molnár, E.: Work-life balance: Assessing Post COVID-19 Practice of Work-Life Balance and Employee Job Performance: A Literature Review.
Multidiszciplináris kihívások, sokszínű válaszok. 1, 3-26, 2024. EISSN: 2630-886X.
DOI: <http://dx.doi.org/10.33565/MKSV.2024.01.01>
13. Sitienei Kipkorir, C. S., **Koech, D. K.**, Degago, E. D., Murtaza, S. A., Szakács, A., Molnár, E.: Strategic plans, control and human capital practices: Kenyan perspective of organizational performance.
Economics & Working Capital. 3-4., 18-29, 2022. ISSN: 2398-9491.
14. Degago, E. D., **Koech, D. K.**, Murtaza, S. A., Szakács, A., Molnár, E.: Studying the constructs of job satisfaction and its impact on public sector workers In Southwest Shoa Zone of the Oromia Region, Ethiopia.
Economics and Working Capital. 3-4, 2-11, 2022. ISSN: 2398-9491.





15. **Koech, D. K.**, Kipkorir, S. C. S.: Information communication technology: a strategy in health care service delivery in private hospitals.

Global Scientific Journals. 9 (6), 252-267, 2021. EISSN: 2320-9186.

Conference presentations (1)

16. **Koech, D. K.**, Molnár, E.: Social media interventions on study-abroad challenges among stipedium hungaricum scholars at selected public universities in Hungary.

In: XI. Interdiszciplináris Doktorandusz Konferencia 2022. november 25-26 = 11th

Interdisciplinary Doctoral Conference 25-26th of November 2022 : absztraktkötet = Book of

Abstracts /szerk. Kajos Luca Fanni, Bali Cintia, Puskás Tamás, Horváth-Polgár Petra Ibolya,

Glázer-Kniesz Adrienn, Tislér Ádám, Kovács Eszter, Pécsi Tudományegyetem Doktorandusz

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The Candidate's publication data submitted to the Tudóstér have been validated by DEENK on the basis of the Journal Citation Report (Impact Factor) database.

13 April, 2026

