

## The impact of digital platforms enhancement on global virtual teams' engagement across selected business schools

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### **Abstract**

*This research explores the effect of the utilization and improvement of digital platforms in teaching and learning, through a global virtual project that involves business schools from five nations. The study concentrates on how technology used in the education process at various business schools has impacted the engagement of undergraduate and graduate students in global virtual team work during the post-COVID period. Additionally, the paper examines how the formations of global virtual teams of students has increased significantly their motivation in the subjects such as international business, strategic management and cross-cultural management. The study is based on a blended learning international collaboration project involving 114 students participating in global virtual collaboration through various digital platforms in International Management and International Business classes. The results demonstrate that through computer-supported collaborative learning, students from all participating business schools were highly committed and motivated in carrying out their assignments. The paper demonstrates that the integration and use of digital platforms in both face-to-face and online classes in International Business and International Management within this virtual collaboration has offered students new knowledge and sustained their motivation throughout the project.*

**Keywords:** *Global virtual teams; business schools; engagement.*

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## **1. Introduction**

The ongoing global pandemic has brought about numerous changes in education, particularly in higher education, where the integration of latest technologies has accelerated. At the same time, students have altered their expectations of colleges and universities as new global and regional trends have become the norm (Arora et al., 2020). Experiential learning has become prevalent in business schools, with classes in international business and international management being enhanced through global virtual teams, allowing students and instructors to collaborate with counterparts globally, regardless of geographical barriers (Fayed et al., 2021). The prevalence of digital platforms has also emerged thanks to exponential advancements and the COVID era, significantly altering classrooms globally by incorporating the latest technologies to manage this digital transformation (Velez-Calle et al., 2020).

The main objective of this paper is to highlight the rapidly growing impact of digital platforms on students' commitment in international business and international management courses. The research covers five countries and five different business schools, including both undergraduate and graduate students who collaborated virtually. The paper focuses on determining the factors that motivate these five international business school students to engage in virtual cooperation in the fields of international management, strategic management, and cross-cultural management.

The experiential learning referred to in the paper involves two main projects: X-Culture and BLIC (Blended Learning International Cooperation). The BLIC project was established in 2014 by the Baden-Wuerttemberg Cooperative State University (Duelle Hochschule) in Germany. The aim of the BLIC project is to engage undergraduate and graduate students in developing a business strategy to internationalize German companies by entering emerging and advanced foreign markets. The BLIC concept aligns with a program established by the German Ministry of Foreign Affairs to promote competitiveness, digitalization, and internationalization of small and medium-sized German companies. Thus, Duelle Hochschule Baden-Wuerttemberg (DHBW) established BLIC as an international project, intensifying its international cooperation with international partner business schools through a program promoting global virtual collaboration, taught at both the undergraduate and graduate levels.

The BLIC program, has expanded to six countries across three continents, attracting students from the US, South Africa, Iceland, the UK, the Czech Republic, and Estonia. The program focuses on global virtual collaboration, where students act as managers and management consultants and conduct cross-cultural studies and business strategy analyses for German small- and medium-sized enterprises (SMEs). The program is an innovative teaching method in international business classes, as it provides students with opportunities to improve their

intercultural, language, technical, management and working skills. Business schools globally are incorporating new approaches in their curriculum, such as virtual projects with partner universities, to provide better preparation for their students and to foster international experience. The paper's research questions focus on the impact of experiential learning and the introduction of digital technologies on the motivation of bachelor and master students to participate in virtual global teams from different business schools. The use of digital learning platforms allows scholars to receive constant feedback from students and gather detailed data on their engagement in global virtual collaboration.

## **2. Literature Review**

### ***2.1. Digital Platforms impact on Global Virtual Teams***

In recent years, the use of digital platforms in teaching international business courses has become increasingly popular. Adopting supportive technologies to facilitate learning has become a widespread practice in higher education. The integration of online and blended learning platforms into international business courses has greatly impacted and improved education systems (Erpenbeck et al., 2015; Northey et al., 2015; Nortvig et al., 2018; K. Smith & Hill, 2018). The use of innovative technology in higher education creates a future-focused teaching and learning environment across business schools (Becker et al., 2018). According to a meta-analysis by Chen et al. (2018), computer-supported collaborative learning (CSCL) has resulted in a positive impact on knowledge acquisition, skill development, and student perception (as shown in Table 1). During the pandemic crisis, the rapid development of technology-assisted learning and teaching accelerated as education providers sought to maintain their programs (MMB Institut, 2021; Wipper & Schulz, 2021). The pandemic served as a catalyst in transforming traditional, factory-model education into a student-centered approach that prioritizes individualized lifelong learning. In this context, professionalizing learning involves leveraging technology to enhance it (Hattula et al., 2021; Horn & Staker, 2017).

Nortvig et al. (2018) conducted a review of literature on e-learning and blended learning and found that a common approach is to define online learning as the opposite of face-to-face learning (Ryan et al. 2016). Online learning is described as being flexible in terms of time, place, and pace, and is facilitated by web-based technologies that replace traditional brick-and-mortar classrooms (Bernard et al., 2014; Chigeza & Halbert, 2014; Israel, 2015; Northey et al., 2015; Potter, 2015). Pellas and Kazanidis (2015) highlight the use of learning management systems (LMS) and virtual learning environments in online learning environments. Virtual learning environment is characterized by involving the students in face-to-face, blended learning modules or courses by using various digital platforms such as MS Teams, Moodle, Canvas and others. The online learning environment consists of entirely

online mode teaching and learning, which prevailed during global pandemic across the business schools.

A technology-rich learning environment supports the underlying pedagogical approach. In online learning settings, instructors have the opportunity to provide feedback and guidance to facilitate learning outside the classroom. By combining traditional teaching methods with technology-assisted methods, the learning environment can be enriched and both approaches can benefit from each other. Under certain conditions, blended learning can be more effective than online or face-to-face learning alone (Pellas and Kazanidis, 2015; González-Gómez et al., 2016). In the BLIC program, students collaborate in virtual global teams and experience realistic scenarios such as client-consultant relationships. This student-centered approach prepares them for the global workplace and a blended learning approach was deemed the most appropriate teaching method (Velinov, Bleicher, & Forrester, 2021). In the student-centered approach, the focus is on the students, as they are working as managers or consultants and they have to perform their tasks either in teams or individually. Thus, it requires from them to learn constantly and to communicate explicitly and clearly with their counterparts globally.

Despite the growing interest in blended learning, research in this area is still in its early stages (Smith, 2018). Smith (2018) describes blended learning research as practical, specific, and focused on outcomes. Despite the widespread dissemination of blended learning concepts in recent decades, it is still considered a specialized rather than a general phenomenon. According to Smith and Hill (2018), there is no standard understanding of blended learning, and a joint conceptual framework is needed. However, they highlight meaningful commonalities in definitions that emphasize the combination of online and face-to-face learning (Graham, 2006; Garrison and Kanuka, 2004; Allen and Seaman, 2014). Different definitions highlight different distributions of online and face-to-face teaching, but all acknowledge the integration of virtual, technology-enabled communication with the interventions of humans (Eaton, 2020; Graham, 2009; Le Rossignol, 2009; Nortvig et al., 2018).

### **3. Methodology**

This study collected data from 114 students from five business schools in Germany, UK, US, Iceland, the Czech Republic, and Estonia who were enrolled in business and management programs. The data was collected through an online questionnaire by applying Likert scale and they were distributed via Google Forms and analyzed to determine the impact of digital platforms and teaching innovations on student engagement in GVTs. The study also compares the students' perceptions of the effectiveness of digital platforms and teaching approaches before and during the pandemic period (2017 and 2022).

The paper evaluates the effect of utilizing modern digital platforms in teaching and learning in a select group of business schools on student engagement in Global Virtual Teams (GVTs) as part of the BLIC and X-Culture programs. These programs take place each semester in the same five business schools and offer students an opportunity to participate in experiential learning cycles. These experiential learning cycles represent learning cohorts, which is either module or entire course on international business, strategic management or cross-cultural management stretched out from one month to four months. The BLIC program is smaller in scale, with a focus on global virtual teams made up of bachelor and master male and female students in the age of 18-25 years old who serve as managers and consultants, conducting cross-cultural and market analyses. On the other hand, the X-Culture program is larger and includes a wider range of project activities.

In the field of business education, courses in International Management and International Business are widely taught at universities and business schools worldwide. These courses are taught not just in English but also in local languages. Students in these courses are given a variety of tasks, such as individual assignments, group presentations, written assignments, peer reviews, critical thinking essays, and other deliverables, which help them develop their analytical and team-working skills, as well as their entrepreneurial skills. The universities are putting significant effort into internationalizing their curricula, which is a trend that is seen across business schools and universities worldwide. Students connect with their foreign counterparts mainly through virtual means, such as Skype, Facetime, WhatsApp, Viber, and WeChat, in their Global Virtual Teams and group assignments. The majority of students involved in the BLIC project rely on digital platforms for communication and also use WhatsApp group chats and search engines such as Google for information (see Table 1 and 2).

The paper uses previous research by Chen et al. (2018) on the effects of computer-supported collaborative learning (CSCL) on students' perceptions as its methodology. However, this study stands out as it focuses on the impact of the global pandemic on the implementation of global virtual teams (GVTs) where students from universities worldwide collaborate remotely. Three key aspects are emphasized in the definition of blended learning: the students have a degree of flexibility in terms of time, place, path and pace; this flexibility is combined with the need for in-person learning under supervision; and finally, the authors highlight the importance of a cohesive learning experience. The design of a blended learning course in International Business must be such that content is taught both online and in person and that the teaching methods complement each other seamlessly.

#### **4. Results**

Tables 1 and 2 below explain what is the students' perception on BLIC and X-Culture projects and different factors have been evaluated by using the Likert scale. These factors include utilization and intensity of using digital platforms by students for conducting their tasks in GVTs. Also, it is evaluated students' perception on their communication with other students and teachers by the usage of wide varieties of digital platforms and communication channels. Both tables represent consolidated data from all business schools within the field research. The research findings indicate that students have a positive view of their experiences in the BLIC and X-Culture projects. During the nationwide shutdowns in 2022, the students were required to stay at home, but the adoption and use of digital platforms and online learning were critical for them to stay connected with their team members and complete their assignments. The students reported satisfaction with their team's performance and the support they received from lecturers and team coaches through the search engines such as Google, Bing and others reaching at the value of 6,289 out of 7 (see Table 1). The lecturers were also evaluated highly by the participants, and the communication via community or conference technologies was ranked high, indicating a strong level of interaction between students and lecturers reaching at the value of 4,596 out of 7 (see Table 2).

Student interest in the X-Culture and BLIC projects was fluctuating throughout the academic year, due to their busy schedules with jobs and multiple group assignments in each subject. The students also expressed fear about working virtually with peers from other countries, as it required them to do extra work, such as reading online information and maintaining virtual contacts. However, students' motivation to work in GVTs remained high, as they value the communication with the teachers and students counterparts abroad by using available icloud digital platforms, which enable the students to perform their tasks and assignments efficiently (see the value of 4,026 on the cloud-based groupware for collaborative work).

#### **5. Discussion**

The paper describes how GVTs are a recent trend in International Management and International Management courses at business schools and these courses are appealing to students. The universities have been participating in the BLIC program since 2017 and all students in the study sample worked virtually with their peers from bachelor and master programs. The majority of Czech students had good English language skills, allowing them to communicate and collaborate effectively with their international counterparts. Around 15-20% of the 40 students per semester were international, with the majority being Russian-speaking students who had proficiency in both English and Czech.

When it comes to students' reluctance to work in GVTs, the main causes are fear of communicating outside of their comfort zone, low knowledge of foreign cultures and work habits, limited time to dedicate to GVT work, and most commonly, discomfort speaking in English. Many of the students who participated in GVTs also had student jobs alongside their studies and found it challenging to balance both. The students felt that the GVTs took up too much of their time, and often asked their international management instructors if the X-Culture or BLIC projects were mandatory or optional. The Czech students in particular had low self-esteem when it came to GVT tasks and assignments and were not eager to collaborate with non-Czech students.

**Table 1. Usage of digital media and technologies by the students within BLIC and X-Culture Programs.**

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Means</b>	<b>Std.Dev.</b>
Utilization intensity of technologies and tools: 1. Online libraries from the university	114	1.000	7.000	3.149	1.915
Utilization intensity of technologies and tools: 2. Internet search engines (e.g. Google, Bing)	114	2.000	7.000	6.289	1.239
Utilization intensity of technologies and tools: 3. Social media portals (e.g. Facebook)	114	1.000	7.000	3.096	1.914
Utilization intensity of technologies and tools: 4. Video channels (e.g. YouTube videos from experts)	114	1.000	7.000	3.763	1.859
Utilization intensity of technologies and tools: 5 Community/ Conference technologies (e.g. Zoom, MS Teams, Skype, WebEx, etc.)	114	1.000	7.000	5.035	1.982
Utilization intensity of technologies and tools: 6. Cloud-based services (e.g. Google Drive, DropBox, OneDrive)	114	1.000	7.000	4.026	2.216
Utilization intensity of technologies and tools: 7. WeChat, Whats App, Viber App, etc.	114	1.000	7.000	5.272	1.859
Utilization intensity of technologies and tools: 8. Learning portals from the university (e.g. Moodle, Canvas, Blackboard)	114	1.000	7.000	3.430	2.069

Source: Own elaboration \*1=Not at all or very low utilization intensity, 7=Very high utilization intensity.

**Table 2. Digital tools for communication and interaction between students and teachers within BLIC and X-Culture projects.**

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Means</b>	<b>Std.Dev.</b>
Utilization intensity of technologies and tools: 1. Online libraries from the university	114	1.000	7.000	4.105	2.212
Utilization intensity of technologies and tools: 2. Internet search engines (e.g.Google, Bing)	114	1.000	7.000	4.596	1.999
Utilization intensity of technologies and tools: 3.Social media portals (e.g.Facebook)	114	1.000	7.000	2.026	1.747
Utilization intensity of technologies and tools: 4.Video channels (e.g.YouTube videos from experts)	114	1.000	7.000	2.772	1.896
Utilization intensity of technologies and tools: 5 Community/ Conference technologies (e.g.Zoom,MS Teams,Skype,WebEx,etc.)	114	1.000	7.000	4.982	1.886
Utilization intensity of technologies and tools: 6.Cloud-based services (e.g.GoogleDrive,DropBox,OneDrive)	114	1.000	7.000	3.018	2.428
Utilization intensity of technologies and tools: 7.WeChat,Whats App, Viber App,etc.	114	1.000	7.000	4.877	2.108
Utilization intensity of technologies and tools: 8.Learning portals from the university (e.g.Moodle,Canvas,Blackboard)	114	1.000	7.000	1.772	1.482

Source: Own elaboration \*1=Not at all or very low utilization intensity, 7=Very high utilization intensity.

International Management and International Business courses, particularly when it comes to Global Virtual Teams, can be demanding for students. They need to adjust to a large amount of instructions, establish contact with their team members from around the world, and maintain virtual cooperation for at least one semester. The challenges faced by global virtual teams extend beyond pedagogical practices and require lecturers and tutors to understand the broader context of students' readiness to cooperate and how it is influenced by online communication (Johnson, 2013). Furthermore, the implications of cultural values and

practices on student aversion to cross-cultural teamwork, as well as the role of trust-building in virtual teams, need to be analyzed in order to help students achieve a committed performance in virtual teams and networks (Hakanen, M., Kossou, L., & Takala, T., 2016).

## 6. Conclusion

The focus of this article is the impact of experiential learning in global virtual teams (GVTs) on student motivation, as seen through the lens of the BLIC project. The authors believe that incorporating international business education into hands-on, adjustable, and experimental learning will bring more value to universities. Despite its small size and focus on partnership and agile testing, the BLIC project has been successful in motivating students by providing opportunities to develop business skills, strategic thinking, and communication abilities in hybrid learning environments. Both the BLIC and X-Culture projects have positively impacted student motivation by providing hands-on experience and international business knowledge.

This paper has both academic and theoretical implications. From an academic perspective, the authors found that experiential learning through GVTs has increased motivation among students at the selected business schools, largely due to the use of various digital platforms. The theoretical aspect of the paper highlights the role of digital platforms and virtual interaction in GVTs and experiential learning. The findings suggest that virtual collaboration enhances learners' mindset, digital inclusion, and motivation. To maximize the benefits of virtual collaboration, students were encouraged to document their learnings through a structured reflective report. The future development of GVTs is crucial in shaping high-quality international business courses and keeping students motivated to participate and contribute in class.

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