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# STUDENTS' PERCEPTION OF TEAMWORK IN SOLVING CHALLENGES IN BUSINESS

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## Abstract

The aim of this study is to explore students' perception of teamwork in solving prevailing challenges related to business operations and growth prospects of selected companies in Nordics. This exploratory study is connected to the body of knowledge encapsulating student teamwork and performance. We present the results of our study based on a competition called 'Nordic Case Challenge', where five universities from four Nordic countries including Finland, Denmark, Norway and Iceland participated. The event was held from 18<sup>th</sup> to 22<sup>nd</sup> March 2024 at the School of Business and Media, Tampere University of Applied Sciences, Finland. Student teams took part in the competition. Company representatives and other professional experts were also invited to the event. The data for this study was collected at the end of the event. The results of the analysis of empirical data reveals that 'commitment' of a team member is perceived as the most important competence to achieve successful teamwork. Interestingly, respondents' accounts show that 'knowledge & skills' of a team member do not influence teamwork that much. In respondents' opinion, the 'personality clash' is the most challenging aspect of teamwork. The least challenging aspect is 'high workload'. The results highlight that 'active communication' has the most positive impact on team performance whereas according to respondents a team's performance would have a negative impact in case there are smaller groups (factions) within a team. Results show that variable of 'creativity & innovation' is seen having the highest importance while solving real-life business challenges. The 'trade regulations' were considered having the least importance for students. It shows that after participating in an event like NCC, student expressed their own development in understanding challenges related to business operations.

Keywords: Business challenges, teamwork, team performance, Nordic countries, business students, student competition.

## 1 INTRODUCTION

A team is a social entity formed by its members [1] having common objective and collective identity [2]. Its overall performance or effectiveness is related to teamwork as a whole to achieve collective success [3]. In the context of higher education teamwork activities create interesting learning avenues also in business studies, where students regularly participate in teamwork activities. Prevailing literature highlights that there are many challenges in student teamwork activities. The aim of this study is to explore students' perception of teamwork in solving prevailing challenges related to business operations and growth prospects of selected companies in Nordics. This exploratory study is connected to the body of knowledge encapsulating student teamwork and performance. In this study, we also explore some of the factors that influence team collaboration and challenges in teamwork.

We present the methodology of the study including context and description of the case challenge in the next section. We provide the results and conclusion in the later sections.

## 2 METHODOLOGY

In this section, we present a brief description of the context of the study, the description of the business case and research design. The present research explores international business students' perception of teamwork in solving real-life challenges in business. The context of this study is an international event namely 'Nordic Case Challenge' (NCC). This event is offered to students from universities in Nordic countries. The student teams have around 3 to 5 members, who complete against other teams to win the event.

This study follows quantitative research design. The data was collected via an electronic survey questionnaire at the end of the NCC event during spring semester last year. For this specific research, a questionnaire was created using MS Forms survey tool. This study avails a sample of 20 international students (08 female and 12 male students) from four Nordic countries. including Finland, Denmark,

Norway and Iceland. Most of the participating students (19) were from the bachelor's degree program in the field of Business Management at their home universities. The students participating in the survey were also asked about their own profile and to answer quantitative questions related to their perception of teamwork in solving real-life challenges in business. The variables used in the survey questionnaire were based on the literature review.

## **2.1 Context of the study – Nordic Case Challenge**

The 'Nordic Case Challenge' (NCC) is a co-operative effort of representatives from higher educational institutions from all Nordic countries. The network was established among educational professionals with the experience or interest to gain experience from business case learning via business case competitions. The core mission of the network has been to develop business case pedagogy and increase the level of business case learning and competence specifically in the Nordic countries. This has been the most influencing factor in creating Nordic Case Challenge, a junior-level case competition for bachelor-level business students studying in the Nordics.

The first Nordic Case Challenge was launched in 2022 including a final week hosted by Reykjavik University. Second edition was hosted by Copenhagen Business School, Denmark and Lund University, Sweden in 2023, and the third edition by Tampere University of Applied Science, Finland in 2024. In 2025 the final week of the competition will be hosted by Agder University in Norway. The business cases are always provided by companies operating in the Nordic region. Participants consist of teams from all members of the network, and separately invited business schools. In the Nordic Case Challenge hosted by Tampere UAS in 2024. There were 12 participating business schools: all of them including a team of four business students and their teacher advisor.

In every new edition of the competition the business cases are always related to the same themes: the Nordic region, sustainability and innovations. There are several reasons for this. The Nordic region has always been well-known for innovation and creativity, with all countries ranking in the top 20 for innovation in 2021 (source: WIPO, World Intellectual Property Organization). By featuring a "Nordic" competitive element, the competition enhances the learning of innovation and broadens students' perspectives on the subject.

Competition also emphasizes the significance of sustainability in every area of business operations. It also presents students the numerous opportunities available in the Nordic region, providing business students with opportunities to learn in a unique, practice oriented and needs-based setting the core skills that are required in business life. In addition to all this, it strengthens the collaboration between students and educational faculties and boosts the motivation for international recognition and to strengthen Nordic relations.

The structure of the competitions is as follows: The first stage includes the online case launch of the first case in January. The teams have 10-14 days to solve the first case. During this stage every participating school has the possibility to decide on the selection process of their own team representing the business school: they can organize an internal competition or hand-pick their team members. In February the team formations are informed to the hosting business school, and these teams of four students arrive at the final week that is held in March. During the final week students first present their solutions for the first case to the judging panel consisting of representatives from the case company, academics and other potential groups e.g. alumni. After that there is a final case provided by another case company, and teams have a time slot of approximately 15 hours to create an analysis and a recommendation for the case challenge. They will be presented to a judging panel, and the winners of each competing division will get to the finals of the competitions. Teams ranking first, second, and third will be awarded, and the Best Presenter will also be awarded.

## **2.2 The Real Business Case in Nordic Case Challenge**

The final case in Nordic Case Challenge 2024 was provided by a Finnish technology company. The company has successfully developed cutting-edge embedded solutions for their existing customers, but their momentum could be more bold and rapid as the market is rapidly changing and new market leaders are emerging. Their embedded solutions in different IoT- devices should strive for sustainable impact. The case concerns this dilemma, and the case company expected and received recommendations to the following questions: Which companies should the company help become market leaders of the future in the fields? How can the company break through and gain traction in the AI/IoT ecosystem? What kind of transformative step does the company need to take? Can the company foster partnerships with other

players in the AI/IoT ecosystem? How can the company maintain their agility while working with larger companies and by that keep them ahead of the curve?

Nordic Case Challenge develops several skills that are essential in today's business life. In addition to increasing knowledge about a specific industry, it creates a solid business understanding and cultural awareness, and increases complex business problem solving skills including innovative, data-driven, and logical thinking skills. It also increases teamwork and time management skills and strong presentation skills. In addition to all this it also is an opportunity to create new networks: getting to know business students, soon to be business professionals, from other countries and connecting with case companies for further cooperation possibilities is a unique opportunity that is highly appreciated by all participants. We present the analysis and results of the study in the next section.

### 3 RESULTS

The analysis of empirical data and results are presented hereunder. A description of students' profile is also presented. The responding students represent both male and female genders. However, the proportion of male respondents is somewhat higher than that of females. (Table 1.)

*Table 1. The respondents' genders*

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	12	60 %
Female	08	40 %
Total	20	100 %

The responding students are distributed into three age groups. Majority of the respondents are of the age group between 21 to 25 years old. (Table 2.)

*Table 2. Age distribution of the respondents*

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>
17 - 20 years	05	25 %
21 - 25 years	13	65 %
26 years or older	02	10 %
Total	20	100 %

The students represent 22 nationalities, and nine students have double nationalities. However, majority of the students are Finnish. (Table 4.)

*Table 4. The respondents' nationalities*

	<b>Frequency</b>	<b>Percent</b>
<b>Finnish</b>	05	25 %
<b>Denmark</b>	07	35 %
<b>Norway</b>	06	30 %
<b>Iceland</b>	02	10 %
Total	20	100 %

The male respondents are mostly 21 years or older. The youngest respondents are mostly males. There are no female respondents of 26 years or older. (Table 3.)

Table 3. Age distribution based on the respondent's gender

Age	Gender		Total
	Male	Female	
17 - 20 years	03	02	05
	15 %	10 %	25 %
21 - 25 years	07	06	13
	35 %	30 %	65 %
26 years or older	02	0	02
	10 %	0 %	10 %
Total	12	08	20
	60 %	40 %	100 %

### 3.1 Team member's competences in successful teamwork

Using the scale of 1 – 5, the participating students were asked to rank the importance of individual team member's competences in successful teamwork. The rankings have been described as 1 being the least important and 5 being the most important competence.

As shown in Figure 1 below, the variable of 'Commitment', has been ranked the highest among all other given variables. Respondents considered this competence as the most important one to achieve successful teamwork. Interestingly, respondent perceived the variable of 'Knowledge & Skills' as the least important to achieve successful teamwork.

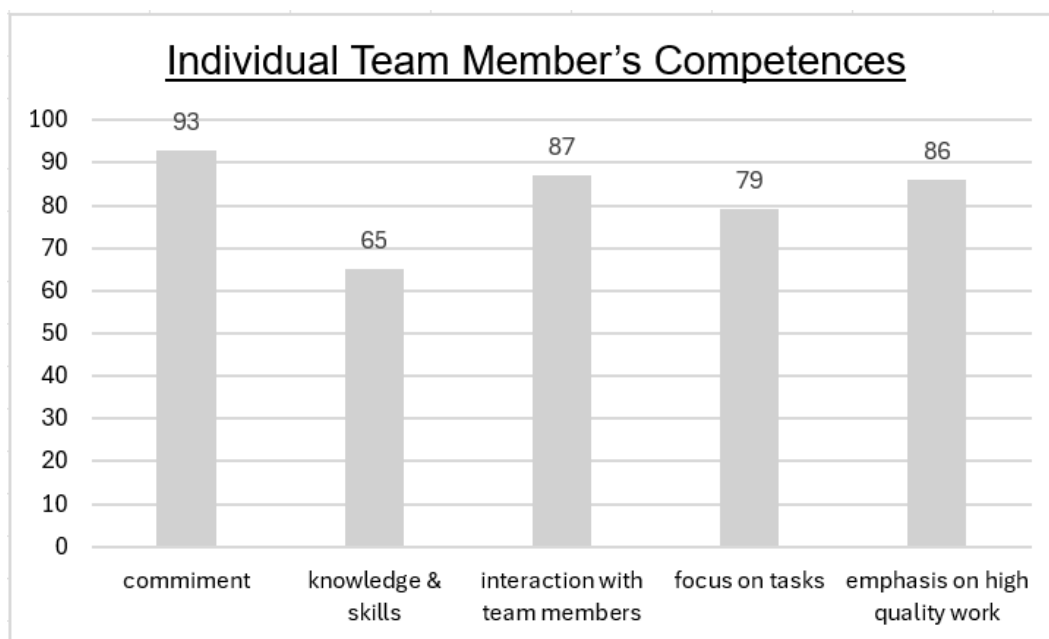


Figure 1. Ranking the importance of an individual team member's competences in successful teamwork.

### 3.2 Team member's competences in successful teamwork

Using the scale of 1 – 5, the participating students were asked to rank the importance of individual team member's competences in successful teamwork. The rankings have been described as 1 being the least important and 5 being the most important competence.

As shown in Figure 2 below, the variable of 'Commitment', has been ranked the highest among all other given variables. Respondents considered this competence as the most important one to achieve successful teamwork. Interestingly, respondent perceived the variable of 'Knowledge & Skills' as the least important to achieve successful teamwork.

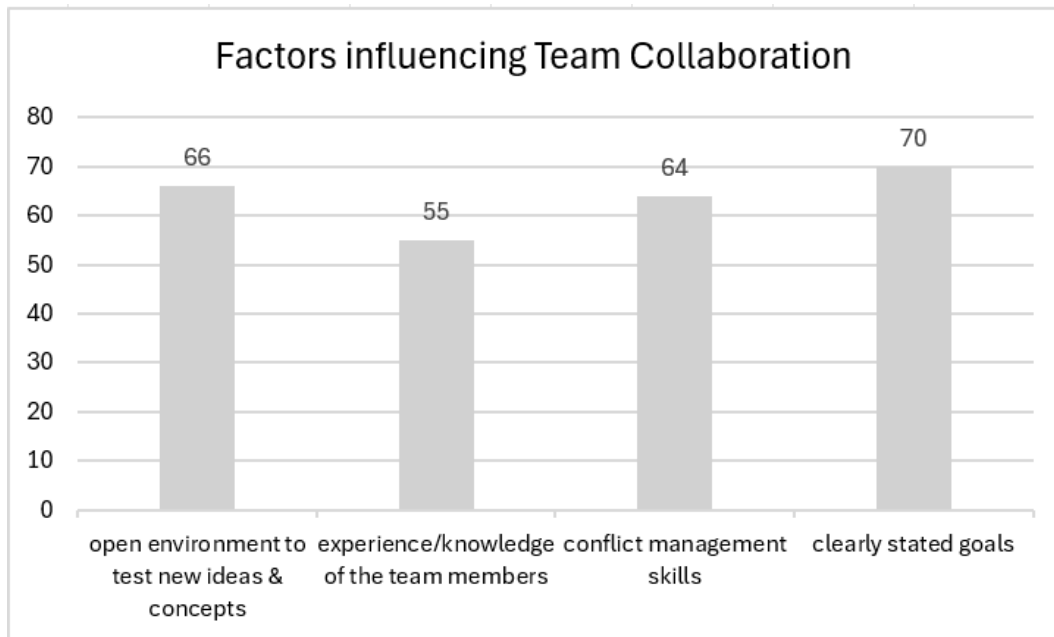


Figure 2. Ranking the importance of factors influencing team collaboration.

### 3.3 Challenges in Teamwork

Using the scale of 1 – 5, the participating students were asked to rank challenges in teamwork from most challenging to least challenging. The rankings have been described as 1 being the least challenging and 5 being the most challenging.

As shown in Figure 3 below, respondents assessed the variable of 'personality clash' as the most challenging aspect in teamwork. The least challenging aspect in was 'high workload'.

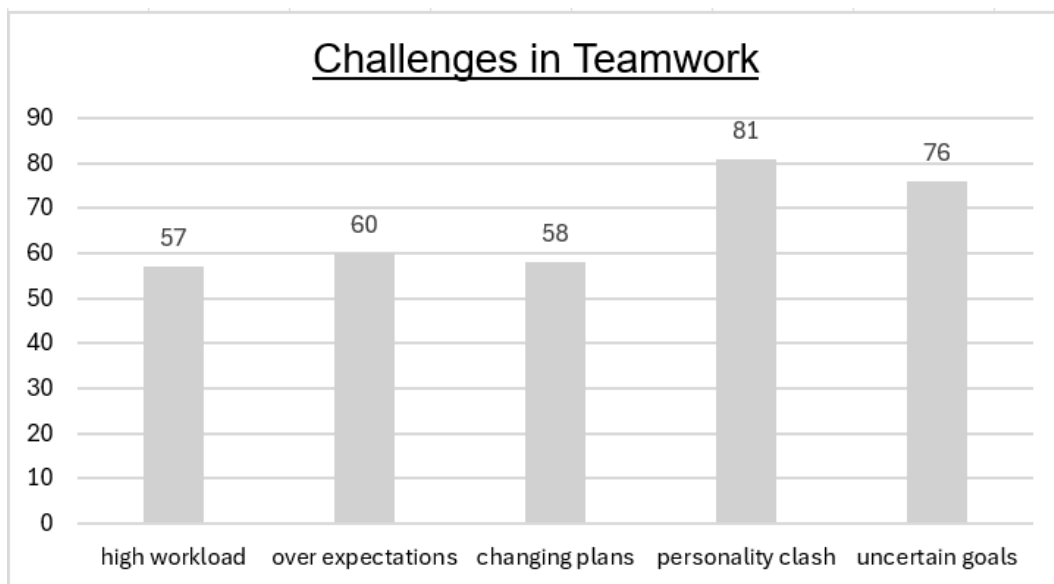


Figure 3. Ranking the challenges in teamwork.

### 3.4 Impact of factors on team performance

The participating students were asked to select the possible impact of factors on team performance. The given options were positive impact, neutral and negative impact.

As shown in Figure 4 below, respondents assessed the variable of 'active communication' having the most positive impact on team performance whereas according to respondents a team's performance would have a negative impact in case there are smaller groups (factions) within a team.



Figure 4. Possible impact of factors on team performance.

### 3.5 Importance of attributes in solving challenges in business

While solving the given business challenge, respondents were asked to provide their own perception of the importance of business attributes. We used the scale of 1 – 5. 1 being the least important and 5 being the most important business attribute.

As shown in Figure 5 below, respondents assessed the variable of 'creativity & innovation' having the highest importance while solving real-life business challenges. The 'trade regulations' were considered having the least importance.

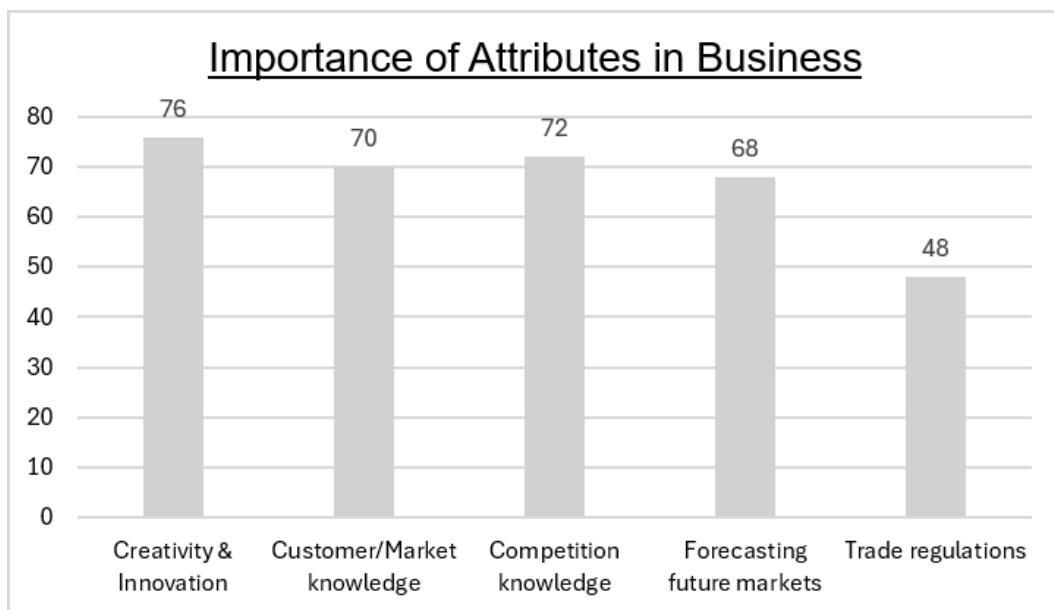


Figure 5. Importance of attributes while solving challenges in business.

### 3.6 Personal development of students during NCC event

While solving the given business challenge, respondents were asked to provide their own opinion, to what extent they agree with the statements given regarding their personal development during the NCC event. The options given were disagree, somewhat disagree, neutral, somewhat agree, and agree.

As shown in Figure 6 below, respondents expressed their own development in understanding challenges related to business operations at maximum during NCC event.

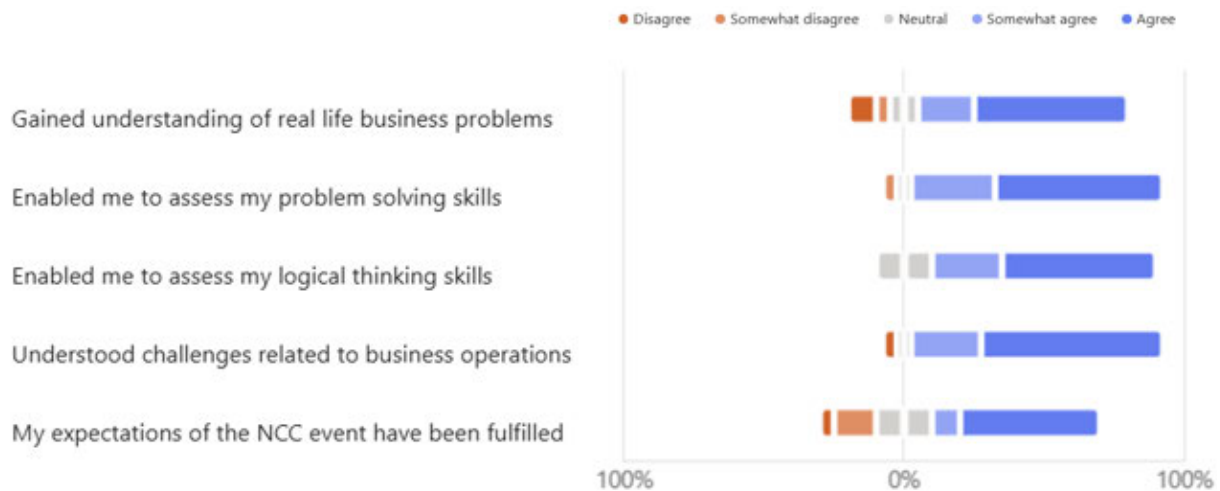


Figure 6. Student's own perception of personal development during NCC Event.

The conclusion of the research is presented in the following section.

## 4 CONCLUSIONS

The aim of this study is to explore students' perception of teamwork in solving prevailing challenges related to business operations and growth prospects of selected companies in Nordics. The results of the analysis of empirical data reveals that 'commitment' of a team member is perceived as the most important competence to achieve successful teamwork. Interestingly, respondents' accounts show that 'knowledge & skills' of a team member do not influence teamwork that much. In respondents' opinion, the 'personality clash' is the most challenging aspect of teamwork. The least challenging aspect is 'high workload'. The results highlight that 'active communication' has the most positive impact on team performance whereas according to respondents a team's performance would have a negative impact in case there are smaller groups (factions) within a team. Results show that variable of 'creativity & innovation' is seen having the highest importance while solving real-life business challenges. The 'trade regulations' were considered having the least importance for students. It shows that after participating in an event like NCC, student expressed their own development in understanding challenges related to business operations.

As this study avails a smaller data sample, hence care should be taken while generalizing the results of this study. A bigger sample should be used to furnish better results.

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