

MARKETING THROUGH A GENDER-SPECIFIC APPROACH IN THE IT SECTOR: A CASE STUDY OF THE ONLINE FEMALE CODING SCHOOL

Lappeenranta-Lahti University of Technology LUT

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ABSTRACT

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Marketing through a gender-specific approach in the IT sector: A case study of the online female coding school

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Despite efforts to increase the representation of women in the Science, Technology, Engineering, and Mathematics (STEM) field, the number of women studying and working in this area remains low. This creates a gap in expertise, as half of the population is not being taken into equal consideration in technological professions, technology and product development, and markets. This thesis aims to explore potential marketing strategies to promote and facilitate the advancement of women in the Information Technology (IT) sector, with particular emphasis on the initiatives taken by the Case company to support female employees in their professional development. To this end, a qualitative study was conducted at a female coding school, wherein the founder was interviewed, and 83 students responded to a survey.

This study has identified an urgent need for more targeted initiatives to support women in IT. Such initiatives could include targeted marketing campaigns, mentoring programs, sponsorship opportunities, and formal coaching structures. These efforts would provide a platform for female representation in the industry as well as an environment that encourages collaboration and nurtures talent. The success of such measures would have a positive influence on the wider representation of women in the IT sector and help close the gender gap in the industry.

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Finally, I am dedicating this work to my parents, since they gave me the opportunity to study abroad in the first place. I appreciate and value it a lot.

LIST OF ABBREVIATIONS

AIDA Attention, Interest, Desire, and Action

DEI Diversity, Equity, and Inclusion

ICT Information and Communication Technology

IT Information Technology

OVP Online Value Proposition

STEM Science, Technology, Engineering, and Mathematics

STP Segmentation, Targeting, and Positioning

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1. Introduction

For many decades, women have been making significant contributions to the field of technology, from Ada Lovelace, who was the first computer programmer, to Grace Hopper, who developed the first compiler. (Dee, 2011) However, the situation has dramatically changed. According to Canadian journalist Clive Thompson, who published the book "Coders: The Making of a New Tribe and the Remaking of the World" (Clive Thompson, 2019), most programmers today are men.

When companies began to use programs for payroll and data processing, the number of jobs for programmers greatly increased. A study shows that in 1974, the number of men and women interested in a career as programmers was the same. However, it appeared that everything had reversed; a decade later, the percentage of women in this field began to fall. By 2010, it had halved: only 17.6% of students who graduated with a diploma in computer and information programs were women. (Clive Thompson, 2019)

The World Bank's Gender Statistics reports that fewer than 4 out of every 10 STEM graduates are females. In South Korea, Chile, Burundi, Cambodia, and Burkina Faso, it has been observed that less than 20% of STEM graduates are female. The demand for STEM graduates in this digital era far outweighs the supply. This discrepancy in career choices shows a missed opportunity. (blogs.worldbank.org, 2019)

This shortage can be filled by encouraging more women to pursue IT careers using effective target marketing techniques, or, in this context, gendered marketing. Women are historically underrepresented in the IT sector, and this has resulted in a number of challenges and stereotypes that women face while working in this field. These challenges include discrimination, a lack of mentorship, and a lack of opportunities for advancement, to name a few. By adopting a gender-specific marketing approach, companies can tailor their messaging and outreach efforts to better appeal to women and create a more inclusive and supportive environment in the IT sector. While there is some evidence to suggest that gendered marketing can be effective in encouraging women to pursue IT careers, more research is needed to understand what types of gendered marketing strategies work best and in what contexts. (Oecd.org, 2023)

On the positive side, there are already many organizations that strive to achieve their mission of encouraging more women to pursue IT careers and removing gender stereotypes. One of them is the international non-profit organization "Girls Who Code", which works to close the gender gap in tech through education and opportunities. Founded by Reshma Saujani, the first Indian-American woman to run for U.S. Congress, the organization encourages girls to learn coding and computer science. Saujani is also the author of the bestseller "Brave, Not Perfect", inspiring women to be fearless and take risks. (Girls Who Code, n.d.) Another organization that is dedicated to bridging the gender gap in the tech industry is "Code First Girls". This organization provides free education and job opportunities to those interested in the field. Furthermore, they offer free courses, and graduates often receive job offers from partner companies. (Code First Girls, n.d.) "Code Like a Girl", which strives for gender diversity in Australia, invites partners to join their social enterprise, providing girls and women with coding skills and support. (Code Like a Girl, 2019)

To achieve the goal of the research, the author will study the following:

- The challenges women face while pursuing a career in IT.
- Marketing techniques and initiatives that can help to increase female representation in the field.

The goal of the study is to find ways to mitigate gender stereotypes around women in tech and increase female representation in the field via the use of gendered marketing techniques.

This paper employs a framework based on the AIDA model, which stands for Attention, Interest, Desire, and Action, and was formulated by St. Elmo Lewis in 1898. (Doyle, 2011) To help achieve the main goal of the study, the framework is used for the single-case study that makes up the empirical part of this research. The founder and students at an online female coding school "ITGIRLS" are interviewed to discuss gendered marketing and how it can increase the representation of females in the IT field, as well as the overall situation surrounding women in tech.

This research aims to bridge this gap by exploring various approaches that may be taken to improve the situation and examining how existing policies can be tailored to benefit female

IT professionals. By looking at these various methods, this research seeks to provide tangible solutions that can be implemented to help close the gender gap in IT and ensure that female professionals have greater access to resources and opportunities.

1.1 Research Goals and Research Questions

The main objective of this research is to study a gender-specific approach to marketing in the IT sector and how it can influence consumer behaviour. To achieve this goal, the research aims to identify challenges that women face while pursuing a career in IT, explore gender-specific marketing techniques in the field, and analyze how they can help in mitigating gender biases around women in tech.

The study intends to build a theory about how gender-specific marketing can close the gender gap in IT by designing tailored-made courses for women, thus bridging the gender gap, and breaking through the male-dominated industry. The goal of the study is to understand the challenges women facing in tech, test a theory on gender-specific marketing in IT, and analyze the impact of it on female consumers. Meanwhile, the research's managerial objective is to assist IT firms in understanding how a gender-specific approach to marketing may help them reach more female customers.

The research questions of the study are summarized in the figure below.

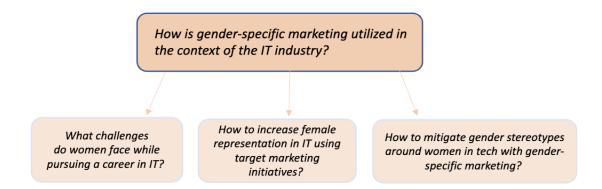


Figure 1. Research questions of the study

The primary research question of this study is formulated as follows:

How is gender-specific marketing utilized in the context of the IT industry?

The further research sub-questions are addressed to accomplish the objectives of this study and serve to further our understanding of gender-specific marketing approaches in the IT sector:

№1. What challenges do women face while pursuing a career in IT?

 N_2 2. How to increase female representation in IT using target marketing initiatives?

№3. How to mitigate gender stereotypes around women in tech with genderspecific marketing?

1.2 Preliminary Literature Review

A preliminary assessment of the literature aims to give a high-level summary of the works that have been published on the major subjects covered in the study. Therefore, this chapter will summarize and identify research gaps from earlier discussions on women in tech, marketing tactics, and other relevant topics to the study.

Women in computing are facing declining participation despite research and programs to increase the numbers. All other science-related fields have seen increased representation. Vitores and Gil-Juárez (2015) present critiques of "leaky pipeline" research and urge reconsideration of assumptions about computing and gender. The "leaky pipeline" is a metaphor that is frequently employed to denote the attrition of women in STEM and, arguably, other areas prior to attaining higher-level positions. (Al Tamime and Weber, 2022) Vitores and Gil-Juárez claim that new perspectives are needed to produce different landscapes for women and computing. The article emphasizes the importance of examining inclusion processes in computing and IT for women rather than simply looking at exclusion factors. It highlights the fact that there is a need to move beyond just understanding why some women enter and remain in these fields and instead focus on understanding how they can not only survive but thrive. For example, research should be conducted to better understand how women are able to find enjoyment and pleasure in computing, often without having to bring their communicative skills or emotions into the field. This is a crucial step in helping to create an environment of inclusion in computing that is free from any sense of exclusion or discrimination. The authors suggest that such research could lead to a better

understanding of how to encourage more women to enter and persist in this field, something that is essential for the future success of the industry (Vitores and Gil-Juárez 2015, pp. 674).

A survey conducted among college students has revealed that lack of interest, feeling unwelcome, and having apprehensions regarding the difficulty of the coursework are factors that may contribute to the disproportionate avoidance of STEM fields among women. (Carrell, Page, and West, 2010) Another research has indicated that the absence of role models such as female teachers and professors in the fields of mathematics and science and the lack of self-confidence related to STEM careers are all contributing factors to the decreased representation of women in STEM careers (Gomez Soler, Abadía Alvarado and Bernal Nisperuza, 2019). A study conducted by Stoet and Geary (2018) has revealed that interest in STEM is a crucial factor to consider; as it has been observed that boys typically demonstrate higher self-belief, greater pleasure in science, and a more extensive curiosity in science than girls.

Research has shown that computing and technical skills are resolute. This frame has been employed to foster a perspective of computing as having an unfavourable reputation, particularly for females, and of technical abilities as something that females or women have more difficulty acquiring. Consequently, technology is perceived as impartial and self-explanatory (Henwood, 2000). It is widely accepted that computing and IT cultures can be perceived as "chilly" environments. To address this, various interventions and strategies have been proposed, with the intention of providing women with metaphorical "sweaters" to help them cope or implementing programs to make the environment more amenable to women. "Computing itself" is not being addressed; instead, the focus is on addressing the "masculine culture" that dominates computing education and work. (Vitores and Gil-Juárez 2015).

Wang and Degol have found that women remain underrepresented in the most mathematics-intensive STEM fields, despite their cognitive strengths. To remedy this disparity, the authors suggest that evidence-based recommendations for policy and practice have to be put into effect in order to increase career options for women. Through their research, they have identified possible biological and sociocultural explanations for the disparities in cognitive and motivational factors between genders. Degol explains that "Several interventions have been found to effectively modify girls' and women's perceptions of STEM. There is still a need to convert research-supported understanding into effective practices" (Wang and

Degol, 2016). By recognizing the potential roots of gender disparity in STEM fields, organizations can start creating more equitable environments that support the academic aspirations of all genders.

G. Sanfelice (2014) elucidated the concept of a "hit with one shot" in relation to target marketing decisions. It was proposed that such decisions require continuing commitments of both tangible and intangible resources to compete effectively within a particular industry segment. His article emphasizes the significance of organizational capabilities and industry structure when making target marketing decisions. Furthermore, insights into industry dynamics can be beneficial in determining which targeting strategy would be most suitable for an organization's abilities. The process by which a company identifies and defines its desired customer base is known as the segmentation-targeting-positioning (STP) process. Having the right marketing capabilities in place can help businesses make informed decisions and target the right audiences.

Kotler and Armstrong (2017), in their book, emphasize the importance of customer involvement and brand experiences in the digital age. They discuss how organizations can leverage the latest digital technologies to create meaningful interactions with customers and deliver impactful brand experiences. Such technologies include things like artificial intelligence, augmented reality, virtual reality, and more. By using these technologies, organizations can create engaging and interactive experiences that enable customers to interact with their brands in a more meaningful way. Furthermore, these technologies can enable organizations to collect valuable customer data that can be used to deliver tailored experiences for each individual customer. Ultimately, leveraging digital technologies has become an essential part of an organization's marketing strategy and is essential for creating successful brand experiences in the modern age.

The literature discussed in this chapter is summarized in the table below.

Author&Year	Focus	Key Findings
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Gomez Soler, Abadía Alvarado & Bernal Nisperuza (2019)	The article analyzes the impact of attending a STEM program on gender-specific achievement in math and reading.	The study finds that the gender gap in achievement increases after college, particularly for women studying STEM majors. The gap is also higher in public and accredited universities.
Kotler and Armstrong (2017)	The authors stress the importance of customer involvement and brand experiences in the digital age, leveraging technology to create engaging experiences and collect customer data for tailored experiences. Leveraging digital technology is essential to marketing strategies.	This book teaches how to create communities of consumers who are loyal to products and brands. The authors use a customervalue framework to explain how to create value and build customer relationships.
Sanfelice, G. (2014)	The paper concentrates on the targeting phase of the STP marketing process due to its strategic significance.	The paper utilizes the framework proposed by Kotler et al. (2012) to illustrate the organizational and industrial influences on targeting decisions.
Vitores, A., & Gil-Juárez, A. (2015)	The research focuses on problems around "women in computing."	The research on the gender gap in computer science is static and primarily constructed around the "leaky pipeline" metaphor.
Wang, MT. and Degol, J.L. (2016)	The paper focuses on gender and motivational factors in math-intensive STEM fields.	Six factors contribute to the lack of female representation in STEM fields, according to a social cognitive perspective: 1.Cognitive ability 2.Relative cognitive strengths 3.Career preferences 4.Lifestyle values 5.Field-specific ability beliefs 6.Gender-related stereotypes and biases.

Table 1. Academic research articles used in the study.

1.3 Theoretical Framework and Key Concepts

The theoretical framework outlines the research's theoretical perspectives. Because this study focuses on a gender-specific approach to marketing in the IT sector, the theories and concepts used are tailored to fit this context.

The literature on marketing, target marketing initiatives, the gender gap in IT, and other related topics is based on the most recent research in the field and consists of journal articles, academic literature, pamphlets, and blog posts. When using a gendered approach to marketing in IT, the AIDA model is applied.

The AIDA model is a marketing, advertising, and sales tool that has been shown to be effective in generating leads and sales. The model is widely used for online marketing strategies by firms of any size (Hassan, Nadzim and Shiratuddin, 2015). It can be applied to any target market, including women in the IT sector. By using the AIDA model, the author aims to gain a better understanding of the customer's decision-making process and tailor the marketing efforts of the company accordingly. This can help to overcome some of the challenges and stereotypes that women face in the IT sector by better understanding their needs and interests.

Overall, the application of a gender-specific marketing approach and the AIDA model are used to provide insights into how companies can tailor their marketing efforts to create a more inclusive and supportive environment for women in tech.

The study introduces the topic of gendered marketing in the IT sector with the aim of increasing female representation in the field. A short definition of each concept is given below.

Marketing

Dr. Philip Kotler has been a renowned figure in the world of marketing for decades, and his definition of marketing is often quoted. To him, marketing is about more than just selling products and services; it's about creating meaningful relationships with customers. It's not just about attracting new customers; it's also about keeping existing ones happy and engaged. By building relationships with customers, businesses can create long-term loyalty

and profitability. Marketing is a strategic process that requires understanding the customer's needs and delivering products or services that meet those needs. It involves a thorough understanding of how to create value for customers to increase sales, build brand recognition, and drive customer loyalty. In other words, it's about engaging customers, managing profitable relationships, and creating value for them to ensure long-term success. (Kotler and Armstrong, 2017) By understanding customer needs, businesses can offer products and services that meet these needs and stay ahead of their competition. In other words, companies should focus on creating an optimal customer experience.

Target Marketing

Targeting is an essential component of marketing success, enabling businesses to focus their efforts on the specific segments so that customers are most likely to respond positively to their products or services. To ensure maximum effectiveness, it is important to tailor a unique value proposition for each customer segment, considering their diverse desires, interests, and buying behaviours. The process of selecting the right customer segment to target is known as target marketing. Target marketing can involve using various types of data to segment the market. Demographic data includes characteristics such as age, gender, and education level, while geographic data considers location and climate. Psychographic data considers lifestyle, values, and beliefs, and behavioural data looks at past buying behaviours and preferences. By collecting this information and using it to segment customers into different groups, businesses can tailor their marketing messages accordingly, increasing the effectiveness of their campaigns. (Sanfelice, 2014)

Gendered Marketing

Businesses commonly use gendered marketing to target particular demographic groups. It relies on traditional gender roles, stereotypes, and language to attract customers. This type of marketing is based on assumptions about the preferences, interests, and behaviours of men and women. In some cases, businesses will use data-driven approaches to create gender-specific marketing campaigns that are tailored to the target demographic. Gendered marketing can be a powerful tool for targeting female consumers. For example, businesses may choose to use images of women in their advertisements or create product designs that are specifically tailored for female customers. Additionally, businesses may also use

language that resonates with female customers to create more effective marketing campaigns. (1&1 IONOS Inc., 2017)

Online Education

It is important to introduce the concept of online education, as the online coding school is the case study of this research. Online learning is education offered electronically via various multimedia, Internet platforms, and applications. (Maddison et al., 2017) It has become increasingly popular in recent years, particularly with the rise of remote learning. This type of education is convenient and flexible, offering students the opportunity to learn from the comfort of their own homes or any other location with an internet connection. It also allows students to study at their own pace without having to adhere to a traditional school schedule.

Information Technology

The field of IT is a vast and rapidly expanding area, it covers a wide range of topics, from hardware and software engineering to telecommunications and network security. IT is also closely related to computer science, which encompasses the principles behind the design, implementation, and maintenance of computer systems. Furthermore, IT involves the development and use of technologies to store, retrieve, transmit, and manipulate data. In today's world, IT is increasingly important in almost all aspects of life, from business operations to entertainment, making it a valuable skill for any professional. (Frankenfield, 2022) With the ever-accelerating pace of technological advancement, IT professionals are in high demand across many industries. Those who have the skills and knowledge to develop, maintain, and manage information systems are more likely to succeed in a competitive job market. As such, studying IT can open a wide range of career possibilities for those who are interested in this field.

1.4 Delimitations

The decision to focus solely on females in this study was taken due to the particular interest the author of this research has in the topic of females in the IT industry. It is a subject that has been under-researched, and the author believes that exploring it further will provide valuable insights into a poorly understood area. This study will attempt to shed

further light on this important issue by focusing on the experiences, challenges, and successes of females within the IT industry, as well as exploring marketing techniques that can be used to increase female representation in the field.

It is also important to note that this study focuses on a coding school that has only Russian-speaking students, meaning that the students at the school are from CIS countries, which currently include Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, and Uzbekistan (cis-legislation.com, n.d.). The choice of this school as a case study is largely due to the author's personal experience while studying there and an overall interest in examining the gender gap in CIS countries. The analysis of the students' backgrounds, opinions, and experiences will provide insight into how the gender gap affects educational opportunities in these countries. Furthermore, by studying the social and cultural influences on educational success in this region, we can gain insights into how different societies can work to bridge the gender gap in IT.

1.5 Research Methodology

The qualitative research method is used to answer the research questions of the study. The data of the research is analyzed using the qualitative content analysis method.

Researchers use qualitative method to collect and analyze non-numerical data, such as text, video, or audio, to gain an understanding of concepts, opinions, or experiences. This method can provide deeper insight into a particular issue or generate new ideas for further research. (Bhandari, 2020)

The founder of the online coding school was interviewed as part of a series of interactions with the school to gain valuable insights into their marketing initiatives. The interview was selected as an appropriate method of data collection due to the founder's extensive entrepreneurial background and experience in operating the female coding school. Therefore, an online face-to-face interview was conducted to gain a better understanding of the goals and strategies of the school. This interview provided the opportunity for direct dialogue with the founder and allowed for a comprehensive exploration into how the school is marketing itself to potential students. The data collected from this interview will

be utilized to provide other organizations with the insights into various gender-specific marketing strategies, with the aim of encouraging more women to enter the IT sector.

The survey conducted in this paper is a qualitative tool designed to gather customer feedback on the female coding school "ITGIRLS" and its effectiveness in marketing. The survey utilizes open-ended questions to analyze student preferences and determine the most successful marketing techniques from the perspective of the target audience. To collect data, an online questionnaire was utilized, and 83 students participated in the survey. The results of this survey can provide valuable insights into how IT firms can better market their services, ultimately leading to increased female participation and greater success.

1.6 Structure of the Study

This chapter defines the structure of the study. The research mainly consists of theoretical and empirical parts, which are divided into chapters. The paper has five chapters in total. Figure 2 shows the structure of this research.

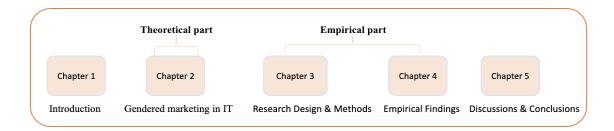


Figure 2. Structure of the study

The research questions and preliminary literature review are presented in the first chapter, which also introduces the main subject of the study. Additionally, it includes an explanation of the key concepts discussed in the work as well as the theoretical context for those notions. Furthermore, the delimitations and the research methodology employed in the study are explained in this chapter.

The theoretical part is covered in the second chapter. It focuses on describing the academic literature on the gender gap in the IT sector and marketing techniques and initiatives that can be implemented in the field. This chapter discusses key ideas related to gendered marketing

and examines how businesses may use it to increase the number of female customers and close the gender gap in the sector. The second chapter also discusses the difficulties faced by women in tech as well as the advantages and effects of implementing a gender-specific marketing approach.

The empirical part is presented in chapters three and four. The research methodology, the study's setting, the data collection method, and the data analysis are all described in detail in Chapter 3, which gives a general summary of the research process. The case company is introduced in Chapter 4, along with its findings.

The summary of the findings is outlined in the final chapter. Furthermore, explored in this chapter are the research's theoretical and management implications. This chapter also outlines the limitations of the study and the ideas for the future research.

2. Literature Review

This chapter elucidates the fundamental definitions and notions employed in this paper and furnishes an overview of the prior research conducted in the fields of marketing, customer relationship building, gender gap in IT, and the challenges encountered by women in tech.

2.1 Gender gap in STEM fields

Vitores and Gil-Juárez (2015), in their article, discuss the "leaky pipeline" metaphor used to explain the under-representation of women in computing and STEM fields and identify factors that cause women to drop out over different educational stages of the pipeline. Research has primarily focused on identifying factors that cause women to drop out at different stages of the pipeline, from high school computing courses to the academic world of IT. The pipeline model has revealed that fewer women are present as we move further along the pipeline and that women "leak" from the pipeline more than men at each transition point. They suggest that different research approaches are needed to problematize assumptions about computing and gender and to explore alternative landscapes of women and computing.

Research has indicated a significant amount of disparity across nations in terms of the proportion of males to females in computing and Information and Communication Technologies (ICTs). A number of studies conducted in non-western countries have revealed higher proportions of female students and professionals in these areas. Examples of such studies include those conducted in Afghanistan, Armenia, and Mauritius. However, the most documented cases of female participation in computer science have been observed in India and Malaysia. In particular, India has witnessed a remarkable increase in women taking up a bachelor's degree in computer science, with the field being regarded as "woman friendly." (Vitores and Gil-Juárez 2015, pp. 672–673) About 40% of students in India studying computer science and related specialties are women. Indian women see programming as a safe job that allows them to be indoors, thus reducing the risk of sexual harassment on the street. (Clive Thompson, 2019) Interestingly enough, despite the patriarchal prevalence in CIS countries, the gender gap in the IT field there does not exceed the gap in the West, for instance. "In the CIS countries, surprisingly, the gender gap in IT is even less because many women used to work as engineers back in the Soviet Union. In the West, only 10% of girls go to technical universities, and in CIS countries, it is 20% of females who decide to pursue a career in tech" (Kurtz, 2023).

In the last decade, we have been observing a resurgence of feminist voices in marketing and consumer research, especially among younger scholars. This interest was ignited by the acknowledgment that, from a structural standpoint, little has altered; women are still earning less than men for the same work and are still conspicuously absent from boardrooms and senior positions. Movements such as #metoo and #timesup have further fuelled this interest, alongside recent feminist scholarship that critiques the role of the market in appropriating feminist messages of empowerment. Within marketing, the focus on gender (in)justice has intensified, with studies revealing insights about the market status of women's empowerment and global gender asymmetries in marketing and consumer behaviour. Even initiatives designed to do good, such as social marketing campaigns or fair-trade schemes, may be misaligned with the realities of producers and consumers in emerging economies. This has prompted renewed calls to make gender visible and to identify gender power within heteronormativity, racialization, embodiments, spatializations, virtualizations, and transnationalizations — all fields of increasing relevance to markets. (Maclaran and Chatzidakis, 2022)

Economist Dr. Catherine Tucker from the Massachusetts Institute of Technology (MIT) and marketing professor Dr. Anja Lambrecht of the London Business School recently conducted a study that revealed that women receive fewer ads related to STEM careers than men (Lambrecht and Tucker, 2016). Tucker and Lambrecht designed an advertisement to be gender-neutral and ran it on various social platforms such as Facebook, Instagram, and Twitter, as well as Google's ad distribution network. This resulted in 20 percent fewer women being exposed to the ad than men. The algorithm mismatch is because women in the target age range have more purchasing power than men; thus, the cost per click for women is US\$ 0.01 greater, based on US\$ 181 worth of advertising reviewed on Google. According to the initial report, "younger women are a prized demographic and are more expensive to show ads to," and advertising algorithms are meant to optimize the cost-effectiveness of commercials so that the greatest number of people see them.

The study, which primarily concentrated on the United States, also included a Facebook experiment that was conducted in 191 countries. Results showed that the cost per click for women was marginally higher than that for men. Although this difference may seem insignificant, it can accumulate quickly when one considers the magnitude of the targeted audience. Scientific American (Maron, n.d.) reported that Tucker proposed that this issue could be resolved by launching separate campaigns for men and women; however, this would be in contravention of anti-discrimination regulations. Additionally, there are other factors contributing to the disproportionate number of men in STEM jobs, such as academic culture and the stigma attached to failure. (Dunphy, 2018)

2.2 Definition of Marketing

Marketing is a business function that aims to attract new customers by providing superior value and ensuring the satisfaction of existing customers. The goal is to manage profitable customer relationships. Companies like Nike, Amazon, Facebook, and Coca-Cola have succeeded in marketing by delivering on their promises and fulfilling their customers' needs. Nike inspires athletes, Amazon provides a world-class online buying experience, Facebook helps people connect and share, and Coca-Cola dominates the carbonated beverage market. (Kotler and Armstrong, 2017)

Kotler's marketing principles stress the importance of understanding and anticipating customer needs. He believes that by doing so, businesses can create long-term relationships with customers and increase their loyalty. For example, businesses can use customer feedback to identify opportunities for improvement in their products or services. This is an essential step for companies looking to stay ahead of the competition and grow their customer base. According to the author, the core of every successful marketing principle is satisfying customer needs. As such, it is important for businesses to focus on the customer journey and tailor their strategies in line with the different stages of this journey. From the initial awareness stage to conversion and retention, companies should create strategies that are specifically tailored to each stage to maximize customer satisfaction and loyalty. (Kotler and Armstrong, 2017)

Dave Chaffey (2020) in his article discusses the importance of developing a unique online value proposition (OVP) for target audiences rather than simply replicating the existing service proposition or brand guarantee accessible through offline channels. The author provides practical examples and outlines the factors contributing to the development of an effective online value proposition. The benefits of having a clear OVP include distinguishing an e-commerce site from its rivals, providing a focus for marketing efforts, and meeting customer expectations. By accurately identifying the needs of customers and formulating a unique value proposition that is communicated in a consistent manner, businesses can differentiate themselves from their competitors, provide a clear direction for their marketing endeavours, and construct a robust brand that is able to deliver value. The article also suggests using the mnemonic "Six Cs" to help formulate the OVP, which includes content, context, customization, communication, community, and commerce.

2.3 Marketing Initiatives and Techniques aimed to support women in tech

It is an undeniable fact that the gender gap in the IT industry has existed for quite some time. Despite numerous studies on this topic, there are still very few practical solutions to help close this gap and create a more equitable environment for female professionals in IT.

From networking and digital marketing to leveraging sponsorships and creating content, there are numerous methods that can be used to promote and advance women in the tech industry. Networking is an effective way to build relationships with potential employers

and collaborators. LinkedIn, Twitter, and other social media platforms can be used to connect with females in the tech world, share experiences and resources, or even find a mentor. Digital marketing is another powerful tool that can help organizations attract more women into the tech field. This includes creating websites, optimizing content for search engines, and setting up email campaigns. Additionally, sponsorships of conferences and events can provide women with valuable exposure while supporting diversity in the tech industry. Finally, content creation, such as blog posts or podcasts, can help spread knowledge while raising awareness of women's contributions to the field. By utilizing these marketing techniques, women in tech will have more opportunities to succeed and make a lasting impact on the industry. Below are some examples of initiatives that can be helpful in supporting women in tech.

2.3.1 Targeting and Gendered marketing

When making decisions regarding which customer segments to target, companies must consider the underlying factors that shape the industry structure in which they are operating. This is of paramount importance, as industry structure influences competition and, ultimately, business success. The five forces model, first introduced by Michael Porter in 1979 and updated in 2008, is a beneficial framework for analyzing industry structure and informing target marketing decisions. Selecting the right target market is essential for effective marketing decisions. Factors such as sales volume, market size, profitability, competition, and the organization's capability to build are all important criteria for target selection. Sanfelice (2014) emphasizes the significance of differentiating a company's value offering to gain a competitive advantage and ensure a fit with the business strategy and organizational strengths. It references Porter's theory, which emphasizes the need to create a distinctive and hard-to-replicate value offering, leading to a competitive position with high barriers to entry and the capacity to build a competitive advantage. (Sanfelice, 2014)

In the context of encouraging women to pursue STEM careers, gendered marketing can be an effective tool to counteract gender stereotypes and encourage women to consider IT careers. It was found that gender-neutral advertising was less effective in encouraging women to pursue STEM careers than gender-targeted advertising. (Maron, n.d.)

However, gendered marketing can also be damaging, as it can perpetuate outdated gender stereotypes and reinforce rigid gender norms (Stewart et al., 2021). Therefore, it is important to ensure that gendered marketing is done in a way that challenges gender stereotypes and promotes gender equality. While gendered marketing may be effective in the short term, it is unclear whether it can lead to long-term changes in attitudes and behaviours. Thus, it is important to complement gendered marketing with other strategies, such as education and training programs, to ensure that women can succeed in IT careers.

Overall, gender-specific marketing can be an effective way to attract more women to the IT industry. By understanding the unique needs and motivations of women and developing targeted marketing messages, companies can create more diverse and inclusive workplaces that attract and retain talented women in the IT sector.

2.3.2 AIDA Marketing Funnel

A marketing funnel outlines the interaction between the business and its customers. It starts from the moment a customer learns about the business and ends when they use the product or service and recommend it to others. It is necessary to progress through each stage of the AIDA model to achieve the desired outcome. It has been observed that there is a propensity for individuals to discontinue their progression at each stage of the funnel, resulting in a decrease in the number of customers at each level in comparison to the preceding one. (Sellers, 2021)

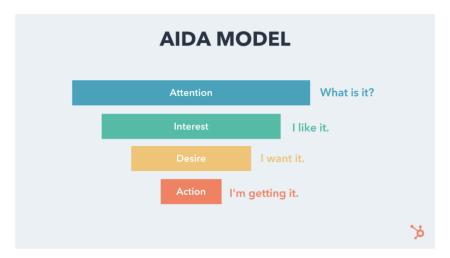


Figure 3. AIDA Model (Sellers, 2021)

To further understand the AIDA model and its application to social media marketing, it is important to look at each of the three stages in more detail. At the top of the funnel stage, potential customers become aware of the issue that the business can solve. This can be done through various methods, such as running ads on social media or creating content that educates people about the issue and the solutions that are available. In the middle of the funnel stage, potential customers research their options and weigh their choices to determine which solution will best suit their needs. This involves providing detailed information about what the business has to offer and why it is better than other competitors in the market. Lastly, at the bottom of the funnel stage, prospects make a decision and become customers. This involves providing incentives or special offers to encourage them to make a purchase decision. (Sellers, 2021)

The example of an online language school described above can be applied to any online business, including an online coding school, which is the case company of this study. However, the classic funnel approach may not be appropriate in this type of digital environment. Instead, students should be able to start getting value from the platform right away, - whether it is through a learning simulation game, a call with a teacher, or any other form of interaction. Reducing the time to value is essential for any successful online coding school, as this will be a major factor in determining its success or failure. In addition, providing engaging and interactive content is paramount to ensuring student engagement and satisfaction. This could involve providing tutorials, quizzes, and exercises to help reinforce learning. Additionally, feedback and progress tracking should be provided to help keep students motivated and on track with their learning goals. Automating the sales funnel through a marketing strategy is hugely important for the growth of online schools, as competition can be strong. Traditional language schools and newer "click-andmortar" schools have had to adjust their business models due to the increase in virtual language programs and competition in the market. Marketing funnels, which describe a customer's journey with a business from awareness to purchase and beyond, are key tools to attract and retain students. Moreover, it is important to keep existing students engaged and turn them into brand ambassadors who will further promote the school. This leads to higher student satisfaction and better results in class, as well as retention, referrals, and a steady income for online schools. (www.edugo.ai, n.d.) There is a need for more research into how best to apply the AIDA model to social media marketing to maximize its

effectiveness and ensure that businesses reach their desired target audience. By understanding each stage of the AIDA model, businesses can create targeted strategies that will ensure maximum conversion rates and customer satisfaction.

2.3.3 Leveraging Social Media

Digital marketing can be an invaluable tool for organizations looking to increase their outreach to female tech professionals. Through a combination of website creation, search engine optimization, and email campaigns, companies can ensure that their message reaches the widest possible audience. Additionally, social media platforms such as Twitter and Facebook can be used to showcase the benefits of the organization or tech field, as well as to promote job opportunities and other content. By leveraging digital marketing platforms, organizations can reach a larger and more diverse audience of potential female tech professionals. (Alexander, 2022)

Social media has become an integral part of modern life, and marketers have been quick to capitalize on its potential. Social media is any platform or medium that allows users to interact with each other and share content. This could include anything from text-based platforms such as Twitter and Facebook to multimedia-driven sites like Instagram and YouTube. Social media is a powerful tool for marketing activities and can be used to promote female-friendly initiatives in the company, highlight success stories of women in IT, and share relevant industry news and events. For example, LinkedIn is an excellent platform to share job postings and success stories of female employees, while Twitter can be used to spread the word about upcoming events and industry news. Additionally, Facebook can be used to create communities and engage with potential customers. (Lutkevich, 2021) By leveraging these platforms, companies can not only increase their reach but also make their brand more appealing to prospective female customers. Moreover, it's a great way to show how a company values diversity and is committed to ensuring an equal playing field for all genders.

Interactive and high-quality content is essential in online marketing. It emphasizes the need for unique and detailed information that supports the buying process or product usage. This type of content should be designed to capture the attention of consumers and keep them engaged. It should also be tailored to each specific audience, as this will help ensure that

the content is relevant and resonates with them. Furthermore, it should be easy to understand and help guide customers through the decision-making process. Content can come in many different forms such as blogs, videos, podcasts, infographics, e-books, etc. A combination of these formats can help create engaging and informative content that encourages customers to act. Ultimately, high-quality content is an invaluable part of any online marketing strategy, so it's important to ensure that it meets the needs of target audiences and helps them make informed decisions. (Chaffey, 2020)

In addition, content creation is a powerful way to spread knowledge and raise awareness of the incredible contributions women have made to the field. Blog posts, podcasts, and social media can all be used to highlight the accomplishments of female leaders and innovators. Not only is this an effective way to educate, but it can also help dispel myths and stereotypes about women in the workplace. Furthermore, by providing tangible evidence of women's successes, it can help inspire other women to pursue their dreams and goals in the field. There is no better time than now for content creators to use their platforms to celebrate the achievements of women in tech.

2.3.4 Showcasing female role models in the field

Wang and Degol (2016) discussed the negative impact of stereotypes on women's abilities in STEM fields. It has been observed that stereotypes can have a significant impact on the way individuals think, behave, and feel about their own capabilities as well as those of others. To counteract these derogatory stereotypes, the accomplishments of women in STEM should be brought to light. Teachers and parents can convey the message that there is no disparity between the achievements of men and women in STEM disciplines and that more women are entering and becoming successful in STEM fields. The media should create more positive portrayals of female professionals in STEM fields, such as through TV shows, movies, advertisements, and articles. Moreover, it is essential to show more female role models in STEM fields to encourage girls and women to pursue careers in these areas. It is essential to have female role models to foster positive attitudes towards STEM careers among girls and women. Seeing successful female professionals in STEM can show young girls that they too can achieve great things in the field. Role models can also provide support and guidance, which is invaluable for young girls who are considering

a career in a male-dominated field. The lack of female peers, colleagues, and mentors in STEM fields can also discourage women from pursuing these careers. Studies have shown that the lack of visible female role models in male-dominated fields has a negative impact on the self-confidence of young girls. Exposure to successful female role models in STEM can help girls challenge the stereotype that these career paths are only for men while also providing them with a source of inspiration to persevere through the difficulties they may face as they pursue their dreams. (Wang and Degol, 2016)

2.3.5 Promoting diversity and inclusivity

Despite many organizations claiming to be committed to diversity, equity, and inclusion (DEI), women are still not achieving the highest echelons of technology leadership. Mojgan Lefebvre, chief technology and operations officer at Travelers, credits her career success to having an ally who gave her high-visibility projects. Allyship is the practice of comprehending the experiences of those who are systemically disadvantaged, recognizing any potential biases, and utilizing one's voice and influence to promote equity in all interactions. To facilitate meaningful and long-lasting change, allyship should be an ongoing process and deeply entrenched within a company's culture. IT leaders can utilize the following six strategies to promote allyship in the workplace and generate more opportunities for women in the technology sector: lead with courage and compassion, open the aperture for tech talent, prioritize inclusivity and tie it to performance, secure commitment from leadership, commit to learning and unlearning, and make each day count. Allyship is a critical part of creating an environment where women can thrive in the field of technology. It is a lifelong practice of demonstrating an understanding of the experiences of systemically disadvantaged groups, being aware of potential biases, and utilizing one's voice and power to promote equity in all interactions. (Prabhakar, n.d.)

Promoting diversity and inclusivity is essential for any successful marketing strategy. Companies must go beyond simply stating their commitment to inclusivity but demonstrate that they are actively taking steps to create an environment where all employees feel valued and respected. This could include highlighting the company's initiatives to create a supportive workplace for women, introducing female role models within the organization, and providing resources to allow women to reach their full potential. Additionally,

companies should strive to ensure that their products, services, and marketing materials reflect the diversity of their customers. (Brodzik et al., 2021) By doing so, they can create a strong connection with consumers that resonates with their values of inclusivity and respect. Ultimately, this will help build trust and credibility with customers while also increasing productivity and morale among employees.

Sponsorships of conferences and events can provide women with an invaluable opportunity to share their knowledge and experiences while also helping to promote diversity in the tech industry. Not only does this create a more inclusive environment for all, but it can also serve as a powerful platform for women to showcase their skills and expertise. Sponsored events can also help foster increased collaboration and networking opportunities among the different members of the tech community. By creating a more diverse and supportive space, sponsorships of conferences and events can help ensure that everyone has access to the same resources, regardless of gender identity. Ultimately, these sponsorships are an important step in helping to create an environment where all individuals are respected and valued for their contributions to the tech industry. (Radulovski, n.d.)

2.3.6 Programs for women in tech and the power of networking

There are many initiatives being taken to break down the gender stereotypes that exist in the tech industry. These initiatives have been found to be highly beneficial, helping to create an atmosphere that encourages and promotes diversity and inclusion. For example, Deloitte introduced its Women in Tech program, where they examine the impact women are making, recognize measures to cultivate diverse and inclusive IT environments, and promote career advancement for prominent women in tech. (Deloitte United States, n.d.)

Networking is an invaluable tool for expanding one's professional network and building relationships with potential employers and collaborators. Additionally, attending industry events, conferences, and seminars can be a great way to meet people in the field and foster meaningful connections that could lead to future job opportunities. Moreover, joining professional organizations or groups related to your area of interest can be beneficial in helping you learn more about the industry while also providing an opportunity to make

valuable contacts. Finally, networking is an ongoing process that requires dedication and effort to cultivate relationships and reap the benefits. (Cole, 2019)

However, there is still much work to be done to further increase the number of women in tech. To this end, it is essential that more companies and IT schools create initiatives that can help bridge the gap between men and women in tech. These initiatives should focus on providing women with access to educational resources, mentorship opportunities, and career advancement paths that are traditionally more accessible for men. Additionally, creating a supportive environment for female employees should be a priority for all organizations to ensure that women feel safe and empowered to pursue their ambitions in the tech industry.

3. Research Design and Methods

This chapter elucidates the methodology employed in this study. The initial sub-chapter introduces the case and the focus of the study. Subsequent sub-chapters elaborate on the data collection and data analysis processes. Lastly, the chapter concludes with a discussion of the reliability and validity of the study.

3.1 Research Context

This research is explanatory in nature and uses an inductive approach. Inductive reasoning is the process of forming general conclusions based on specific observations. (Bhandari, 2022) Explanatory research endeavours to elucidate the origins and effects of a clearly defined issue. It can be utilized to enhance one's comprehension of a particular subject, ascertain the cause of a phenomenon, and forecast potential future occurrences. Additionally, explanatory research can be described as a "cause and effect" model, exploring patterns and tendencies in existing data that have yet to be studied. Therefore, it is frequently classified as a form of causal research. (George and Merkus, 2021)

This paper utilizes an online female coding school as a case study to examine how marketing through a gender-specific approach can be used to reach more female consumers and help decrease the gender gap in the IT sector. The author will analyze the factors that influence

female consumers' decision to enroll in coding courses, including their attitudes towards technology, career aspirations, and social pressures.

"ITGIRLS" is an online coding school for females. The mission of the school is to make the IT field accessible for females and decrease the gender gap in the field. The school provides not only an educational coding platform but also a community with mentors, seminars, workshops with IT professionals, job search and interview tips. It was founded in 2020, and now there are almost 600 female students getting their IT education online. (itgirlschool.com, n.d.) Alice, the founder of an online female coding school, earned a degree in programming and developed the concept for the school while participating in an entrepreneurship initiative that required students to create a social project. She proposed an online school for women in coding, drawing from her own experience that many women seek greater independence and that education in IT can help them attain it, given that most IT positions are remote. Subsequently, she enrolled in a business school and crafted a business plan for her school within six months. (Kurtz, 2023)

3.2 Data Collection

This study was carried out utilizing a data gathered through a qualitative method via a semi-structured, or theme, interview, and a survey.

Data collection is a fundamental step in carrying out any research project, regardless of its purpose. It involves gathering relevant information and data to answer the research questions. The data can be collected in various ways, such as surveys, experiments, interviews, focus groups, and observations. This data may then be analyzed and interpreted to draw meaningful conclusions. It is important to ensure the accuracy and validity of the data collected through appropriate methods and procedures. Furthermore, ethical considerations such as informed consent must be considered when conducting research involving human participants. Data collection is a vital part of the research process and has the potential to produce valuable insights into a given research problem or question. (Bhandari, 2020)

Theme interviews are an invaluable tool in qualitative research and are widely used due to their flexibility. They allow researchers to explore topics in greater depth as well as introduce new ones. A theme interview, often called a semi-structured interview, typically begins with a pre-defined set of questions or themes; however, the researcher is then able to ask additional questions based on the answers given by the participant. This provides an opportunity for the researcher to gain a deeper understanding of the topic. (George, 2022) This study utilizes this method of data collection, and this was a suitable choice for the research undertaken. The interview with the school's founder, Alice Kurtz, took place online on March 18th, 2023, via Zoom. Alice was asked 12 questions, which can be found in Appendix 1, but only the main points from the questions are covered in the Empirical Findings chapter of the research.

Surveys are a versatile tool for data collection that can be utilized in a variety of research contexts. To conduct an effective survey, researchers should determine the population and sample, select the type of survey, formulate the survey question, distribute the survey, evaluate the responses, and compile the results. Closed-ended questions are best for quantitative research, while open-ended questions are best for qualitative research. (McCombes, 2019) This study utilized open-ended questions in the survey, which is a qualitative research method. 83 students answered the questionnaire, which is 16% of the total number of respondents. Questions for the survey can be found in Appendix 2. The number of responses to some questions is higher than the number of respondents because some students gave multiple answers to the questions.

3.3 Data Analysis

It is commonplace in qualitative methods for data analysis and data collection to be intertwined, as an iterative process is typically employed wherein the researcher initiates informal analyses during the data-gathering stage. These initial thoughts and interpretations may influence the subsequent data collection process as working hypotheses are investigated through modifications in the questions asked and the inclusion of additional participants and types of data collected. Such additional data may then influence the ongoing analytic process. At a more advanced stage in the data collection process, the researcher will commence a more thorough analysis (detailed later), which is beneficial in determining the point at which data collection should be terminated. (Jason and Glenwick, 2016)

Following the completion of an online video call interview, the data was transcribed into a Word document. To gain further insight, the qualitative content analysis method was employed. Content analysis is a research technique utilized to detect patterns in documented communication, which can be both quantitative and qualitative, and can be employed to comprehend the objectives, messages, and impacts of communication content. The advantages of this type of analysis include unobtrusive data collection, transparency, replicability, and flexibility, while the disadvantages include being reductive, subjective, and time intensive. To successfully carry out content analysis, it is essential to commence with a precise research question and adhere to a five-step process. This process entails choosing the content to be analyzed, specifying the units and categories of analysis, formulating a set of rules for coding, coding the text in accordance with the rules, evaluating the results, and drawing the end results. (Luo, 2019)

3.4 Reliability and Validity

Reliability and validity are two important concepts utilized to assess the quality of research. Reliability refers to the consistency of a measure, which is determined by measuring the same thing several times and determining whether there is a consistent result. On the other hand, validity refers to the accuracy of a measure, which is determined by comparing it with other results or validated measures. These concepts are used to evaluate the reliability and accuracy of a method, technique, or test, to ensure that any research conducted using these methods is valid and reliable. It is imperative to take reliability and validity into account when constructing a research design, formulating methods, and documenting results, particularly in quantitative research. Failure to do so can lead to various types of research bias, which can have an adverse effect on the work. (Middleton, 2019)

The interview with the founder of the school was conducted in a professional manner, allowing for an insightful and comprehensive exploration of the topic at hand. All questions were carefully formulated to gain a deeper understanding of the individual's experience, motivations, and views. Clear explanations were given for each query asked, ensuring that all participants had an equal understanding of the discussion. The interviewee was provided with ample opportunity to respond to all questions, allowing them to articulate their thoughts

in full. This process allowed for a thorough exchange of ideas, resulting in a more complete picture of the individual's experiences and beliefs.

The questions in the survey were carefully designed to ensure precision and clarity. This was achieved through a comprehensive literature review, market research, and the author's own experience studying at the particular online coding school. To ensure the survey was as accurate as possible, the author sought the expertise of several professionals within their network, as well as their thesis supervisor, to review and revise the questions. Additionally, all questions were interrelated and connected to those of the interview, thereby enhancing the reliability of this method.

4. Empirical Findings

This chapter presents the results of the research and the insights gained from the qualitative data collected. The author will explore the results of the survey, interview, and other forms of data collection to gain a better understanding of the topics under study. The author will also use this information to interpret the findings of the study and provide potential solutions to the issues that were identified.

4.1 Questionnaire and Interview Results

4.1.1 Research sub-question №1

What challenges do women face while pursuing a career in IT?

Q11. Stereotypes and misconceptions associated with women in IT.

Most of the respondents agreed that there are many stereotypes and misconceptions associated with women in IT. For example, there is the outdated notion that girls are not good at math, logic, or exact science. This couldn't be farther from the truth; many women have gone on to excel in these fields and have become successful in IT-related fields.

Additionally, it was also mentioned that women are less stress-resistant than men and more focused on starting a family, which means they will not stay with the company for long. However, this overlooks the fact that many women can juggle both family and work commitments successfully.

In fact, studies have shown that women often bring unique skills to the table, such as higher emotional intelligence, which can be beneficial for both short-term and long-term projects (Fischer, Kret, and Broekens, 2018). These stereotypes and misconceptions about women in IT need to be addressed. By embracing the contributions of all genders within the tech industry, we can create a more inclusive environment and encourage more people, regardless of gender, - to enter IT-related fields. Table 2 represents the answers to Question 11 of the survey.

Responses	№ of responses
Respondents who believe there are many stereotypes associated with women in IT	64
Respondents who do not believe there are many stereotypes associated with women in IT	10
Respondents who found it difficult to answer	9

Table 2. Responses to Q11

Q6. Discrimination based on gender in the IT industry - does it exist or not?

Interestingly, out of the 83 respondents surveyed, 58 reported that they had never felt discouraged or excluded because of their gender while studying or working in the IT industry. This is a positive indication showing that there is an encouraging environment for women in the tech industry. However, 25 respondents shared that they had experienced some form of discouragement or exclusion due to their gender. This highlights the need for more efforts to ensure that all genders are given equal opportunities and treated with respect in IT workplaces. Companies and organizations must continue to strive for a tech industry that provides an inclusive and welcoming space for all genders. Table 3 represents the answers to Question 6 of the survey.

Statement	№ of responses
Respondents who do not feel excluded because of their gender while pursuing studies or working in the IT industry	58
Respondents who feel excluded because of their gender while pursuing studies or working in the IT industry	25

Table 3. Responses to Q6

Q5. The stigma around the field - does it exist or not?

Most of the females did not think that IT professions were exclusively for males. However, many thought that the field is complex and difficult regardless of gender and had not even considered such a career path until they discovered Alice's Telegram channel. On her Telegram channel Alice was sharing about programming and women in tech, inspiring many to investigate the profession further.

34 respondents stated that they believed that the profession was mostly for men because of the media's portrayal of IT professions. This further reinforced the idea that only men could work in this field, regardless of their own views. Some respondents reported feeling pressure from those around them to believe that only men could succeed in these roles, yet many refused to accept this outdated notion. Table 4 represents the answers to Question 5 of the survey.

Statement	№ of responses
Respondents who think that IT professions are exclusively for males	40
Respondents who do not think that IT professions are exclusively for males	34
Respondents who found it difficult to answer	9

Table 4. Responses to Q5

Q4. Are there enough opportunities for women in IT?

It appears that most students agree that there are enough opportunities for women in IT. According to a survey of 83 students, an overwhelming majority of 66 respondents reported that they believe there are adequate opportunities available. Only 17 students disagreed, indicating that they do not feel that women have enough opportunities in the field. This is encouraging news for female tech professionals, as it suggests that more and more companies are recognizing the value of having a diverse workforce. Women bring unique skills, perspectives, and experiences to the IT sector and can make valuable contributions to businesses. It is also great to see that students are aware of the importance of gender equality in the workplace and are supportive of the growth and success of female tech workers. Table 5 represents the answers to Question 4 of the survey.

Statement	№ of responses
Enough opportunities for women in IT	66
Not enough opportunities for women in IT	17

Table 5. Responses to Q4

Q1. Motivation to pursue a career in IT.

In response to Question 1 of the survey, students delivered broad responses in which they expressed their opinions and even shared some personal experiences. Most females decided to pursue a career in IT due to desire to become more independent, with the ability to have a remote job and a flexible schedule. Additionally, many of the respondents claimed that they were dissatisfied with their current job, suggesting that the potential for an IT career was an attractive alternative. Further, a portion of those surveyed expressed an interest in technology-related topics, making it a natural choice for them. A few students discussed their lack of confidence in their abilities due to the perception that men are better than women in this industry; however, they decided to defy this stereotype and enter the field anyway. Lastly, some women acknowledged that their decision was driven by a need to find a work abroad due to unstable situation in their country. Many admitted that there is a lack of opportunities for work with their current degrees. Table 6 lists the reasons students chose to pursue a career in IT.

Reason	№ of responses
Remote work, demanding field, flexible schedules, and relocation	21
Dissatisfaction with the current job	18
Interest in all tech-related things	17
Stability and financial independence	14
To keep up with the times, stay competitive in the market, and embrace new technologies	10
The idea of changing and improving life completely, to try something new	3
The desire to break stereotypes that IT is exclusively for males	3
The unstable situation in the country	3
No possibility of finding work abroad with the current degree	2

Table 6. Responses to Q1

The results of this question showed the following:

- Many female students pursue a career in IT for the flexibility and independence it offers.
- Dissatisfaction with current jobs is a common reason for women to consider a career in IT.
- Some women enter the field despite feeling insecure about their abilities due to gender stereotypes.

4.1.2 Research sub-question №2

How to increase female representation in IT using various marketing techniques?

In the interview, Alice shared that initially she started a Telegram channel where she would share IT-related topics using very simple terms and enable advertising to attract an audience. She then announced an open webinar where people could register for free, watch a presentation, hear more about the school, and even try out some basic coding online. Alice proudly stated, "Twelve people attended the first webinar, and one girl bought the course; I've started running the school." (Kurtz, 2023).

Alice introduced the webinar and attracted students through email registration, yet only a few attended it. Realizing that a newsletter reminder via email was not effective, she created a chatbot and added an SMS reminder option, which dramatically increased the rate of webinar participants. The school also uses influencer marketing, which works best. They collaborate with bloggers who advertise Alice's personal Instagram account or a free webinar with an open coding session. Alice's example on the webinar inspires girls to start believing in themselves and removes their fear of the "male-dominated" field (Kurtz, 2023).

"ITGIRLS" uses the tried and tested AIDA marketing funnel to reach out to potential students. The funnel consists of various stages, such as Attention, Interest, Desire, and Action. Through each stage, "ITGIRLS" targets students with increasingly personalized messaging to increase their knowledge of the school and entice them to enroll. For example, "ITGIRLS" may initially draw attention of a student with an eye-catching advertisement about their school, followed by providing more information about their courses and the benefits of being a student there. The goal is to ultimately generate enough desire for a student to take the necessary action and enroll. Therefore, "ITGIRLS" utilizes the AIDA funnel to effectively target potential students and get them through the door. Below is an example of the marketing funnel, employed by the school:

A student Maria saw an advertisement on a Telegram channel that offered an online IT course specifically designed for women and knew it could help her achieve her dream of becoming an IT professional. Intrigued, she considered the idea of a female-oriented course that could provide her with the same professional benefits as a traditional school but in a more supportive environment. After attending a free webinar and finding out more about the course, she decided to buy it and take the leap towards her dream career.

Through this example, it is evident that "ITGIRLS" has found a way to successfully use the AIDA marketing funnel to reach their target audience.

Q2. Social media channels as new search engine tools.

Most respondents discovered the school through targeted advertising or recommendations on Instagram. 13 students encountered "ITGIRLS" in Telegram, where they first learned about the free coding webinar. Influencer marketing has also played an important role in attracting students; 8 females discovered the school through advertisements from bloggers they follow. The rest of the participants heard about the school from a friend, knew the school's founder, Alice, discovered it on YouTube, and two girls found it in one feminist community. Table 7 below lists the sources through which students found the school.

Social media and other sources of information	№ of responses
Instagram	38
Telegram	13
Bloggers	8
Recommendation of a friend	8
Alice's podcast	3
Internet search	3
Other	10

Table 7. Responses to Q2

Q8. Benefits of targeted marketing to females in IT.

The findings of this survey suggest that female-targeted marketing could be an effective tool for encouraging more women to pursue careers in the IT industry. Of the respondents, an overwhelming majority (95%) agreed that female-targeted marketing could help draw more women into the field. Only five respondents disagreed with the benefits of targeted marketing to females in IT. Thus, this type of marketing strategy has the potential to make a real difference in terms of inspiring more women to pursue a career in IT and should be

considered by those in the industry. Table 8 represents the answers to Question 8 of the survey.

Responses	№ of responses
Respondents who agree that targeted marketing to females can help attract more women to the IT industry	78
Respondents who do not agree that targeted marketing to females can help attract more women to the IT industry	5

Table 8. Responses to Q8

Q9. Experience of the respondents with targeted advertisements aimed at attracting women to IT.

46 respondents had never received targeted ads, while 37 women had, with 26 females specifically receiving them from "ITGIRLS." The results of the survey helped provide insight into the potential impact that targeted advertising has on female students interested in IT. Here are some of the students' perspectives: "I started to pay more attention to IT after seeing more women in tech, since it gives me more confidence to enter the field" (Survey respondent, 2023). Another student commented: "I have not received a targeted advertising; however, I believe that such advertisements can boost women's confidence and gradually fade the stereotypes surrounding women in tech" (Survey respondent, 2023). One of the respondents who did receive targeted advertisement said: "I mostly encountered targeted advertisements for nutrition and training. This method appears to be quite effective to me" (Survey respondent, 2023).

It appears that targeted advertising can be a powerful tool for encouraging female students to pursue careers in IT. Ultimately, it is hoped that these advertisements can help break down gender stereotypes and create a more inclusive environment within the industry. Table 9 represents the answers to Question 9 of the survey.

Responses	№ of responses
Respondents who did not receive targeted advertisements aimed at attracting women to IT	46
Respondents who received targeted advertisements aimed at attracting women to IT	11
Respondents who received targeted advertisements, but only from "ITGIRLS"	26

Table 9. Responses to Q9

4.1.3 Research sub-question №3

How to mitigate gender stereotypes around women in tech with gender-specific marketing?

Q7. Pros and cons of female-oriented courses in IT.

The survey results were overwhelmingly in favour of a female-oriented coding course. Over 95% of respondents agreed that such a course would be a great way to help women break into the coding world and develop the skills they need to thrive in tech. Gender biases have held back women in the past, and those who are new to coding may need an extra boost of confidence. This could be especially important for them. The course could also provide a safe, supportive environment where women can ask questions, collaborate, and build their skills without fear of judgment. Ultimately, this could be an invaluable tool for helping more women enter the tech industry and make their mark. Table 10 represents the answers to Question 7 of the survey.

Statement	№ of responses
Respondents who think that a female-oriented course in coding is beneficial for women	76
Respondents who do not think that a female-	5

oriented course in coding is beneficial for women	
Respondents who found it difficult to answer	2

Table 10. Responses to Q7

Respondents of the survey (2023) believe that the societal stereotype that IT is a field for men can be challenged by spaces like "ITGIRLS", which shows women that are succeeding in the field. Some respondents believe that women can attend mixed schools/courses if they have the self-esteem and life experience to defend themselves among male teams, while others prefer a friendly and supportive environment like "ITGIRLS." The survey respondents also believe that programming is accessible to anyone at any age, and the more girls involved in IT, the more confident they are that they will succeed.

In the interview, Alice Kurtz, the founder of the school, explained the concept behind "ITGIRLS". She shared that throughout her journey, she experienced discrimination in the professional world. In her own words, she commented, "You come and feel like a minority. In my group at university, there were only 5 females out of 20 men" (Kurtz, 2023). Companies' job openings often highlighted qualities only a man with a higher education and three years of work experience would possess, making it difficult for Alice to pursue her goals. Thus, she decided to create a supportive space where women would be able to freely pursue their dreams and combine work with motherhood, travel, and other aspirations. This concept served as the basis for the female school she created, which soon became a safe place for girls to unleash their potential without fear of discrimination. Realizing that most of her students were girls who felt more comfortable and safer with a female teacher, Alice knew she had made the right decision.

While most respondents agreed that a female-oriented course in coding is beneficial for women entering the IT field, five respondents had a different opinion. One of them shared that such an approach could be detrimental, as it emphasizes the importance of "special" education once more. Another respondent pointed out that gender should not be a factor in determining whether a course works or not. Regardless of their opinions on the matter, all survey respondents agreed that more should be done to help women break into the IT field.

They believe that better access to resources, mentorships, and support networks, as well as more inclusive hiring practices, are essential steps in achieving gender equality in the industry. Ultimately, these initiatives could help create an environment where everyone can thrive, regardless of gender.

Q3. The prior reason students chose the female school "ITGIRLS", and not the traditional coding school.

The students explained that, by attending a female-only school, they were able to create an environment of trust and support. Not only did they feel safe and comfortable, but they also felt empowered to openly express themselves and their ideas. They noted that the atmosphere of empathy and understanding within the school helped them thrive. Furthermore, the students were able to collaborate freely without fear of judgment or criticism. The supportive culture at "ITGIRLS" created an ideal learning environment for these young women, enabling them to make the most of their educational opportunities. Table 11 represents the answers to Question 3 of the survey.

Reason	№ of responses
Supportive environment, females only	41
Alice as a role model	19
First open webinar	12
Affordable price for courses	10
Small groups, individual approach, and quality	6

Table 11. Responses to Q3

Alice Kurtz, the founder of "ITGIRLS", inspired some of her students with her success in the tech industry. The students were particularly inspired by Alice's webinar, where she demonstrated the process of coding. It was a momentous occasion for many of the students and an inspiring example of what can be achieved with hard work and dedication. Alice Kurtz's success serves as an inspiring example for all her students, showing them what is possible when you put your mind to it.

Furthermore, students cited various reasons for their preference, such as assistance with employment and internships, complimentary English group classes and seminars,

experienced tutors, hands-on activities, and positive feedback from their peers. Moreover, the flexibility of the education was highlighted, which included the ability to resume the course after a hiatus, a refund if the school is not satisfactory after one month, the option of making monthly payments, tuition waivers for those in difficult life circumstances, and online instructions.

In the interview, Alice talked about the competitive advantages of the school. One of them is that the school offers an individual approach, giving special consideration to students' motivation, energy level, health, teamwork, workshops, self-development, and the community itself. The school also provides regular assistance to students facing difficulties with tasks, motivation, or other related issues and offers access to a professional coach on the platform, where girls can book an appointment and discuss the issue. Moreover, the community is expanding daily; students from different cities are now organizing social media chats for girls to network, get to know one another, share their experiences, and have fun (Kurtz, 2023).

"ITGIRLS" pushes students to complete courses, prioritizing student retention by helping them with programming, job search, internships, soft skills, interview preparation, communication skills, and more. This all-encompassing approach has resulted in an 88% rate of employability, with girls being hired in Russia, Israel, the United States, and beyond. 85% of ITGIRLS students have become employed in the field (Kurtz, 2023).

Q10. Recommendations to companies looking to attract more women to IT.

Students shared a lot of great ideas and thoughts about this question, and the following is a summary of them.

To promote the diversity of personnel and offer women a respectable wage on par with males, it is important to set up lectures in schools to demonstrate that women may work in this field, share more about successful women in tech, and set up women ambassadors that can promote it. It is also important to note that not everyone can be in this field, but only those who are extremely ambitious and interested. Providing more accurate information regarding employment is key as well. To ensure gender equality, it is important to conduct a policy of gender equality to ensure that there is no discrimination based on gender among

employees. Professionalism does not depend on gender; if a female team is required for some reason, provide the opportunity for women to take several paid days per month without opening a sick leave and a flexible schedule for mothers of young children.

"It seems to me today that there aren't any prejudices against girls right now because everyone gets chosen in the same manner; the only difference is that there are typically more men than women among candidates. When inviting candidates for interviews, the management should mandate a specific quota for female applicants." (Survey respondent, 2023) Regardless of gender, it is essential to avoid stereotyping and concentrate entirely on a candidate's talents and sense of how well they would fit into a team during interviews. Companies should consider the heavy workload that some women face due to their responsibilities to family, children, and the home, and adopt a softer approach. To further advocate feminist ideas and support women in IT, providing a good life-work balance and the "only girls" concept with the community could be a key step forward. (Survey respondent, 2023)

Q12. Additional comments shared by the respondents.

One of the respondents suggested that schools should implement counselling programs that focus on modern professions and demanding skills. Another respondent believes that all opportunities should be equal in the IT sector, regardless of gender. Some admitted that all-female schools and communities can encourage more girls to pursue IT careers, but ultimately, they hope for mixed teams where everyone feels at ease. Many of the respondents shared that they hope to see more girls sharing their experiences to inspire others and show that anything is possible regardless of gender or age. (Survey, 2023)

5. Discussions and Conclusions

This research project has been concluded with a discussion that summarizes the academic contributions and managerial implications, critically evaluates the limitations of this study, and provides recommendations for future research on the topic.

5.1 Summary of the Empirical Findings

The objective of this study was to research challenges that women face in IT and find out what marketing techniques can be used to increase female representation in the field. The answers to the research question and the sub-questions of the study are addressed in this chapter to provide a comprehensive understanding of the topic being investigated. The results of the qualitative data that was gathered in this research are presented below.

The low representation of women in the STEM field, particularly in the IT sector, is a persistent challenge that limits expertise and innovation. To support more women in the field, this study proposes a gender-specific marketing approach that includes targeted marketing campaigns, mentoring programs, and coaching structures. These initiatives can benefit not only the women who join the STEM field but also the organizations that are taking the initiative to promote them. The research highlights the need for more targeted initiatives in the IT sector to close the gender gap and create a more supportive and collaborative environment for women to succeed.

The author concludes that targeted social media ads featuring female STEM role models are more effective than traditional recruitment methods. A survey conducted among female students interested in IT found that targeted advertising aimed at attracting women to the industry can be effective. The surveyed students also feel that female-oriented coding courses create a safe and supportive environment where women can learn and thrive. Most respondents supported the idea of such courses being offered to women, while a minority raised concerns that it could further emphasize the need for "special" education and marginalize women. The study also revealed that students prefer female-only schools because they create an atmosphere of empathy and understanding that helped to build their confidence.

5.2 Theoretical Contributions

This study is particularly significant because online female coding schools are a relatively new phenomenon and represent a niche market in the online education field. Moreover,

there are no prior studies related to this market, making this study one of the first to explore this area.

Upon comparison of the findings of this research to the existing literature and theory concerning gendered marketing and the state of women in the tech industry, it can be concluded that this research supports the theory of creating a more inclusive culture for women in the IT sector, more female role models, and effective target marketing decisions to create a positive effect on the representation of females in the IT sector. Both the insights from the interview, survey, and previous research emphasize how more collaboration, various marketing initiatives, and practical solutions can have a positive impact on the perception of females in IT.

One of the crucial findings that is in line with the theory (Vitores and Gil-Juárez, 2015) is the significance of analyzing inclusion processes in computing and IT for women rather than merely examining exclusion factors. The following research emphasizes inclusion factors, exploring the reasons why women entered the field in the first place (See Appendix 2, Q1). The results indicate that there is still work to be done to create an inclusive and welcoming culture for female students and professionals in computing and IT. However, the findings are also encouraging, as they show that there are numerous factors that can be leveraged to attract more women into this field. Their research sheds light on the need for an increased focus on inclusion processes in computing and IT, which will ultimately lead to a better representation of women in this area. In addition, the previous findings of Vitores and Gil-Juárez (2015) indicate that "computing itself" is not being an issue, but rather the "masculine culture" that surrounds computing education and work. The survey (2023) of this research indicated similarities with the abovementioned findings, as a big number of participants agreed that they do not enter the field due to social pressure and a "masculine" stereotype surrounding IT.

As Gomez Soler, Abadía Alvarado, and Bernal Nisperuza (2019) highlighted in their previous research, the lack of female role models and the lack of self-confidence related to STEM careers contribute to the low female representation in these fields. The survey from this research is on the same page as the previous findings, that when there is a lack of female representation in male-dominated fields, women often experience a lack of confidence and support to pursue such fields.

Wang and Degol (2016) expressed in their study that although there is a research-backed understanding of how to effectively adjust females' perceptions of STEM, it is still challenging to translate that understanding into actual practices that are efficient and effective. In other words, it's not enough to simply have knowledge or insights from research - it's also important to apply those insights in a practical and useful way. The results of the interview and survey conducted in this study provide evidence that organizations should be more proactive in taking measures to create more equitable environments that can facilitate the academic aspirations of people of all genders.

G. Sanfelice (2014) highlighted the importance of effective target marketing decisions in his article. He noted that committing resources and understanding industry dynamics can help businesses make informed decisions and accurately target the right audiences. This, in turn, can result in considerable growth and increased profitability for businesses. The findings of this study gave insights on how having the right marketing capabilities is integral for businesses to be successful, as it allows them to assess the market and identify their customer base more effectively. Additionally, it is important for businesses to stay up to date with trends within their industry to remain competitive and ensure they are targeting the right audiences. All in all, by making effective target marketing decisions and having the right marketing capabilities, businesses can greatly benefit from increased success.

Kotler (2017) placed a great value on the importance of understanding and anticipating customer needs to create long-term relationships and increase customer loyalty. This is a practice that the case company in this study has been successfully implementing, as they are always striving to learn more about their customers and their needs. Their commitment to providing the best service possible has been reflected in their customer satisfaction ratings and has helped them build a solid reputation in the industry. The case company goes the extra mile to ensure that their customers have an enjoyable experience each time they interact with them. They employ customer-centric strategies, such as gathering feedback from customers, responding quickly to inquiries, offering personalized services, and more. These tactics have enabled them to gain a deeper understanding of their customers' needs and wants, allowing them to provide more targeted solutions that meet their clients' expectations. The case company's approach is a testament to how companies

can leverage customer insights and feedback to create lasting relationships and gain customer loyalty. It serves as an example for other businesses on how they can prioritize understanding customer needs, which is essential for providing great service.

Earlier research (Maron, n.d.) also suggested that gendered marketing can be an effective means of counteracting gender stereotypes and encouraging women to consider IT careers. It was found that gender-targeted advertising was more effective in this regard than gender-neutral advertising. However, even though some of the respondents from the survey (2023) confirmed this statement, many also said that despite the many potential benefits of gendered marketing, it can also perpetuate gender stereotypes and reinforce gender norms (Survey, 2023).

5.3 Practical Implications

Regarding the managerial implications, the research conducted can have far-reaching implications for the IT industry by providing valuable insight into the ways in which digital marketing and customer relationship-building processes can be improved. With the results of the study, companies are better equipped to develop new gender-based marketing initiatives to attract more female talent into their workforce. This is especially true in the IT market, where more females are needed to increase diversity and provide a balance. However, this strategy could also be applied to any organization aiming to diversify its workforce with female employees. By understanding how women interact with digital marketing, organizations can better tailor their campaigns to target this demographic and create a more inclusive environment.

Online IT schools and organizations can employ the proposed research method and design, specifically the questionnaire, to gain valuable insights into customer preferences and expectations. By understanding what their customers want and need, online IT schools can craft marketing strategies that better meet the needs of their target audience. Moreover, the questionnaire can be used to evaluate customer feedback and gain a better understanding of online customer behaviour and the process of relationship building. This data can then be used to further refine their marketing strategies and make them more effective. By leveraging the power of customer feedback, online IT schools can make sure that their services are tailored to the needs of their customers, helping them to build strong

relationships with them. Organizations can use these findings to develop and implement policies, strategies, and initiatives that attract, integrate, retain, support, and motivate women in historically male-dominated occupations.

www.edugo.ai (n.d.) suggests that it is essential to engage existing students and turn them into brand ambassadors who will further promote the school. This way, online schools will experience higher student satisfaction, better results in class, retention, referrals, and a steady income as a result of this. An excellent example of this is the case company of this study, which keeps both former and current students connected through a single platform, "Slack". This platform has grown to include a community of over 1500 students, where new students can ask for help from those who have already graduated and found employment. Besides, former students become brand ambassadors and continue to promote the school even after they have graduated (Kurtz, 2023). This practical example shows one of the countless benefits that online schools and other educational platforms can reap from keeping their existing and former students engaged. Moreover, the case company of this study supports the learning process and empowers its students to become confident coders through interactive exercises and hands-on learning opportunities that help reinforce coding skills and concepts. They recognize that every student's learning journey is different, which is why they provide personalized support and mentorship to ensure their students have the necessary tools to succeed. The idea is to create quality and engaging content that will make a company unique.

Additionally, this study found that female-targeted marketing could effectively encourage more women to pursue careers in the IT industry, with 95% of survey respondents agreeing that it could help draw more women into the field. Companies should therefore employ this type of marketing strategy, as it has the potential to make a real difference in inspiring more women to pursue a career in IT. Using gendered marketing techniques, the study has the potential to uncover invaluable information about how to successfully reach and engage potential female students. By understanding how best to market online female coding schools, companies can use this knowledge to create targeted campaigns that appeal specifically to female coders. Ultimately, this study could pave the way for more effective marketing strategies for online female coding schools and help ensure that they reach their desired audience.

In conclusion, this thesis provides a contribution to the specialized market of online female coding schools and their digital marketing strategies, as well as to the academic discourse surrounding the application of the AIDA model and the process of constructing customer relationships.

5.4 Limitations and Future Research

This research has several limitations that should be considered. Firstly, it only focuses on the markets of CIS countries and does not provide an analysis of other regions. This means that additional research should be conducted to expand the scope of the findings. Secondly, there is a lack of previous research on online female coding schools and their marketing, which may be attributed to the novelty of this business model. Thus, these limitations should be kept in mind when interpreting the results of this study.

Based on the author's empirical observations and literature review, future research should focus on the inclusion process of women in IT rather than exclusion factors. The researchers should focus on understanding why women enter the IT field, as it will bring the topic more attention and thus raise awareness around women in tech.

Moreover, it was also previously mentioned that the researchers mainly focus on Western countries, where, compared to other countries, the IT gap prevails. For instance, India and Malaysia are examples of countries where a large percentage of women enter the field; thus, future studies should focus on the countries with a high percentage of women in tech. The outcomes of these studies can give practical advice that can be applied to countries with a low percentage of women in tech.

Gendered marketing can be an effective tool for encouraging more women to pursue IT careers, but it needs to be done carefully and in conjunction with other strategies to ensure that women are able to succeed in the long term. Further research is needed to understand what types of gendered marketing strategies work best and in what contexts.

Additionally, future research could focus on diversity and inclusion in business and suggest ways in which marketing can be integrated with broader diversity initiatives within tech companies. This might involve developing frameworks or models that illustrate how

marketing strategies can be used in conjunction with other initiatives to promote diversity and inclusion.

To conclude, there is a need to study the existing experiences of women in the IT field, such as their career paths and the challenges they faced while entering the industry and developing their expertise. This will help to further understand the particularities of how women enter the IT industry and how they manage to stay in it despite all the obstacles they might face during their career path. Furthermore, it is important to analyze successful case examples to understand what strategies could be applied to increase female presence in the IT sector. Finally, it is essential to conduct studies that compare various countries, as different cultural backgrounds can have an impact on female inclusion in the IT field. This comparison will also help to identify common patterns across different nations and suggest more effective ways for women to enter the tech industry globally.

References

1&1 IONOS Inc (2017). *Gender marketing: definition and implementation*. [online] 1&1 Digitalguide. Available at: https://www.ionos.com/digitalguide/online-marketing/online-sales/gender-marketing-definition-and-implementation/.

Alexander, L. (2022). What Is Digital Marketing? [online] Hubspot. Available at: https://blog.hubspot.com/marketing/what-is-digital-marketing.

Al Tamime, R. and Weber, I. (2022). Using social media advertisement data to monitor the gender gap in STEM: opportunities and challenges. *PeerJ Computer Science*, 8, p.e994. doi:https://doi.org/10.7717/peerj-cs.994.

Bhandari, P. (2020). *Data Collection | A Step-by-Step Guide with Methods and Examples*. [online] Scribbr. Available at: https://www.scribbr.com/methodology/data-collection/.

Bhandari, P. (2022). *Inductive Reasoning | Types, Examples, Explanation*. [online] Scribbr. Available at: https://www.scribbr.com/methodology/inductive-reasoning/.

Bhandari, P. (2020). *What is qualitative research? Methods & Examples*. [online] Scribbr. Available at: https://www.scribbr.com/methodology/qualitative-research/.

blogs.worldbank.org. (2019). There are fewer female than male STEM graduates in 107 of 114 economies. [online] Available at: https://blogs.worldbank.org/opendata/there-are-fewer-female-male-stem-graduates-107-114-economies.

Brodzik, C., Cuthill, S., Young, N. and Drake, N. (2021). *Authentically inclusive marketing*. [online] Deloitte Insights. Available at:

https://www2.deloitte.com/uk/en/insights/topics/marketing-and-sales-operations/global-marketing-trends/2022/diversity-and-inclusion-in-marketing.html.

Carrell, S.E., Page, M.E. and West, J.E. (2010). Sex and Science: How Professor Gender Perpetuates the Gender Gap*. *Quarterly Journal of Economics*, 125(3), pp.1101–1144.

Chaffey, D. (2020). *Dr Dave Chaffey*. [online] Dr Dave Chaffey: Digital Insights. Available at: https://www.davechaffey.com/digital-marketing-glossary/online-value-proposition-ovp/.

cis-legislation.com. (n.d.). CIS Legislation - Homepage. [online] Available at: https://cislegislation.com/ [Accessed 17 Mar. 2023].

Clive Thompson (2019). Coders: the making of a new tribe and the remaking of the world. New York: Penguin Press, An Imprint Of Penguin Random House.

Code First Girls. (n.d.). *Code First Girls - Learn to code for FREE*. [online] Available at: https://codefirstgirls.com/.

Code Like a Girl (2019). *Code Like a Girl*. [online] Code Like a Girl. Available at: https://www.codelikeagirl.com/.

Cole, B.M. (2019). *10 Reasons Why Networking Is Essential For Your Career*. [online] Forbes. Available at: https://www.forbes.com/sites/biancamillercole/2019/03/20/whynetworking-should-be-at-the-core-of-your-career/.

Dee, H. (2011). Heroines of Technology. *ITNOW*, 53(6), pp.56–57. doi:https://doi.org/10.1093/itnow/bwr074.

Deloitte United States. (n.d.). *Women In Tech Program*. [online] Available at: https://www2.deloitte.com/us/en/pages/chief-information-officer/articles/women-intechnology.html.

Doyle, C. (2011). A dictionary of marketing. Oxford: Oxford University Press.

Dunphy, S. (2018). Women are seeing fewer STEM job ads than men: are marketing algorithms promoting gender bias? [online] European Scientist. Available at: https://www.europeanscientist.com/en/public/women-are-seeing-less-stem-job-ads-than-men-are-marketing-algorithms-promoting-gender-bias/ [Accessed 26 Apr. 2023].

Fischer, A.H., Kret, M.E. and Broekens, J. (2018). Gender differences in emotion perception and self-reported emotional intelligence: A test of the emotion sensitivity hypothesis. *PLOS ONE*, 13(1), p.e0190712. doi:https://doi.org/10.1371/journal.pone.0190712.

Frankenfield, J. (2022). *Technology Sector: Definition, 4 Major Sectors, Investing in Tech.* [online] Investopedia. Available at:

https://www.investopedia.com/terms/t/technology_sector.asp.

George, T. and Merkus, J. (2021). *A guide to explanatory research*. [online] Scribbr. Available at: https://www.scribbr.com/methodology/explanatory-research/.

George, T. (2022). *Semi-Structured Interview | Definition, Guide & Examples*. [online] Scribbr. Available at: https://www.scribbr.com/methodology/semi-structured-interview/.

Geyser, W. (2022). *The Ultimate Influencer Marketing Blueprint for 2022*. [online] Influencer Marketing Hub. Available at: <a href="https://influencermarketinghub.com/influencermarke

Girls Who Code (n.d.). *Home*. [online] Girls Who Code. Available at: https://girlswhocode.com/.

Gomez Soler, S.C., Abadía Alvarado, L.K. and Bernal Nisperuza, G.L. (2019). Women in STEM: does college boost their performance? *Higher Education*, 79(5), pp.849–866. doi:https://doi.org/10.1007/s10734-019-00441-0.

Hassan, S., Nadzim, S.Z.A. and Shiratuddin, N. (2015). Strategic Use of Social Media for Small Business Based on the AIDA Model. *Procedia - Social and Behavioral Sciences*, [online] 172(172), pp.262–269. doi:https://doi.org/10.1016/j.sbspro.2015.01.363.

Henwood, f. (2000). from the woman question in technology to the technology question in feminism: Rethinking gender equality in IT education. *European Journal of Women's Studies*, 7, 209–227. doi:10.1177/135050680000700209

itgirlschool.com. (n.d.). Школа IT-профессий для девушек #ITGIRLS. [online] Available at: https://itgirlschool.com/en [Accessed 14 Mar. 2023].

Jason, L. and Glenwick, D. (2016). *Handbook of methodological approaches to community-based research: qualitative, quantitative, and mixed methods*. New York: Oxford University Press.

Kotler P, Keller KL, Brady M, Goodman M, Hansen T. 2012. Marketing Management (2nd European edn). Pearson Education Limited: Harlow, England.

Kotler, P. and Armstrong, G. (2017). *Principles of Marketing*. 18th ed. Harlow: Pearson Education Limited.

Kurtz, A. (2023). Interview with the founder of 'ITGIRLS' school. 18 Mar.

Lambrecht, A. and Tucker, C.E. (2016). Algorithmic Bias? An Empirical Study into Apparent Gender-Based Discrimination in the Display of STEM Career Ads. *SSRN Electronic Journal*. doi:https://doi.org/10.2139/ssrn.2852260.

Luo, A. (2019). What is content analysis and how can you use it in your research? [online] Scribbr. Available at: https://www.scribbr.com/methodology/content-analysis/.

Lutkevich, B. (2021). *What Is Social Media?* [online] Techtarget. Available at: https://www.techtarget.com/whatis/definition/social-media.

Maclaran, P. and Chatzidakis, A. (2022). *Gendered Marketing*. Edward Elgar Publishing. Maddison, T., Doi, C., Lucky, S., & Kumaran, M. (2017). Literature Review of Online Learning in Academic Libraries. *Distributed Learning*, 13-46. https://doi.org/10.1016/B978-0-08-100598-9.00002-7

Maron, D.F. (n.d.). *Science Career Ads Are Disproportionately Seen by Men*. [online] Scientific American. Available at: https://www.scientificamerican.com/article/science-career-ads-are-disproportionately-seen-by-men/.

McCombes, S. (2019). *Doing Survey Research | A Step-by-Step Guide*. [online] Scribbr. Available at: https://www.scribbr.com/methodology/survey-research/.

Middleton, F. (2019). *Reliability vs validity in research*. [online] Scribbr. Available at: https://www.scribbr.com/methodology/reliability-vs-validity/.

Oecd.org. (2023). Available at: https://www.oecd.org/digital/bridging-the-digital-gender-divide.pdf.

Prabhakar, K. (n.d.). *Deloitte BrandVoice: The Art Of Allyship—6 Ways To Be An Ally For Women In Tech*. [online] Forbes. Available at:

https://www.forbes.com/sites/deloitte/2023/03/08/the-art-of-allyship-6-ways-to-be-an-ally-for-women-in-tech/?sh=353dd34034f6 [Accessed 8 May 2023].

Radulovski, A. (n.d.). What are the Benefits of Sponsoring a Women in Tech Conference? [online] Women in Tech Network. Available at: https://www.womentech.net/en-us/blog/what-are-benefits-sponsoring-women-in-tech-conference [Accessed 5 May 2023].

Sanfelice, G. (2014). Hit with One Shot: Assessing the Drivers of Target Marketing Effectiveness. *Knowledge and Process Management*, 21(2), pp.143–148. doi:https://doi.org/10.1002/kpm.1441.

Stewart, R., Wright, B., Smith, L., Roberts, S. and Russell, N. (2021). Gendered stereotypes and norms: A systematic review of interventions designed to shift attitudes and behaviour. *Heliyon*, 7(4), p.e06660. doi:https://doi.org/10.1016/j.heliyon.2021.e06660.

Stoet, G. and Geary, D.C. (2018). The Gender-Equality Paradox in Science, Technology, Engineering, and Mathematics Education. *Psychological Science*, 29(4), pp.581–593. doi:https://doi.org/10.1177/0956797617741719.

Sellers, A. (2021). *The AIDA Model: A Proven Framework for Converting Strangers Into Customers*. [online] Hubspot.com. Available at: https://blog.hubspot.com/marketing/aida-model.

Semrush Blog. (n.d.). *The Marketing Funnel: What It Is & How It Works*. [online] Available at: https://www.semrush.com/blog/marketing-funnel/#what-is-a-marketing-funnel [Accessed 10 Apr. 2023].

Vitores, A. and Gil-Juárez, A. (2015). The trouble with 'women in computing': a critical examination of the deployment of research on the gender gap in computer science. *Journal of Gender Studies*, 25(6), pp.666–680.

doi:https://doi.org/10.1080/09589236.2015.1087309.

Wang, M.-T. and Degol, J.L. (2016). Gender Gap in Science, Technology, Engineering, and Mathematics (STEM): Current Knowledge, Implications for Practice, Policy, and Future Directions. *Educational Psychology Review*, [online] 29(1), pp.119–140. doi:https://doi.org/10.1007/s10648-015-9355-x.

www.edugo.ai. (n.d.). *Sales Funnel for your Online Language School. - Edugo.AI*. [online] Available at: https://www.edugo.ai/blog/sales-funnel-for-your-online-language-school [Accessed 8 May 2023].

APPENDICES

Appendix 1. Interview questions

Basic Information:

- Company: ITGIRLS

- Founder: Alice Kurtz

- Year of foundation: 2020

- Number of female students in the school: 580

- Q1. What motivated you to establish a coding school exclusively for women?
- Q2. How does your coding school differ from other coding schools?
- Q3. What are the challenges facing women in the technology industry today?
- Q4. How do you encourage and support female students to pursue careers in tech?
- Q5. Why is it important to create a female-oriented coding space?
- Q6. Do you think traditional coding schools don't work for girls?
- Q7. Do you think gender stereotypes in the IT industry are the primary reason that prevents females from entering the field? Are there other possible reasons?
- Q8. What was the marketing strategy to attract female students to the school when it just started to operate?
- Q9. What is the marketing strategy now? Did it change or improve over time?
- Q10. Do you believe that gendered marketing can attract more females into the coding field? If so, do you implement it?
- Q11. Does the gender stereotype in the industry vary depending on the geographical/cultural factors of the students, or is it more or less even everywhere?
- Q12. Do you think gendered marketing can help decrease the gender gap in the IT field?

Appendix 2. Student Survey Questions for Student Feedback

- Q1. What motivated you to pursue a career in IT?
- Q2. How did you find "ITGIRLS"?
- Q3. Why did you choose "ITGIRLS" and not another coding school?
- Q4. Do you agree that there are enough opportunities for women in IT?
- Q5. Before starting to study IT, did you think that this profession is mostly for males?
- Q6. Have you ever felt discouraged or excluded because of your gender while pursuing your studies or working in the IT industry?
- Q7. Do you feel that a female-oriented course in coding is more beneficial for women entering the IT field? If so, why?
- Q8. Do you think that targeted marketing to women can help attract more women to the IT industry?
- Q9. Have you ever received targeted advertisements or outreach aimed at attracting women to IT? If so, how effective did you find it?
- Q10. What would you suggest to companies or organizations looking to attract more women to IT?
- Q11. Do you believe that there are any stereotypes or misconceptions associated with women in IT? If so, what are they?
- Q12. If you have any other comments, you can leave them here.