

**"D. A. TSENOV" ACADEMY OF ECONOMICS - SVISHTOV
DEPARTMENT OF COMMERCE**

Nikola Ilichov Ilchev

**BUSINESS MODEL ADAPTATION
FOR TRADE OF FOOD AND BEVERAGES
IN A DIGITAL ENVIRONMENT**

ABSTRACT

*of a dissertation for awarding the PhD degree
in Doctoral Programme "Economics and Management (Commerce)"*

**Scientific advisor:
Assoc. Prof. Svetoslav Iliychevski, PhD**

**Svishtov
2024**

The dissertation consists of 170 pages, of which: title page - 1 page; table of contents - 1 page; introduction - 7 pages; main text (three chapters) - 147 pages; conclusion - 4 pages; declaration of originality and authenticity - 1 page; cited and literary sources - 7 pages (91 sources); list of figures - 1 page; list of tables - 1 page. Three appendices are developed to support the statement.

The dissertation work was discussed and proposed for defense under the Academic Staff Development Act in the Republic of Bulgaria by the Department of Commerce at the Faculty of Industry and Commerce of the D. A. Tsenov Academy of Economics – Svishtov.

The defense will be held on March 21, 2025 at 13:30 in the Rector's Meeting Room of the D. A. Tsenov Academy of Economics – Svishtov.

The defense materials are available at the Department of Doctoral Studies and Academic Development at the D. A. Tsenov Academy of Economics - Svishtov.

I. GENERAL CHARACTERISTICS OF THE DISSERTATION

1. Relevance of the topic

Digital technologies are the significant vector of transformation of our time. Today, platforms play an important role in the digital business world and can be basically distinguished into transaction-based platforms and data-driven platforms. The former are the so-called digital marketplaces that mediate trade in goods and services. In contrast, data-driven platforms are used to connect production processes, machines and systems or products in the Internet of Things (IoT platforms), as well as to analyse the collected data and develop new business models based on it. They are used to exchange and analyse company-related data (e.g. product characteristics) to improve products and services. Companies have the possibility to develop their own digital platforms or to build on existing platform structures.

Digitalisation today is fundamentally changing the economy and society. It drives entrepreneurial innovation, productivity and regional economic growth. It is also having an impact on the labour market and placing new demands on education and training - not just in ICT. In everyday business, digitisation can mean scanning a document and inputting records, as well as the possibilities to process, store or share the same. This is the first part of how businesses can digitise by converting analogue documents and content into digital form.

Businesses are quickly adapting to the new online world. Currently, consumers are witnessing personalised service and tailored offers, social media advertising, diverse payment methods, and sophisticated and efficient supply chains. Thus, companies achieve greater customer satisfaction and improved market positions they occupy in their respective sector by applying a suitable online model to sell their products.

2. Object and subject of the study

The object of the study are companies that offer food and beverages, respectively in offline and digital environments, with a view to comparing their activities, deriving generalizations and recommendations necessary to adapt a hybrid business model.

The subject of the study is the business models for trading food and beverages in a digital environment and the possibility of their implementation in an enterprise developing traditional trade.

3. Research thesis

The research thesis is that the transformation of a particular offline grocery and beverage business model requires a restructuring of core processes to move in parallel to a digital environment, which can improve customer interaction and lead to an increase in customer satisfaction.

4. Aim and tasks of the study

The aim of the dissertation is to adapt a hybrid business model of offline activity, alongside functioning in a digital environment, based on theoretical and empirical interpretation of the characteristics, factors, practices and processes of online food and beverage commerce.

In order to achieve the objective, the following **research tasks** were defined:

First. Outline the theoretical foundations of the online market and food and beverage.

Second. Presenting the methodological basis of existing business models for food and beverage marketing.

Third. Comparative analysis of the features of online and offline trading activities and adaptation of a hybrid business model for food and beverage trading.

Fourth. Empirical testing of the food and beverage trading business model and highlighting recommendations for improving key processes.

5. Research methodology

In order to realize the set goal and to fulfill the tasks of the study, the following **methods** were applied: *logical and retrospective analysis* of the literature sources for the theoretical characterization of the issues; *synthesis of* primary and secondary data on the selected object of study in order to learn about the trading models; *comparative analysis of* existing business models for food and beverage trading; *survey research*, through which actual quantitative knowledge about attitudes, preferences and satisfaction was accumulated. *Historical approach, induction and deduction* to assist the author.

6. Scope of the study

The research integrates a study of a company with online sales and another company with offline outlets in order to adapt a hybrid business model for food and beverage trading. A survey of consumer satisfaction and attitudes was conducted, as well as an analysis of a business entity's operations, resulting in an algorithm for adapting operations in a digital environment.

7. Approval of the dissertation work

The dissertation was discussed and directed for defense at a meeting of the Department of Commerce at the Academy of Economics D. A. Tsenov – Svishtov. Parts of the research have been presented at scientific forums and published in specialized scientific publications.

II. STRUCTURE AND CONTENT OF THE DISSERTATION

The dissertation consists of an introduction, an outline in three chapters and

a conclusion. The total length of the introduction, the three chapters and the conclusion is 158 pages. The content is illustrated with 29 figures and 12 tables. The thesis also includes: a declaration of originality and authenticity, literature and appendices.

The dissertation is structured as follows:

INTRODUCTION

CHAPTER ONE. THEORETICAL FOUNDATIONS OF THE ONLINE FOOD AND BEVERAGE MARKET

1. Main characteristics of the market and of food and beverage

1.1. A substantive interpretation of the food and beverage market

1.2. Main characteristics of food and beverages

2. Specifics of buyer behaviour in online shopping

3. Customer groups in food and beverage trade - consumer preferences

4. Commercial practices and processes in food and beverage trade in a digital environment

CHAPTER TWO. METHODOLOGICAL BASIS OF FOOD AND BEVERAGE BUSINESS MODELS

1. Relevant factors of food and beverage trade in a digital environment

2. Global experience in online food and beverage trade

3. Key features of a business model for food and beverage trade in a digital environment

3.1. Business model of the online grocery store of Canvinians JSC

3.2. Business model adaptation for trade of food and beverages in a digital environment

CHAPTER THREE. PRACTICAL AND APPLIED ASPECTS OF ADAPTING A BUSINESS MODEL FOR OFFLINE FOOD AND BEVERAGE TRADE IN A DIGITAL ENVIRONMENT

1. Presentation of a business model for offline trading of food and beverages

2. Analysis of consumer attitudes and satisfaction in online food and beverage trade

2.1. Research methodology

2.2. *Analysing the survey results*

3. Guidelines for adapting the food and beverage business model in a digital environment

CONCLUSION

LITERARY SOURCES

LIST OF FIGURES

LIST OF TABLES

DECLARATION OF ORIGINALITY AND AUTHENTICITY

APPLICATIONS

III. BRIEF SUMMARY OF THE CONTENTS AND RESULTS OF THE STUDY

INTRODUCTION

The introductory part of the dissertation is developed in a volume of seven pages and contains a justification of the relevance and importance of the topic. It defines the subject and object of the study, formulates the research thesis, outlines the aim and determines the research tasks. The scientific methods are summarized and limitations due to the scope of the problem are presented.

Chapter One. Theoretical Foundations of the Online Food and Beverage Market comprises four paragraphs devoted respectively to:

Paragraph 1. Main characteristics of the market and of food and beverage

The theoretical study starts by identifying the main key concepts related to the food and beverage sector as well as online trade: "e-commerce", "online food trade", "food market". The concept of 'commerce' in the context of a digital environment has a broad scope of content. It includes not only the commercial legal relationships that are manifested through the use of information and communication technologies, but also all civil legal relationships of exchange of goods between persons who are not traders, and transactions are not commercial within the meaning of the Commerce Act.

On the basis of leading research papers, generalizations are drawn, such as: *e-commerce is the sale or purchase of goods or services by companies, households, individuals or private organizations through computer-based networks (online communication networks)*. Online activity can be reduced to "*business transactions carried out in real time over telecommunications networks*".

It should be highlighted that e-stores are not a substitute for traditional physical outlets, but a complement to them. The history of e-commerce began in the early 1990s, when the Internet gradually and smoothly became established in the lives and behaviour of end users. Today, almost all types of products can be offered in a digital environment. Each sub-niche has its own peculiarities, and the sale of food and beverages is a specific sector.

Market awareness on social media is becoming a powerful tool for commercial businesses, offering unparalleled reach and influence. Key strategies include using various platforms to promote products or services, engage target audiences and drive traffic to the website. The aforementioned can be implemented through: *search engines marketing (SEM)*; *search engine optimization (SEO)*; *search engine advertising (SEA)*.

The study moves smoothly through a substantive analysis of food and beverage products, such as characteristics, properties, composition and the importance of their proper storage, transportation and delivery to the consumer. It highlights the need to comply with environmental practices and healthy product requirements as enablers for modern digital commerce.

Paragraph 2. Specifics of buyer behaviour in online shopping

Numerous scientific studies prove that the development of the digital economy directly influences consumer behaviour. The connectivity of customers with each other and with businesses, their participation in different online communities are changing the patterns of seller-buyer interaction and purchase decision making. Modern technological changes are characterised by a significantly higher speed, which shortens the life cycle of goods and services. "The 'Internet of Things', cloud technologies, big data and analytics

tools, mobile communications, social networks and artificial intelligence are driving the need for strategic solutions to digitally transform all aspects of modern companies.

Consumers, according to their personal profile, have different online shopping behaviour. Socio-demographic characteristics influence commerce in a digital environment. Researchers identify different purchase orientations including utilitarian, entertainment, impulse, convenience, quality, price consideration, brand loyalty, and store loyalty. Consumers' computer/Internet experience is related to their knowledge of computers/Internet, as well as the frequency and duration of use. Studies have shown that computer experience and online shopping knowledge are positively and directly related to online behavioural acceptance, as better computer handling, online shopping and its functioning processes reduce consumers' concerns about online risks, leading to a higher degree of acceptance of commerce in a digital environment.

Based on theoretical generalizations, it is concluded that the key aspects of customer online shopping behavior include: browsing patterns; search behavior; decision process; buying habits; consumer engagement; shopping cart behavior; feedback and reviews.

Paragraph 3. Customer groups in food and beverage trade - consumer preferences

Interpreting leading studies helps to derive the proposition that, from a market perspective, the following customer groups can be identified:

- *DINKS - working, intensely busy, with minimal time* - they are typically tech-savvy, have a good career and leisure orientation, have no children, and have high incomes.
- *Families - greater flexibility in delivery times, more price sensitive and larger shopping baskets* - the average shopping basket is typically larger than for singles or couples, meaning minimum order value thresholds can be easily reached.
- *Seniors - an often unaccounted-for target group in e-commerce* - with a proper convenience orientation, shifting from weekly shopping to doorstep delivery.

➤ *Gourmets - specific preferences that physical retailers cannot serve - belong to a group that is less interested in the full weekly shop than in specialties and delicacies that local stationary retailers cannot offer them or can only offer them with long lead times.*

➤ *Day centres and creches - the trend towards more social care also leads to the potential for online food delivery - from a retailer's perspective, the benefit of delivering to day centres is that regular order volumes are generated and shopping trolleys are higher value, compared to a two-person household.*

➤ *SMEs - too small for wholesale, but a market segment with potential, such as law firms, agencies or medical practices that are increasingly using food delivery services to meet their office needs. The focus is on regularly recurring orders, such as coffee, milk, sugar, biscuits or even water.*

The study recognizes that changes and trends are occurring globally, such as: *mergers and acquisitions; new product launches; key market players.* Customers are systematised by the following criteria: *demographic segmentation; geographical segmentation; interests and hobbies; interaction with technology; behavioural segmentation; age, etc.*

Paragraph 4. Commercial practices and processes in food and beverage trade in a digital environment

Following the situational analysis of the food and beverage sector, it is found that conditions of profound transformation exist. Consumer preferences, rapid technological advances and global economic changes are creating a situation of both challenges and opportunities for companies in the sector. To remain competitive and grow in a dynamic environment, businesses need to adapt, innovate and adopt digital strategies that resonate with their target audience. The food and beverage sector is undergoing a technological revolution as automation, artificial intelligence (AI) and blockchain technology transform every aspect of the supply chain. From streamlining production processes to improving safety. These innovations are changing the way companies operate.

It concludes that the key commercial practices of an intensive digital presence are: engaging content; e-commerce capabilities; active optimisation; re-creating brand story; SEO and analytics.

Traditional methods and processes in the food and beverage sector are being replaced by technologies to increase efficiency and streamline operations. This transformation is being driven by the need for companies to address real-world issues such as:

- *supply chain management* - order tracking;
- *quality control and compliance* - a dedicated software application can be used to simplify the certification process;
- *consumer expectations* - through mobile apps, online ordering platforms and personalised marketing campaigns, customer engagement, loyalty and overall satisfaction can be improved;
- *fraud risk* - to address the growing concern about food fraud, businesses can use digital applications that assess vulnerabilities and implement risk mitigation strategies.

In summary, the first chapter draws the following conclusions:

✓ *The food and beverage market is online-centric, but requires careful management of safety, logistics and shelf life. Healthy and sustainable choices are a leading consumer trend that is driving innovation and adaptation in the sector.*

✓ *Success in digital commerce and social media is key to increasing sales, and trends such as website optimization and mobile apps are becoming critical to the customer experience. Technological innovation and digital transformation are changing consumer behavior by making online shopping more attractive and convenient.*

✓ *Users' personal characteristics, demographics and experience with the internet play an important role in their online behaviour. Personal preferences, such as convenience orientation and impulsivity, strongly influence the online purchase decision, especially when platforms offer personalized recommendations and easy access to discounts. Each customer group has specific needs and requirements.*

✓ *Digitalisation is a key enabler for increased efficiency and transparency in the supply chain, especially through technologies such as blockchain that facilitate product traceability. Companies that invest in engaging online content and mobile optimization can significantly improve customer experience and build loyalty.*

Chapter two. Methodological basis of food and beverage business models is presented through three paragraphs:

Paragraph 1. Relevant factors of food and beverage trade in a digital environment

The increasing penetration of e-commerce into people's lives is opening up new opportunities for the food and beverage industry, providing companies with a platform to reach a wider range of consumers. However, successfully selling groceries online requires flexibility and an innovative approach to address the unique challenges of this sector. *This brief explores the leading drivers of successful online food and drink retailing, examining both global experiences and specific business models that companies can apply to build a sustainable business in a digital environment. Key challenges for companies offering food and drink online include: an unstable supply chain and high prices; increasing health concerns; consumer purchasing power; and online store and service reviews.*

The long-term success of online grocery depends largely on the end-customers' experience of e-shopping. Existing business models cannot be directly applied to a digital environment. Such a transposition threatens the current profit margin of around 2 to 4% in the food trade. Moreover, there is a risk of a negative operating margin if the retailer acquires the food from the store itself and delivers it to the online customer at no extra cost. The following can be added as growth drivers in the online food and beverage sector: the increasing use of smartphones providing quick and easy access to online shopping worldwide; demand for alcoholic beverages; economic growth in new markets; the spread of organised retail and internationalisation; and population growth in particular regions of the world. Customer needs and preferences are evolving and this is driving new niche markets. Both the vegan and organic markets are benefiting from growing awareness of

sustainability and animal welfare. Foodies and content creators have an important role to play and are the trendsetters who are bringing products and recipes to the forefront and raising awareness through their recommendations and creative ideas. A relevant factor for the online food and beverage trade is the company itself, accompanied by the chosen business model.

Paragraph 2. Global experiences in online food and beverage trade

Global trends are identical given the impact of technology on people's lifestyles and consumer shopping habits and preferences. Apart from the store, purchases can now be made online or by contacting a call centre. It is important to note that not every customer is a tech-savvy internet user who knows how to navigate any type of website. The use of chatbots greatly optimizes the speed of responses from sales and/or technical support departments. This also affects the user experience. Augmented reality (AR) and virtual reality (VR) technologies are used to create engaging marketing campaigns and increase brand loyalty.

An analysis of several different international studies forms an overview of the current situation in the online food and beverage trade worldwide - DIN (German Institute for Standardization); THIMM Consulting GmbH + Co. KG, Northeim, provides a concrete overview of the current situation. The global experience offers different business model options: *the Freemium Model (SaaS business model), the Usage Based / On Demand Model, the E-commerce Model, the Market Model (peer-to-peer, two-sided market), the Hidden Revenue Generation Model, the Dark Store Model.*

The examples show what is possible in the food and beverage sector and how companies can use creative approaches to secure a competitive advantage in this competitive industry. A well thought out content strategy and authentic storytelling characterise many successful stores. Through the use of omnichannel strategies, social media, newsletters and blogs, companies can build customer loyalty and increase brand and product visibility.

Digital business models differ significantly from traditional ones. They are characterised by certain features that make them unique and show how they work in the digital age: *value creation through digital technologies; innovative nature; digital customer acquisition and distribution; digital unique selling proposition (USP); global reach without borders; scalability.*

In Bulgaria, there are three main business models in the online food delivery trade, which have been adopted mainly by restaurants and fast food chains: *the Aggregator Model*: the food delivery platform acts as an intermediary between customers and restaurants; *the Order and Delivery Model*: the food delivery platform manages its own delivery service; *the Inventory Business Model* - from the launch of the food delivery website/app to the preparation of orders and customer satisfaction, everything is done by the company for a fairly The platform owner controls the entire value chain.

Paragraph 3. Key features of a business model for food and beverage trade in a digital environment

*In the methodological part of the study, a "model" is understood as a version of the existing organizational structure, functions and processes that highlights its main parameters and presents key causal relationships in an understandable form. Models are an auxiliary construction of the original and do not represent its entire essence with all its characteristics. The combination of the two concepts *business* and *model* shows the relationship of the elements in the enterprise that are crucial not only for the realization of a positive result, but also for the offers of specific benefits.*

Based on the theoretical interpretation of the nature of online trade, the peculiarities of the food and beverage market, the segmentation of consumer groups and the relevant factors for conducting food and beverage trade in a digital environment, the following is a presentation of a business model of a company conducting food and beverage business entirely online. The first company in Bulgaria that has created a digital supermarket for digital food and beverage retailing - Canvinians JSC - is selected as the subject. The eBag

online store is owned by the company and has been operational since 2015. It started with deliveries only in Sofia. In the following years, a network developed and deliveries were made in Sofia, Plovdiv, Asenovgrad, Pazardzhik, Pernik, Bansko and Blagoevgrad.

The study presents a food and beverage delivery platform using the Canva business model. The study examines feasible solutions based on the analysis to subsequently adapt an offline trading model to an online environment when management strategies are improved. The Canva business model helps to identify opportunities in the internal and external environment of the enterprise, allowing visualisation and analysis of strategies over time. It embodies the value proposition in a viable business model, facilitating value addition for the enterprise.

Unlike traditional warehouses, which are located in hard-to-reach places - in industrial areas, food and beverage outlets from which orders can be fulfilled are in urban centres close to the end customers. This speeds up order processing and optimises delivery times. This way, companies can deliver goods to their customers much faster, resulting in a high volume of orders and higher sales revenues. Efficiency is increased when processes are properly structured and the business plan is implemented within the boundaries of strategic planning. Improved storage and inventory capacity is also achieved - the business model considered offers the possibility of a larger inventory, allowing for greater product availability and significant variety for customers.

The company's online grocery and beverage delivery warehouses are a key driver of competitiveness and cost efficiency. These spaces, designed exclusively for order preparation and shipment, require storage systems adapted to their specific characteristics. To maximize functionality, the storage system allows direct and immediate access to medium and lightweight units to enable rapid e-commerce order preparation.

Based on what has been studied and analyzed so far on the issues, an algorithm for creating and implementing a business model for food and beverage trading in a digital environment can be proposed (see Figure 1):



**Fig. 1. Adapted business model for food and beverage trade
in a digital environment**

Source: developed by the author

First stage. Market research and identification of demand for food and beverages. Identification of target audience and their preferences.

Second stage. Platform development is a key element of the online food and beverage delivery business model. The platform must be understandable, secure and offer a seamless experience for customers. It should have features such as ease of use, an ordering system, multiple payment options and a user-friendly interface. It is recommended to provide for the integration of features such as GPS tracking, real-time order updates and customer support.

Third stage. Establish partnerships with producers. It is necessary to build relationships with local producers who offer high quality food, reliable service and timely delivery. Incentives such as free advertising and promotions on the store platform can be offered to implement the stage. It is possible to negotiate commission rewards and offer attractive payment terms. If an aggregator model is chosen, partnerships should be built with delivery service providers. The company should ensure that delivery partners offer reliable and timely service to maintain customer satisfaction.

Stage Four. When developing the overall sales and promotional strategy, various digital marketing channels such as social media, email marketing and search engine optimization should be used to reach the target audience.

Fifth stage. To establish and maintain a customer retention system, prompt and reliable support must be offered to deal with queries, complaints and feedback. Different customer support channels such as email, chat and telephone are used to provide assistance. It is possible to integrate a chat bot or automated system to handle queries and common issues.

Sixth stage. Development of a sustainable revenue model that allows the company to cover costs and generate a profit. There are several possible revenue models that can be adopted for online food delivery, including commission-based, subscription-based, and ad-based.

Stage Seven. Permanently analyzing customer preferences is a strategy for adding special sections: 'newest', 'cheapest', 'promotions'. Recipes and videos positively influence sales. Observing what customers leave in their shopping baskets is important for the business model.

Eighth stage. Development of a methodology for making adjustments to business models to remain competitive. This may include exploring alternative revenue streams, revising commission structures, or expanding into adjacent markets, such as grocery supply. Flexibility and adaptability are key. Future innovations in the grocery sector represent advances in delivery technology, such as delivery by drones and autonomous

vehicles, improved sustainability practices to reduce environmental impact, and personalized recommendations based on consumer preferences and dietary restrictions.

Ninth stage. Establishment of a system for attracting new users to the activities of the enterprise. The purchase decision goes through the following steps - product recognition - product information - possibility and evaluation of alternative solutions (products) - purchase - purchase evaluation.

The main criteria for selecting a business model for a food and beverage store are the specific parameters of online and offline commerce, for example, for an online store they are: the maturity of e-commerce, the limitations for adaptability of services, the technological platform, the level of competition versus the characteristics of traditional commerce - attractive and commercial presentation; quality of staff and services; attractive promotions; self-service system; balanced assortment; adequate equipment, and layout adapted to customers.

The main propositions in chapter two lead to the following conclusions:

✓ *Maintaining supply chain stability and high product quality are key to attracting and retaining consumers in the online space. Consumer trust is a critical factor that requires good service and transparency, especially in perishable food trade.*

✓ *Innovation and adaptability of the business model can significantly increase competitiveness and optimize costs for shipping, warehousing and packaging. The integration of innovative technologies, such as chatbots and AR, significantly improves consumer engagement and facilitates the ordering process.*

✓ *Multiple business models such as subscriptions, dark stores and freemium successfully meet the needs of different types of customers, providing flexibility and competitive advantage. Key challenges such as correct packaging choice, hygiene and delivery reliability are crucial for online food and beverage sales. Online business success depends on carefully built partnerships with suppliers, go-to-market strategies and a strong technology platform to deliver a seamless customer experience.*

✓ *The platform should be easy to use, secure and adaptable, incorporating tracking and feedback features that help maintain high customer satisfaction. Building a business model based on the dark store model and automation significantly increases delivery efficiency and profitability in the online food and beverage industry.*

Chapter three. Practical and Applied Aspects of Adapting a Business Model for Offline Food and Beverage Trade in a Digital Environment is developed through the following paragraphs:

Paragraph 1. Presentation of a business model for offline trading of food and beverages

The object of the study in this paragraph is Pazzoni Market Ltd - the largest retail chain in Ruse region with 26 outlets. The company is active in retail trade of food and non-food products. The warehouse is divided into branches for different types of assortment, and there is also a packing shop for products supplied under the 'Pazzoni' brand. The basic elements of the studied business model are: Product range; Communication strategy; Sales strategy; Pricing strategy; Sales channels; Promotion plans; Customer service rules; Operating plan; Customer segments; Competition; Suppliers; Financial performance; Main revenue sources.

A comparative analysis of an offline model for food and beverage marketing and potential operation in a digital environment - advantages and disadvantages (see Table 1).

Table 1.

**Comparison of the traditional business model of Pazzoni Market Ltd.
and the online eBag store model**

Traditional business model of "Pazzoni Market" Ltd.	eBag online business model
ADVANTAGES	
<ul style="list-style-type: none"> • Established presence in local communities, building strong customer relationships and loyalty. • Direct interaction with customers, providing personalized service and immediate feedback. • Established distribution networks and supply chains for efficient operations. • Familiarity and trust associated with physical storefronts appealing to certain customer segments. • Understand local market dynamics and cultural nuances. 	<ul style="list-style-type: none"> • Global reach, allowing businesses to tap into a huge customer base across geographical boundaries. • Lower overheads compared to traditional models as there is no need for physical display cabinets. • Ability to leverage digital marketing strategies for targeted and cost-effective campaigns. • Predictions driven by customer behaviour and preference data, enabling personalised experiences. • Scalability and potential for rapid growth through online platforms. • Ability to maintain a wide assortment. • Possibility to buy 24 hours a day.
DEFICIENCIES	
<ul style="list-style-type: none"> • Limited geographic reach, making expansion and scaling challenging. • Higher operating costs associated with maintaining physical storefronts and inventory. • Vulnerability to market disruptions, economic downturns or changes in consumer preferences. • Limited use of digital channels and potential missed opportunities. • Dependence on foot traffic and local market conditions. • Limited shopping time. 	<ul style="list-style-type: none"> • Intense competition in the online market, requiring continuous innovation and differentiation. • Building trust and credibility in the absence of face-to-face interaction. • Cybersecurity risks and the need for robust data protection measures. • Reliance on digital infrastructure and internet connectivity, which can be susceptible to interruptions. • Limited ability to provide immediate and tactile experiences with products or services.
ADAPTATION OF THE OFFLINE MODEL TO THE ONLINE - HYBRID MODEL	

ADVANTAGES	DEFICIENCIES
<ul style="list-style-type: none"> • Ability to satisfy a variety of customer preferences by offering both physical and digital experiences. • Combining the convenience of online shopping with the trust and engagement of physical interactions. • Multiple revenue streams from offline and online channels. • Flexibility to adapt to changing market dynamics and consumer behaviour. • Synergy between physical and digital components enhancing the overall customer experience. 	<ul style="list-style-type: none"> • Complexity in effectively managing and integrating offline and online operations. • Higher initial investment to create physical and digital infrastructure. • Balancing the demands of the physical and online customer experience. • Navigating potential conflicts or challenges arising from the co-existence of different channels. • Continuous monitoring of market trends and technological advances to remain competitive.

In conclusion, the supermarket business model is a complex and multifaceted system whose main focuses are product selection, pricing, store layout, customer service, supply chain management, marketing and community engagement. By effectively managing these components, Pazzoni Market Ltd. is able to thrive in a competitive retail environment and provide customers with a convenient and satisfying shopping experience.

Paragraph 2. Analysis of consumer attitudes and satisfaction in online food and beverage trade

The study was based on the opinion of 220 respondents, 78 men and 142 women, selected using a purposive quota sampling method. A questionnaire was used to survey users in April 2024. Two criteria were taken into account for the selection of respondents: to have made online and offline grocery purchases within the last 2 years; to be aged 25-65 years.

The developed questionnaire, which was used as a data collection instrument, consisted of 2 demographic questions and 13 survey questions. Adequate literature review was the basis for developing the scale used in the map. Possible responses can be on a 5-point Likert scale (1 being high importance, to 5 being low importance) that encompasses several different "shades" of preference.

Through the survey, it was established: what is the satisfaction of the respondents towards the process of trading food and beverages in an offline environment and what are the attitudes towards switching to shopping in a digital environment. An essential element is to examine and compare the two types of sales: in stationary (physical) outlets and online.

It has been found that product quality is important to consumers. Another important factor is the speed of delivery, as well as the fact that time is saved. In the dynamic environment, online shopping has its prospects and future development. Internet commerce is increasingly being used by people who live far from large towns and shopping centres and this is a significant reason for choosing food and drink online.

Sustainability, as a strategy, is defining for customers. In this case, the company must consider the opportunities for socially responsible practices both in business development and in customer service (paper bags, cardboard accessories - cups, forks, packaging of hot foods from the display, bread, etc.). The results show that the inconvenience caused by bad weather forces consumers to be more inclined towards choosing online, over offline channels.

Respondents prefer to receive their purchases as quickly as possible - within 2 hours or half a day. This condition is difficult to achieve, especially if the company uses hired suppliers and does not have reliable control over shipments. That said, having an in-house supplier is a good alternative for service that would lead to increased control, influence and high customer satisfaction.

A few main barriers that have been identified are: delivery problems, unexpected costs, low quality products and difficulties in returning the purchase. Delays in delivery or the receipt of damaged products are common causes of dissatisfaction among consumers. Lack of up-to-date order status information also leads to dissatisfaction. Additional costs, such as high delivery charges or hidden fees, can frustrate consumers. Transparency in pricing is important to maintain trust and satisfaction.

It can be argued that consumer satisfaction with online purchases depends on multiple factors including convenience, variety, price, delivery and customer service. To

achieve high levels of satisfaction, online retailers should strive to offer not only quality products, but also excellent service, transparency and reliability. Availability of information is a leading motivator for online shopping. Although one of the key benefits of the Internet is its ability to simplify information searches and facilitate transactions, improvements in the use of innovative website technology require e-tailers to create positive customer relationships by offering a satisfying shopping experience.

Competitive prices and frequent promotions also contribute to high customer satisfaction. Many online platforms offer exclusive offers and discounts that are not part of the list in traditional stores, making online shopping more attractive. Quality is a criterion that is associated with a brand, image, and is a feature that is mandatory for survival in the grocery market. It is dependent on the method and timing of delivery, packaging and storage of products, the responsibility for which lies entirely with the seller. Untimely delivery to the buyer can be a significant problem if it leads to a reduction in the quality of the products purchased and a reduction in trust in the seller. An appropriate solution is to set up an in-house delivery department that the salesperson can directly control and meet the specified time for receipt of the purchase. In reality, this can only be done by those outlets making sufficient sales volume and serving limited local locations.

Paragraph 3. Guidelines for adapting the food and beverage business model in a digital environment

From the researched business model and the dynamics of the main economic indicators of the company with offline activities, it can be concluded that it is in a sustainable state for innovation. Possible options for organizational innovations in the business model related to this analysis are focused on:

- a) environmental protection measures beneficial to both the company's image and the geographical area;
- b) implementation of electronic labels to optimise the sales process;
- c) shopping with home delivery, via a platform;

d) a different experience or personal service that engages customers emotionally.

Based on the accumulated information on Pazzoni Marchetti Ltd, summarized above, the following business model of the company can be outlined (see Figure 2). Strategic planning is the key to a successful transition from offline to e-commerce. The business model canvas is a strategic management tool to quickly and easily define and communicate the idea or concept. It is a document that works through the basic elements of a business or product and structures the idea in a coherent way.

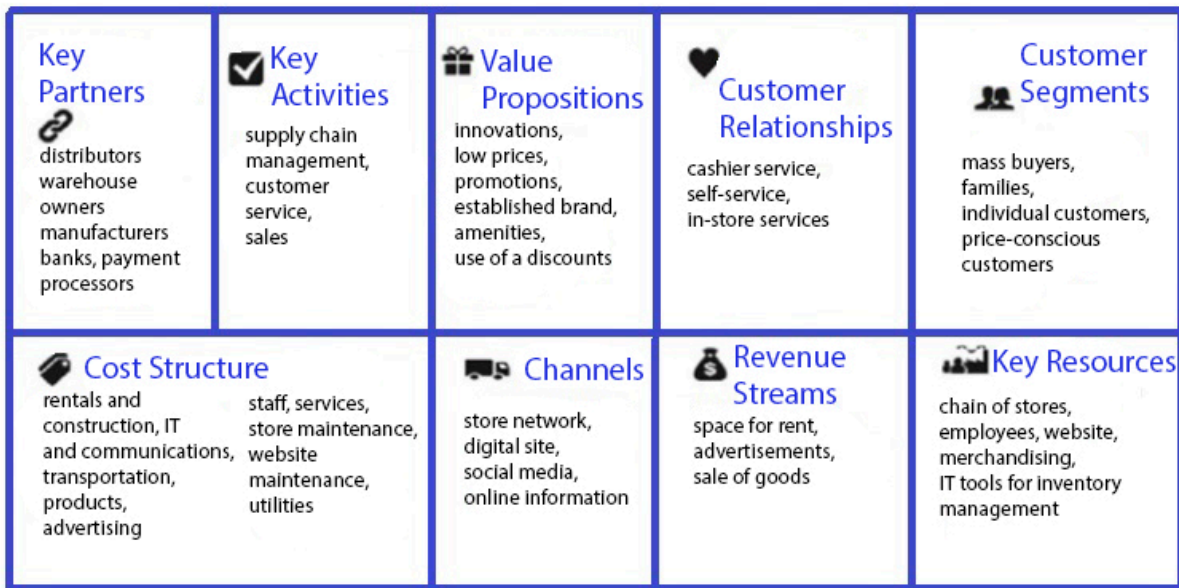


Fig. 2. Canvas of Pazzoni Market Ltd.

Source: developed by the author

The adaptation of the Pazzoni Market business model can be done based on a strategic analysis of the adaptation of each of the main elements of the Canva model: customers, key value activities, interactions, cost structure. The company's core revenue is generated through profit margins from offline sales. The new business model provides revenue from online trading and *several possible scenarios* can be proposed, namely:

Scenario 1: Working with an external logistics partner

This scenario is not about developing a platform, but only about adding the possibility of online ordering and home delivery from a product provider. In this case, on-site staff is needed to service the cart preparation. The relationship with a third party leads to an additional partnership agreement (see Figure 3).

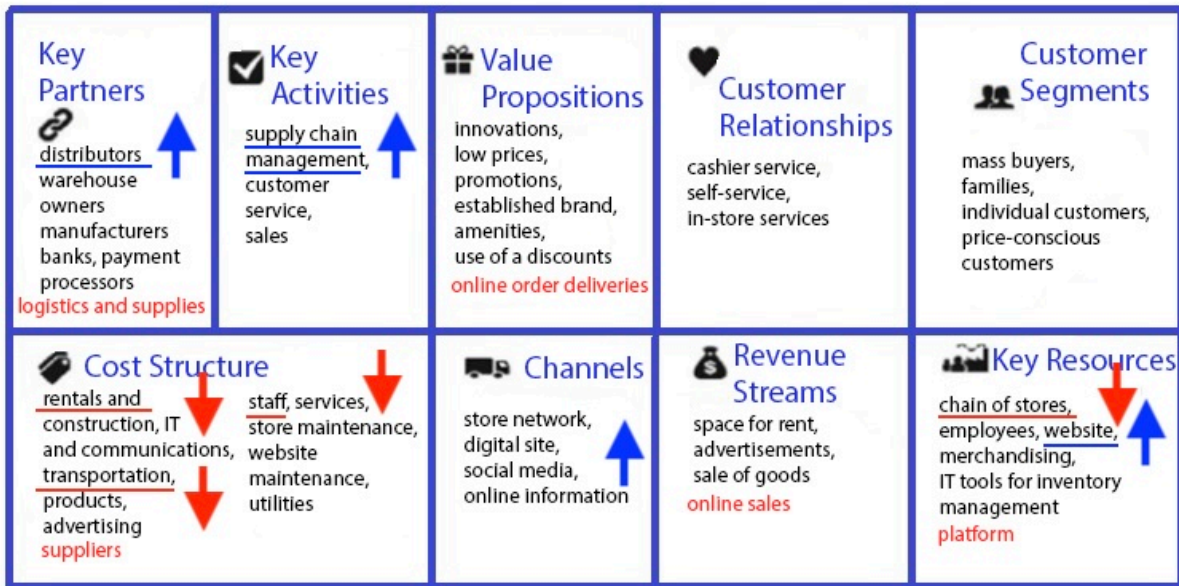


Fig. 3. Scenario 1 of business model

Source: developed by the author

Scenario 2: Selling products through an online marketplace

The partnership strategy is driven by the need to leverage the company's reputation and logistics resources managed by the online marketplace. The long-term orientation focuses on private label goods developed by Pazzoni Market Ltd (see Figure 4).

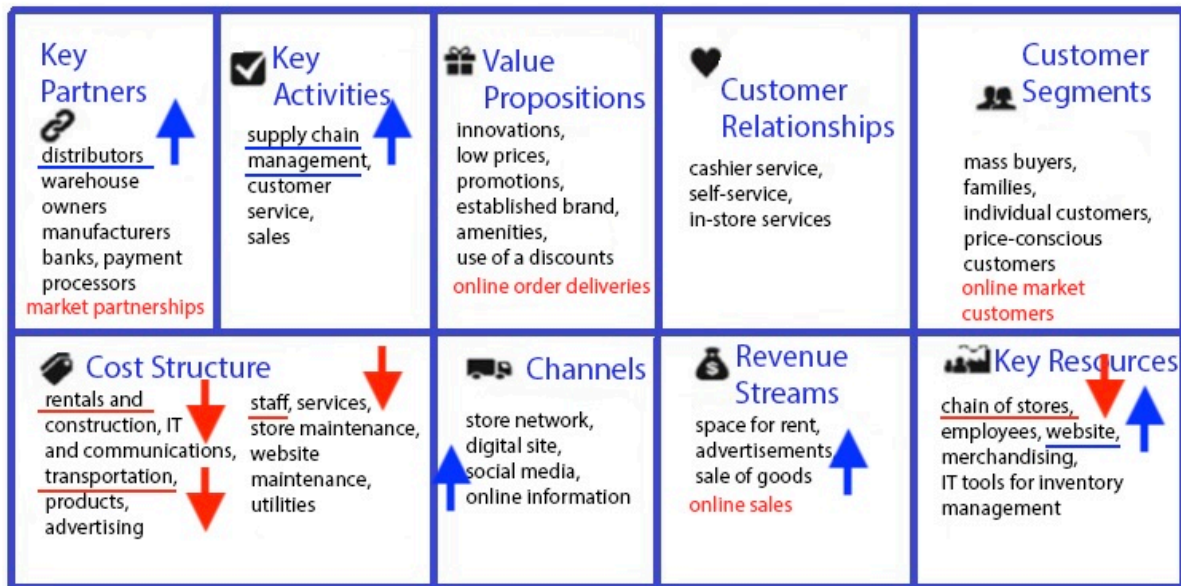


Fig. 4. Scenario 2 of business model

Source: developed by the author

Scenario 3: Business on a comprehensive digital platform

The company's multi-faceted platform can provide both products and operations in the B2C retail segment of the company, and also offer a business format for B2B sales: logistics partners; distribution partners; IT partners; other business partners wishing to sell or advertise on the platform; other retailers intending to sell products on the platform (see Figure 5).

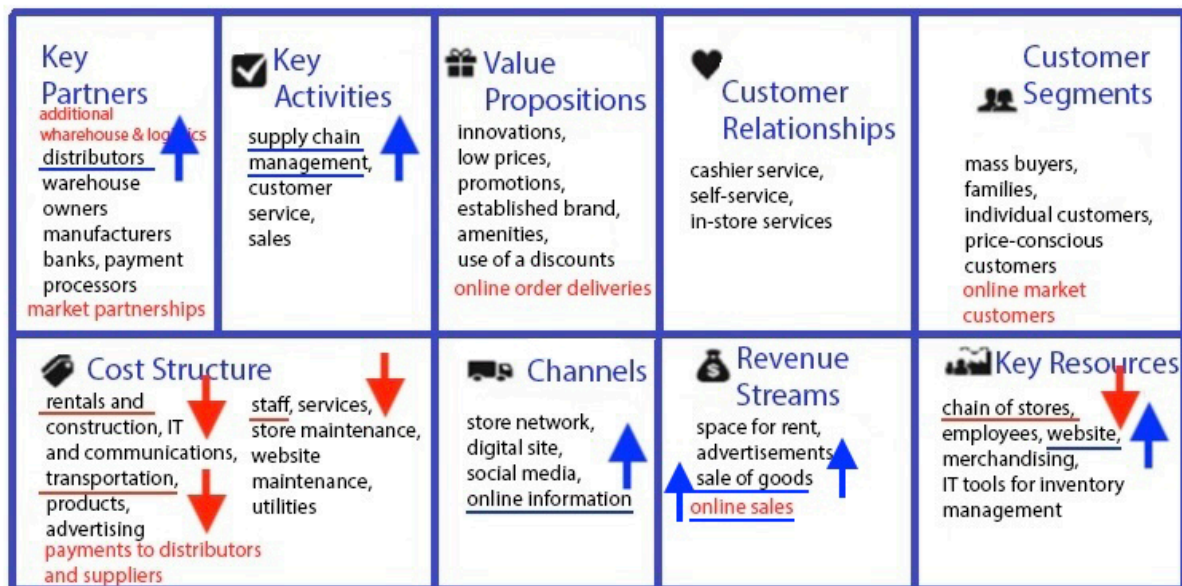


Fig. 5. Scenario 3 of business model

Source: developed by the author

In addition to everything said so far, the company can provide the development of a user-friendly app that allows customers to create shopping lists, check product availability, and place orders for pickup from a retail outlet or via delivery. By using data analytics, grocery stores can gain insight into customer preferences and shopping habits, allowing them to tailor promotions and inventory to better meet demand.

On the basis of the empirical study, the following conclusions to chapter three are reached:

1. The need for digitalisation: customers are increasingly looking for the convenience of online shopping, especially due to time-saving and deliverability. The introduction of an online ordering and delivery platform can extend the reach of Pazzoni Market and improve customer satisfaction.

2. *Own supply logistics: quality of supply is identified as a key factor for satisfaction. Developing and implementing your own delivery system ensures better control over the quality and speed of delivery, which is critical in maintaining product shelf life.*

3. *Focus on personalized service: the existing customer base of Pazzoni Market Ltd. can be preserved and expanded through personalized efforts in the digital environment, using data on consumer preferences and habits.*

CONCLUSION

The main generalizations from the overall theoretical and empirical study are synthesized:

- digitalisation leads to fundamental changes in the organisation of economic activity. Current society is epitomised by the creation of online social networks by users, access to a diversity of viewpoints and the ability to communicate ideas anywhere and anytime. Online purchases are becoming part of the daily lives of a large proportion of consumers on the World Wide Web;

- the food and beverage sector is leading the way in terms of e-commerce innovation, driven by trends such as personalization, mobile shopping, sustainability, D2C models, AR/VR, artificial intelligence and a focus on health and wellness;

- consumer habits are extremely dynamic. In recent years, their purchasing focus has gradually shifted to mobile devices. The active penetration of new technologies into consumers' lives is making their daily lives much easier;

- new e-commerce applications such as social networking, cloud computing and group shopping are popular. Online shopping is gradually becoming one of the world's preferred consumption methods. The aforementioned is also rapidly entering the business of buying and selling food and beverages. It is imperative that business models start to change. They are becoming more sophisticated and purposeful, built to adapt quickly to subsequent changes.

This dissertation seeks to adapt a completely offline business model for selling food and beverage products into a digital, alternative model for selling the assortment in an online environment. To this end, a theoretical review of the topic is conducted, from which basic characteristics of digital business, peculiarities of warehousing, packaging and delivery of food products, factors of buyer behavior in online shopping, customer groups in the sale of food and beverages, commercial practices and processes in the sale of food and beverages in a digital environment are derived. The methodological foundations of adapting a business model for grocery and beverage retailing are laid.

III. REFERENCE FOR THE SCIENTIFIC AND APPLIED CONTRIBUTIONS IN THE DISSERTATION WORK

As a consequence of the theoretical and empirical research conducted, the following major contributions of the thesis can be highlighted:

1. On the basis of theoretical interpretation, analysis and synthesis of key concepts, own generalizations are derived and leading characteristics for the online food and beverage market are highlighted.

2. Through a study of existing algorithms in specialized theory and practice, a business model for food and beverage trading is adapted for an offline retail outlet alongside activity in a digital environment.

3. As a result of an analytical study and our own survey, we have outlined the results of consumer attitudes and satisfaction with food and beverage trading in a digital environment.

4. Based on the accumulated empirical resource, the research business model is tested and specific recommendations are formulated to improve the processes of food and beverage trade in a digital environment.

IV. LIST OF THE PHD STUDENT'S PUBLICATIONS ON THE DISSERTATION TOPIC

Articles

1. **Ilchev, N.** Change of consumer behavior after the entry of e-commerce in Bulgaria. Scientific Journal of the Faculty of Economics of Infrastructure - UNWE. Trade in the Modern World - Trends and Best Practices, Book 15, Year 9, November 2020, pp. 145-149, ISSN 1314-0930.
2. **Ilchev, N.** Operational models for food and beverage marketing in a digital environment. Annual Almanac "Scientific Research of Doctoral Students", Academic Publishing House "Tsenov", volume XIV, book 17, 2021, pp. 555-564, ISSN 1313-6542.

Reports

1. **Ilchev, N.** Transformation of buyer's shopping behavior in digital environment. Proceedings of the International Scientific Forum "Global and National Business Transformations - Proactive Management, Financial and Accounting and Planning Solutions", Academic Publishing House "Tsenov", 25-26 October 2024, pp. 112-119, ISBN (print) 978-954-23-2513-0; ISBN (online) 978-954-23-2514-7.
2. **Ilchev, N.** Business models for online selling food products and beverages. Mehanizmy upravleniya razvitkom territorii: zbirnik naukovich pratsy. Nauchnoi praca participant's international scientific-practical conference. Polissia National University, Zhytomyr, 2024, pp. 291-295.

DECLARATION OF ORIGINALITY AND AUTHENTICITY

by **Nikola Ilchev Ilchev**

In connection with the procedure for the award of the degree of Doctor of Education and Science in the Doctoral Programme in Economics and Management (Commerce), I declare:

1. The results and contributions in the dissertation on "**Business model adaptation for trade of food and beverages in a digital environment**" are original and not borrowed from research and publications in which the author has no participation.

2. The information presented by the author in the form of copies of documents and publications, personally compiled reports, etc. corresponds to the objective truth.

3. The scientific results obtained, described and/or published by other authors are duly and extensively cited in the bibliography.

Svishtov

November 2024

Declarant:

/Nikola Ilchev, Ph.D. student/