IBN HALDUN UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF MANAGEMENT

MASTER THESIS

MAXIMIZING PRODUCTIVITY IN ONLINE BUSINESSES THROUGH TASK MANAGEMENT SOFTWARE: THE CASE OF ONLINE ENTREPRENEURS IN TURKIYE

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THESIS SUPERVISOR
ASST. PROF. OMAR KACHKAR

ISTANBUL, 2023

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by
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A thesis submitted to the School of Graduate Studies in partial fulfillment of the requirements for the degree of Master of Arts in Management

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APPROVAL PAGE

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Arts in Management.

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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ÖZ

GÖREV YÖNETİMİ YAZILIMLARI ARACILIĞI İLE ÇEVRİMİÇİ İŞLETMELERDE ÜRETKENLİĞİN MAKSİMİZE EDİLMESİ: TÜRKİYE'DEKİ ÇEVRİMİÇİ GİRİŞİMCİLER ÖRNEĞİ

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İnternetin ortaya çıkışı, işletmelerin çalışma şeklini değiştirerek çevrimiçi işletmeler kavramına yol açtı. Çevrimiçi işletmelerin yükselişi, girişimcilere ve kuruluşlara çok sayıda fırsat ve zorluk sunarak ticarette devrim yarattı. Bu çalışma, görev yönetimi yazılımı ile çevrimiçi işletmelerin üretkenliği arasındaki ilişkiyi keşfetmeyi amaçladı. Çalışmada nicel araştırma yöntemleri kullanılmış ve veri toplamak için anketler kullanılmıştır. Veriler, Türkiye'deki çevrimiçi işletmeler arasında çevrimiçi bir anket aracılığıyla toplanmıştır. Krejcie ve Morgan örneklem büyüklüğü tablosu kullanılarak 800 kişilik bir popülasyondan 260'lık bir örneklem büyüklüğü elde edildi. Çalışma, %96,2'lik bir yanıt oranını temsil eden 250'yi kullandı. Araştırmanın verileri, Sosyal Bilimler İstatistik Programı (SPSS) kullanılarak analiz edildi ve tanımlayıcı ve çıkarımsal istatistikler kullanıldı. Analizler, görev yönetimi yazılımının çevrimiçi iş üretkenliği ile olumlu ve önemli ölçüde ilişkili olduğunu ortaya koyuyor.

Anahtar Kelimeler: Algılanan Faydalar, Çevrimiçi İş Verimliliği, E-ticaret, Görev Optimizasyonu, Görev Yönetim Yazılımı, Kullanım ve Benimseme Oranı.

ABSTRACT

MAXIMIZING PRODUCTIVITY IN ONLINE BUSINESSES THROUGH TASK MANAGEMENT SOFTWARE: THE CASE OF ONLINE ENTREPRENEURS IN TURKIYE

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The advent of the internet has transformed how businesses operate, giving rise to the concept of online businesses. The rise of online businesses has revolutionized commerce, presenting entrepreneurs and organizations with numerous opportunities and challenges. This study aimed to explore the relationship between task management software and the productivity of online businesses. The study employed quantitative research methods and used surveys for data collection. The data was collected through an online survey among online businesses in Turkiye. The study used a sample size of 250, which represents a 96.2% response rate. The data for the study were analyzed using the Statistical Package for Social Sciences (SPSS) and employed descriptive and inferential statistics. The analyses reveal that task management software positively and significantly correlates with online business productivity.

Keywords: E-commerce, Online Business Productivity, Perceived Benefits, Task Management Software, Task Optimization, Usage and Adoption Rate.

DEDICATION

To my cherished family, Ayamba Norgah Issaku (my father), Mariama Issaku (my mother), Rahinatu, Karama, and Zuleiya (my sisters), Your unwavering love, boundless support, and constant encouragement have been my guiding lights. This thesis is a testament to the strength and unity you've instilled in me. With deep gratitude, I dedicate this achievement to each of you.

With all my love,
Gamel Issaku

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Gamel Issaku

ISTANBUL, 2023

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LIST OF SYMBOLS AND ABBREVIATIONS

AT	Accountability and Transparency
ALC	Adoption and Learning Curve
CC	Collaboration and Communication
DSPC	Data Security and Privacy Concerns
IEST	Integration with Existing Systems and Tools
OVB	Overhead and Administration Burden
POS	Potential Overreliance
SPSS	Statistical Package for Social Sciences
TMS	Task Management Software
TRM	Time and Resource Management
TOP	Task Organization Prioritization

CHAPTER I

INTRODUCTION

1.1. Background to the Study

The advent of the internet has transformed how businesses operate, giving rise to the concept of online businesses. An online business, also known as an e-commerce or electronic commerce business, refers to a commercial venture that conducts its operations primarily through digital platforms, utilizing the internet as a fundamental medium for buying, selling, and promoting products or services (Moukhtasser, 2021; Liu *et al.,* 2022). This business model has gained significant traction in recent years, offering entrepreneurs and organizations various opportunities for growth and expansion (Fernandes *et al.,* 2022). Online businesses encompass multiple industries and sectors, catering to diverse consumer needs (Cockburn-Wootten & McIntosh, 2020). Online businesses can be owned by individuals, small businesses, or even large corporations, and they appear in the form of e-commerce retailers, service providers, digital products and content providers, and Software as a Service (SaaS) Companies (Heinemann, 2023).

The internet has provided a level playing field for entrepreneurs, allowing individuals to establish and operate their online businesses with relatively low startup costs and reduced barriers to entry. This has facilitated the rise of solopreneurs and microbusinesses, enabling individuals to showcase their skills, reach a global audience, and compete with established players in their respective industries (Fuzi, 2016). Moreover, traditional brick-and-mortar businesses have recognized the online marketplace's potential and expanded their operations to include an online presence (Pozzi, 2013). These established businesses leverage their brand reputation and existing customer base to tap into the growing online market, adopting e-commerce strategies to complement their physical stores (Tolstoy *et al.,* 2021).

Online businesses in Turkiye have experienced significant growth and transformation in recent years, driven by advancements in technology, changing consumer behaviors, and a supportive entrepreneurial ecosystem (Belitski & Büyükbalci, 2021). As a country situated at the crossroads of Europe and Asia, Turkiye's online business landscape reflects a blend of traditional markets and modern digital commerce (Bei, Montazer & Ghavamifar, 2007). The e-commerce sector is dynamic and diverse, with businesses leveraging various strategies to tap into the growing digital consumer base (Tolstoy et al., 20201). The government's efforts to support entrepreneurship and digital infrastructure further contribute to the expansion of online businesses across the country (Sussan & Acs, 2017).

The rise of online businesses has revolutionized commerce, presenting entrepreneurs and organizations with numerous opportunities and challenges (Modgil *et al.*, 2022). With the internet offering unparalleled connectivity and accessibility, entrepreneurs and small and large corporations are leveraging the potential of online ventures to maximize their productivity and achieve remarkable success (Elia *et al.*, 2020). However, in a fast-paced and dynamic online business environment, managing many tasks and responsibilities can be overwhelming without effective organizational tools (Mikalef *et al.*, 2021). To address this challenge, task management software has emerged as a valuable tool for online businesses. Task management software refers to a category of digital solutions designed to aid individuals and teams in organizing, prioritizing, and tracking tasks and projects (Soboleva & Karavaev, 2020; Kerzner, 2022). By providing features such as task assignment, progress tracking, deadline management, and collaboration tools, task management software solutions empower businesses to optimize their productivity and enhance their overall performance (El Mounla *et al.*, 2023).

Task management software has become increasingly prominent as digital entrepreneurs and teams navigate the complexities of virtual environments (Papadonikolaki *et al.*, 2022). Task management software offers online businesses a centralized platform to organize, prioritize, and track tasks and projects, facilitating effective communication, collaboration, and task allocation within teams. It is designed to offer a range of features and functionalities that enable online businesses to streamline operational workflows, minimize delays, improve communication and

collaboration, and optimize productivity (Siddiqui, 2019; Kumar & Sharma, 2021). Online businesses utilize these features to manage various operations, including project management, content creation and publication, customer service, and marketing campaigns (Berman, 2012). By utilizing task management software, businesses can create and maintain structured workflows, assign responsibilities to team members, monitor progress, and ensure the timely completion of tasks and projects (Iftikhar et al., 2017).

As the digital landscape becomes more competitive and complex, online businesses have increasingly recognized the need for effective task management solutions to stay organized and productive (Volberda et al., 2021). Small companies and startups often adopt task management software from the early stages of their operations to establish structured workflows and facilitate collaboration among team members (Giardino et al., 2015). Established online businesses and corporations also recognize the benefits of task management software, leading to increased adoption rates across various industry sectors (Khan et al., 2021). Factors such as the need for streamlined processes, scalability, and the desire to enhance online business productivity have contributed to the massive adoption of task management software (Sepasgozar et al., 2023).

Also, corporations that handle a large volume of tasks and projects simultaneously often turn to task management software to avoid confusion, minimize errors, and ensure efficient resource allocation. Additionally, the scalability of task management software allows businesses to adapt and grow as their operations expand, accommodating the increasing complexity and demands of their workflows. Moreover, the increased prevalence of remote work and distributed teams have also contributed to the adoption of task management software. With geographically dispersed team members, online businesses rely on these tools to maintain effective communication, collaboration, and task coordination (Morrison-Smith & Ruiz, 2020). Task management software offers real-time updates, file sharing, and commenting features that enable team members to work together seamlessly, regardless of physical location (Gaffney et al., 2019).

However, despite the growing adoption rates, challenges are still associated with implementing and effectively using task management software in online businesses.

Some businesses may encounter difficulties onboarding team members, integrating the software with existing systems, or adapting workflows to align with the software's features. Resistance to change and lack of training or familiarity with the software may also hinder task management software's successful adoption and utilization (Finkel et al., 2021; Suvanto, 2022). Therefore, to effectively leverage the potential of task management software, it is crucial to examine how online businesses incorporate it into their workflow and to what extent it is utilized. By understanding the usage patterns and adoption rates, researchers can identify the factors that influence the decision-making process of businesses when selecting and implementing task management software.

Furthermore, while there is a general belief that task management software enhances productivity and efficiency, it is essential to identify and explore the specific benefits perceived by online businesses. Hence, by investigating the perceived benefits, researchers can shed light on how task management software positively impacts productivity, collaboration, time management, and overall business performance. Also, understanding these benefits will enable organizations to make informed decisions when considering the adoption of task management software and provide insights for optimizing its usage. In addition to the benefits, it is equally important to acknowledge and address the limitations and challenges associated with implementing and using task management software in online businesses.

To this end, this research sought to explore the usage patterns and adoption rates, perceived benefits, challenges, and limitations of task management software towards enhancing the productivity of online businesses of varied kinds. Also, the study assessed the relationship between task management software implementation and the productivity of online businesses.

1.2. Problem Statement

Online business activities encompass commercial endeavors conducted primarily or exclusively through the internet. These activities include e-commerce, where businesses sell products or services online, digital marketing campaigns, content creation and distribution, remote service provision, and more (Alzoubi *et al.*, 2022).

The online business landscape offers unparalleled global reach, scalability, and cost-effectiveness opportunities, attracting entrepreneurs and businesses of all sizes (Hajkowicz et al., 2016). Effective task management is crucial for online businesses to maintain efficiency and stay competitive in today's dynamic environment (Harsch & Festing, 2020). Task management involves organizing, assigning, tracking, and monitoring tasks and projects to ensure they are completed efficiently and within deadlines (Kerzner, 2018). This is where task management software plays a vital role.

The lack of effective task management systems in online businesses hampers productivity and limits growth potential (Le et al., 2019). The role of task management software goes beyond simple to-do lists or spreadsheets. These software tools provide online businesses with a comprehensive solution to manage complex projects, coordinate teams, allocate resources, and track progress effectively (Lasni & Boton, 2022). They offer visibility into task dependencies, milestones, and deadlines, enabling businesses to optimize their operations and make informed decisions (Rejeb et al., 2022). With the increasing complexity of online business activities and the rise of remote work, task management software has become an essential asset. It facilitates effective communication and collaboration among geographically dispersed teams, enhances accountability, minimizes errors and delays, and enables businesses to adapt and scale their operations as needed (Perfetto & Vargas-Sánchez, 2018).

Despite the increasing prevalence of online businesses and the growing availability of task management software, there is a lack of comprehensive research on the specific role of task management software tools in maximizing productivity within online business environments in Turkiye. While there is a general understanding that effective task management is crucial for productivity, there is a need to explore the features, functionalities, and benefits of task management software in the context of online businesses. Additionally, literature on the impact of task management software on various aspects of productivity, such as time management, collaboration, task prioritization, and overall workflow optimization, is scanty. This calls for a thorough investigation into the effectiveness and utilization of task management software in online businesses. By addressing this gap in the literature, the study seeks to provide a deeper understanding of how task management software can be leveraged to enhance

productivity, streamline workflows, and improve overall performance within the online business realm.

While online businesses offer numerous opportunities for growth and success, the challenges of managing tasks and optimizing productivity in virtual environments remain significant. The role of task management software in maximizing productivity in online businesses has gained attention, but there is a lack of comprehensive research exploring its effectiveness, impact, and potential benefits. The study therefore explores the relationship between task management software and online business productivity.

1.3. Research Objectives

The specific objectives of this research were:

I. To examine online businesses' usage patterns and adoption rates of task management software.
II. To identify the perceived benefits of task management software in enhancing productivity and efficiency in online businesses.
III. To explore the limitations and challenges associated with online businesses' implementation and use of task management software.
IV. To assess the relationship between task management software and the productivity of online businesses.

1.4. Research Questions

The research questions for the study were:

I. What are online businesses' prevailing usage patterns and adoption rates of task management software?
II. What are task management software's perceived benefits in enhancing productivity and efficiency in online businesses?
III. gement software?
IV. WhWhat are online businesses' limitations and challenges in implementing and utilizing task manaat is the impact of task management software on the productivity of online businesses in Turkiye?

1.5. Research Hypothesis

H_1: There is a significant relationship between task management software and the productivity of online businesses in Turkiye.

1.6. Significance of the Study

This study holds significant importance for online businesses, entrepreneurs, influencers, solopreneurs, online tutors, content creators, and other professionals operating in the digital realm. By exploring the role of task management software in maximizing productivity and efficiency, the findings will provide valuable insights and practical guidance to enhance operational performance, streamline processes, and achieve business objectives effectively. The study will contribute to the existing knowledge base by shedding light on the benefits and challenges of task management software in online businesses. This study also seeks to contribute to the current knowledge on maximizing productivity in online businesses by utilizing task management software. The findings will provide valuable insights for online business owners, managers, and employees, enabling them to make informed decisions regarding adopting and utilizing task management software.

Moreover, this research will benefit software developers and providers by identifying areas for improvement and innovation in task management software design and functionality, catering specifically to the needs and challenges of online businesses. The study also seeks to contribute to the existing body of knowledge by providing a comprehensive understanding of the role of task management software in maximizing online business productivity. The study's findings will also guide and provide a valuable source of information for future researchers to conduct more research in the area.

1.7. Scope and Limitations

This research focuses specifically on online businesses, entrepreneurs, influencers, solopreneurs, online tutors, content creators, and similar professionals who operate within the digital realm. The study will primarily examine task management software's

usage patterns, perceived benefits, and limitations in enhancing productivity and efficiency. However, the research does not encompass the technical aspects of developing task management software or comparing specific software tools. The study acknowledges that the effectiveness of task management software may vary depending on individual preferences, business contexts, and external factors.

1.8. Organization of the Study

The study is organized into five chapters. Chapter two presents the literature review. The components are conceptual review, theoretical review, empirical review, and conceptual framework. Chapter three presents the methodology employed by the study. In chapter four, the data from the field survey is analysed, and results are obtained. The results are further discussed in the chapter. The last chapter, chapter five, presents the conclusions and recommendations of the study.

CHAPTER II

LITERATURE REVIEW

The study sought to assess the relationship between task management software and the productivity of online businesses. This chapter presents the relevant literature about the research objectives. Chronologically, the chapter presents the theoretical review, conceptual review, empirical review, and conceptual framework.

2.1. Theoretical Review

In the context of task management software and productivity in online businesses, several theoretical frameworks and models can provide insights and guide research endeavors. Two notable frameworks are the Technology Acceptance Model (TAM) and the Job Demands-Resources (JD-R) model. These theories served as the lenses through which the study was carried out.

2.1.1. Technology Acceptance Model (TAM)

To describe how people embrace information technology, Fred Davis created the Technology Acceptance Model (TAM) in 1986 (Lai, 2016). The primary purpose of TAM is to clarify "the general factors of computer acceptance that contribute to explaining users' behavior across a broad range of end-user computing systems and user groups" (Lai, 2015). Perceived ease of use (PEU) and perceived usefulness (PU) are the two fundamental assumptions of this approach. According to Venkatesh and Davis (2000), PEU measures how much a system's potential users expect it to operate without issue, while PU measures how likely a user is to use a particular system. As a result, it predicts how people will utilize and embrace technology and information systems (Clayton, 1997).

The technology acceptance model (TAM) is presented as a cognitive framework within the broader field of information systems research to explain how perceived usefulness and ease of use influence individual usage intentions (Davis et al., 1989).

The TAM has the advantage that some of its predictions can be taken as accurate, allowing for a more in-depth examination of related constructs (Venkatesh et al., 2007). According to Venkatesh and Davis (2000), many theoretical models have been suggested to enhance our comprehension of the numerous factors contributing to information technology acceptance. Lai (2017) noted that, among other models, the TAM is the one that best predicts information technology (IT) adoption behavior.

According to Davis (1989), TAM essentially offers a fundamental framework for the research of technology acceptance behavior to demonstrate external circumstances' influence on behavioral ideas. It is founded on these two fundamental ideas: perceived usefulness, or the users' subjective sense of an improvement in job performance following acceptance and usage of a computer, and perceived ease of use, or the users' subjective perception of the ease in utilizing a computer system (Davis et al., 1989). These two fundamental ideas affect how the user views beneficial computer software, which indirectly affects the user's adoption of technology.

Christensen (2006) developed the present phase of TAM, which does away with the requirement for an attitude construct. This was TAM 2, which postulated that users' assessments of a system's usefulness are influenced by their internal assessments of the connections between work objectives and the results of performing job activities using a particular system (Christensen, 2006). The main premise of TAM in this study is to explain users' perceived ease of use and perceived usefulness of task management software in enhancing the productivity of online businesses.

2.1.2. Job Demands-Resources (JD-R) Model

The Job Demands-Resources (JD-R) model, proposed by Bakker and Demerouti (2017), offers a theoretical lens to examine the relationship between task characteristics, resources, well-being, and performance. According to this model, tasks can impose various demands on individuals, such as workload, time pressure, and complexity. The JD-R paradigm starts with the premise that different job characteristics can be usefully separated into job demands and resources. A job demand, according to the definition provided by Baker and Demerouti (2007), is "those physical, psychological, social, or organizational aspects of the job that call for

sustained physical effort or skills (cognitive or emotional) and are consequently associated with specific physiological or psychological costs." A job resource, according to the definition given by Ba'ker and Demerouti (2007), is "those physical, psychological, social, or organizational aspects of the job that are either/or (1) functional in achieving work goals, (2) reduce job demands and the physiological and psychological costs associated with them, or (3) promote personal growth, learning, and development."

According to the JD-R paradigm, specific tasks (such as interruptions and feedback from the task), work (like workload and autonomy), social interactions (like social support from coworkers), and teams (like pressure from group work) are all levels at which job demands and job resources can be found. Although they were previously incorporated in earlier models (such as Karasek, 1979), the general work traits that make up the JD-R model are still highly relevant today (Parker, Wall, & Cordery, 2001). Aspects of the job that are particular to the profession being studied are also covered, such as student misbehavior for teachers (Bakker et al., 2007), positive patient interactions for dentists (Hakanen, Bakker, & Demerouti, 2005), dealing with pain and death for hospital nurses (Sundin, Hochwalder, & Lisspers, 2011), and unfriendly customer behavior for service employees (Walsh, 2013). Home demands and resources (such as home overload and family support) have also been studied from the JD-R perspective (e.g., Hakanen, Schaufeli, & Ahola, 2008).

Thus, the JD-R model utilizes a wider context. It links the results of burnout and work engagement to these demands and resources. For this study, online businesses face complexities that require resources to function adequately. Resources like task management software can help individuals cope with these demands and promote positive outcomes. Applying the JD-R model, researchers can explore how task management software provides resources to reduce job demands, enhance well-being, and ultimately contribute to higher productivity in online businesses (Bakker & Demerouti, 2017; Hakanen et al., 2020).

2.2. Conceptual Review

This section presents the concepts used in the study. It presents an overview of online business, task management software, its benefits, limitations, and challenges.

2.2.1. Overview of Online Business

The rise of the internet and digital technologies has revolutionized the business landscape, leading to online businesses' emergence and rapid growth. The definition of online business throughout the literature is seemingly the same. For instance, Apte and Davis (2019) assert that online businesses, also known as e-businesses or Internet-based businesses, operate primarily or exclusively through digital platforms, leveraging the power of the internet to reach customers, facilitate transactions, and deliver products or services. Also, Daniel et al. (2015) explained that the term online business refers to the commercial activities conducted primarily or exclusively through the internet and digital platforms. It encompasses many businesses that utilize digital technology to deliver products, services, or information to customers globally. Online businesses operate in various sectors, including e-commerce, digital marketing, online consulting, and content creation. Online businesses leverage the power of the Internet to reach a broader customer base, transcend geographical boundaries, and operate with lower overhead costs compared to traditional brick-and-mortar establishments (Ram & Sun, 2020; Iheanachor et al., 2021).

Researchers have traced the origins of online businesses to the early days of the Internet, with the commercialization of the World Wide Web in the 1990s. Since then, online businesses have transformed various industries, disrupting traditional business models and creating new avenues for commerce (Christensen et al., 2018). Studies have documented the remarkable growth and global reach of online businesses. eMarketer's (2020) research projected that worldwide retail e-commerce sales would reach $4.2 trillion in 2020, representing a significant share of global retail sales. The rapid growth and expansion of online businesses are widely presented in the literature. Also, several studies reveal that the increasing availability and accessibility of the Internet have led to a significant rise in online entrepreneurship and e-commerce activities (e.g. Simpson & Docherty, 2004; Ho et al., 2007; Pantelimon et al., 2020).

The growth in online businesses can be attributed to lower barriers to entry, wider reach, cost-effectiveness, and convenience to both companies and customers (Kamruzzaman, 2023).

The literature identifies various types and models of online businesses. One of the most prevalent forms identified is E-commerce, the buying and selling of products or services online. Online retailing, including both business-to-consumer (B2C) and business-to-business (B2B) transactions, has gained significant traction (Dumanska et al., 2021). Additionally, the growth of online marketplaces and platforms, where multiple sellers offer products or services to a broad customer base, is highlighted in the literature (Rosário & Raimundo, 2021). Moreover, the emergence of the gig economy has led to the rise of online service-based businesses. These businesses connect clients with freelancers or independent contractors who offer specialized skills or services remotely (Mahato et al., 2021). Previous studies have emphasized that these models' flexibility and scalability enable individuals to monetize their expertise and businesses to access a global talent pool.

Furthermore, content-based businesses, such as blogging, vlogging, podcasting, and social media influencing, have also gained prominence. These businesses generate revenue through advertising, sponsorships, subscriptions, or donations, leveraging their online presence and engaging audiences (Dollwet, 2020). Online businesses employ a variety of business models and strategies to thrive in the digital landscape. Models such as e-commerce platforms, online marketplaces, subscription-based services, and digital content creation are among others identified in the literature. Also, strategies, including customer acquisition and retention, digital marketing, personalized user experiences, and data-driven decision-making, are used by online businesses (Remané et al., 2022).

E-commerce platforms have experienced tremendous growth, allowing businesses to sell products and services online, and reaching a global customer base (Andonov et al., 2021). Additionally, the rise of social media platforms and digital marketing strategies has opened up new avenues for entrepreneurs, influencers, solopreneurs, online tutors, content creators, and others to establish and expand their online presence (Combatting, 2021). As technology advances and consumer behavior changes, trends in the online

business environment continue to evolve. One notable trend is the increasing emphasis on personalization and customer experience (Zhang et al., 2021). Online businesses leverage data analytics and AI-powered tools to understand customer preferences and deliver tailored products, services, and content. Another trend is the growing popularity of mobile commerce, with a significant portion of online transactions now taking place on smartphones and tablets (Nwachukwu & Affen, 2023). Moreover, the integration of emerging technologies, such as virtual reality (VR) and augmented reality (AR), is revolutionizing the way online businesses engage with customers and provide immersive experiences (Balasubramanian, 2022).

2.2.2. Online Business in Türkiye

Online businesses in Turkiye have witnessed a rapid transformation in recent years, propelled by the increasing internet penetration rate and a growing digital-savvy population (Holloway, Green & Livingstone, 2013). These businesses encompass a wide range of activities, from e-commerce platforms to content creation, online tutoring, and influencer marketing (Chaffey, Edmundson-Bird & Hemphill, 2019). Efficient task management is a crucial component of these diverse online business activities, and the utilization of task management software has gained prominence in enhancing productivity and streamlining operations among online businesses in Turkiye (Bayraktar *et al.*, 2007). Task management software provides online entrepreneurs and solopreneurs with tools to effectively manage their businesses. Features like task tracking, deadline setting, and collaboration enhance organizational efficiency. Platforms like Trello and Asana are commonly used for task management by these groups (Sutherland & Janene-Nelson, 2020).

For content creators, task management software aids in content planning, creation, and distribution. These tools help in scheduling posts, tracking content ideas, and maintaining editorial calendars. Notable software includes Evernote, Notion, and Google Workspace (Frick, 2013). Also, task management software facilitates scheduling and conducting online tutoring sessions. It also assists in managing student progress, assignments, and communication. Applications like Microsoft Teams and Zoom are often used for tutoring purposes (Suliman, 2021). In addition, influencers often collaborate with brands and manage multiple partnerships. Task management

software helps influencers track brand collaborations, content creation deadlines, and social media posting schedules. It aids in maintaining professionalism and meeting contractual obligations (Nunes, 2019).

2.2.3. Task Management Software

A task manager is someone who monitors a task throughout the system's life cycle and makes decisions depending on the system's development (Fauzan & Nugraha, 2017). Task creation, planning, assignment, tracking, and reporting are some of the tasks used in task management, which are created utilizing software (Rickayzen, 2004). Task management software refers to digital tools and applications designed to facilitate the planning, tracking, and organization of tasks and projects. These software applications offer a range of features such as task creation, assignment, progress monitoring, deadline management, collaboration, and communication capabilities. With the use of task management software, users can create, assign, prioritize, and track projects from a single location, facilitating effective teamwork and streamlined individual productivity. The software allows online businesses to manage tasks more effectively, enhance collaboration among team members, improve time management, and ensure accountability. Popular task management software tools include Trello, Asana, Monday.com, and Wrike (Raza et al., 2020; Chae, 2019; Muzamil et al., 2021).

2.2.4. Features of Task Management Software

Task management software offers a range of features designed to enhance productivity, organization, and collaboration in online businesses. Paul et al. (2015), Erdelt (2022), and Gao et al. (2022) assert that the common features found in task management software include:

Task Creation and Assignment: Users can create tasks, assign them to specific individuals or teams, set due dates, and establish priorities;

Task Tracking and Progress Monitoring: The software allows users to track the progress of tasks, view updates, and receive notifications on task status and deadlines;

Deadline Management: Users can set deadlines for tasks and receive reminders to ensure timely completion;

Task Prioritization: The software enables users to prioritize tasks based on their importance and urgency;

Collaboration and Communication: Users can collaborate with team members, share task-related information, exchange comments and feedback, and attach files within the software;

File and Document Management: Task management software often provides features for attaching files and documents to tasks, facilitating seamless document sharing and version control;

Calendar Integration: Integration with calendar applications allows users to synchronize task deadlines, appointments, and meetings;

Reminders and Notifications: Users can receive notifications and reminders via email, mobile push notifications, or in-app notifications to stay updated on task progress and upcoming deadlines;

Reporting and Analytics: The software may offer reporting and analytics functionalities, providing insights into task completion rates, team performance, and productivity metrics.

2.2.5. Types of Task Management Software

Task management software can be categorized into different types based on functionalities and intended use. According to Samihardjo et al. (2020) and Erdelt (2022), some common types of task management software include:

Simple To-Do List Apps: These apps focus on basic task management, allowing users to create and organize simple to-do lists, set deadlines, and track task completion.

Kanban Boards: Kanban-based task management software uses boards with columns representing different stages of tasks (e.g., to-do, in progress, completed). Users can move tasks across the board to visualize workflow and track progress.

Project Management Software: Project management software provides a comprehensive set of features for managing complex projects, including task assignment, resource allocation, scheduling, budgeting, and reporting.

Team Collaboration Platforms: These platforms combine task management with communication and collaboration features, facilitating team coordination, file sharing, and real-time communication.

2.2.6. Comparison of Popular Task Management Software Tools

Several popular task management software tools are available in the market, each offering a unique set of features and capabilities. Some widely used task management software tools include:

Trello: Trello is a Kanban-based task management tool that allows users to create boards, lists, and cards to organize tasks visually. It provides a simple and intuitive interface for tracking and managing tasks.

Asana: Asana is a versatile project management and task tracking tool that offers features such as task assignment, deadline management, collaboration, and progress tracking. It is suitable for managing both personal and team tasks.

Todoist: Todoist is a feature-rich to-do list app that enables users to create and organize tasks, set due dates, prioritize, and collaborate with others. It offers cross-platform integration and supports various productivity features.

Basecamp: Basecamp is a comprehensive project management and team collaboration platform that provides task management, communication tools, file sharing, and scheduling features. It is known for its user-friendly interface and ease of use.

Microsoft Planner: Microsoft Planner is a task management tool integrated with the Microsoft Office 365 suite. It offers features for creating and assigning tasks, organizing them into buckets, and tracking progress using a visual interface.

Factors such as ease of use, scalability, integration capabilities, pricing, and specific features should be considered when comparing these task management software tools. Each software tool has its strengths and weaknesses, and the choice of the most suitable tool will depend on the specific needs and preferences of the online business. For instance, Trello, with its intuitive Kanban board interface, is ideal for individuals or small teams looking for a visual and straightforward task management solution. It also excels in its simplicity and ease of use, making it a popular choice for personal and small-scale project management. On the other hand, Asana offers a more comprehensive set of features suitable for managing complex projects and larger teams. Its robust task assignment, deadline management, and collaboration capabilities make it a versatile tool for businesses of various sizes.

Moreover, Todoist is well-regarded for its extensive task management features and ability to integrate with other productivity tools and platforms. It is known for its clean and user-friendly interface, making it a preferred choice for individuals seeking a powerful and customizable to-do list app. Another type, Basecamp, is notably recognized for its emphasis on team collaboration and communication. It combines task management with features like file sharing, scheduling, and messaging, providing a centralized platform for teams to coordinate and collaborate effectively. Also, Microsoft Planner, integrated with the Office 365 suite, is suitable for businesses already utilizing Microsoft's productivity tools. It offers seamless integration with other Microsoft applications, making it convenient for users familiar with the Microsoft ecosystem.

When selecting a task management software tool, it is crucial to assess the specific needs of the online business, consider the scale and complexity of projects, evaluate the desired level of collaboration, and consider budgetary constraints. Comparing these popular task management software tools based on their features, user reviews, and pricing will help online businesses make informed decisions that align with their requirements and enhance their productivity and efficiency.

2.2.7. Benefits of Task Management Software in Online Businesses

I. Improved Task Organization and Prioritization

Task management software provides online businesses with improved organization and prioritization of tasks. With the ability to create, categorize, and assign tasks within the software, businesses can effectively manage their workload and ensure that important tasks are given appropriate attention. The software allows for the creation of task hierarchies, dependencies, and deadlines, enabling businesses to prioritize tasks based on their urgency and importance. This enhanced organization and prioritization led to a more structured approach to task management, reducing the risk of missed deadlines and overlooked tasks.

II. Enhanced Collaboration and Communication

Task management software facilitates enhanced collaboration and communication among team members in online businesses. It offers task assignments, real-time updates, comments, and file sharing, enabling seamless collaboration and information sharing within the software platform. Team members can communicate, provide feedback, and ask questions related to specific tasks, fostering effective teamwork and reducing the need for excessive back-and-forth communication via emails or other channels. The software is a centralized hub where team members can stay connected, align their efforts, and ensure smooth coordination, particularly in remote or distributed work environments.

III. Time and Resource Management

Task management software supports adequate time and resource management in online businesses. By providing features like task deadlines, reminders, and progress tracking, the software helps businesses to allocate their time and resources efficiently. It enables businesses to identify bottlenecks, track task durations, and optimize resource allocation. With the ability to visualize task timelines and dependencies, businesses can identify potential time conflicts and make informed decisions to

streamline their operations. Additionally, the software allows businesses to allocate resources based on task priorities and ensure that resources are utilized optimally.

IV. Increased Accountability and Transparency

Task management software promotes increased accountability and transparency within online businesses. Each task can be assigned to specific individuals or teams, creating a clear ownership structure. This enhances accountability as individuals are responsible for their assigned tasks and can be held accountable for their completion. The software also provides transparency by allowing stakeholders to view task progress, updates, and comments. It enables managers and team members to have a clear overview of the tasks at hand, facilitating better visibility into the workflow and ensuring that everyone is aligned and informed about the progress of tasks.

V. Reduction of Overhead and Administrative Burden

Task management software reduces overhead and administrative burdens in online businesses. The software automates various task-related processes, such as task assignments, progress tracking, and deadline reminders. This automation saves time and effort that would otherwise be spent on manual coordination and follow-up. The centralized nature of the software eliminates the need for multiple tools or manual record-keeping, reducing administrative complexity and streamlining operations. Moreover, the software's reporting and analytics capabilities provide valuable insights into task completion rates, team performance, and productivity metrics, allowing businesses to make data-driven decisions and optimize their operations effectively

2.2.8. Challenges and Limitations of Task Management Software in Online Businesses

I. Adoption and Learning Curve

One of the challenges of task management software adoption in online businesses is the initial adoption and learning curve. Transitioning from traditional task management methods to software-based solutions may require time and effort for

employees to familiarize themselves with the new system. This challenge can arise due to the need for training, adjusting workflows, and overcoming resistance to change.

II. Integration with Existing Systems and Tools

Integrating task management software with existing systems and tools used in online businesses can pose a challenge. Ensuring smooth integration and compatibility between the task management software and other tools, such as project management software, communication platforms, and CRM systems, may require technical expertise and customization. A lack of seamless integration can lead to data inconsistencies, duplication of efforts, and inefficiencies in workflow.

III. Data Security and Privacy Concerns

Data security and privacy concerns are significant limitations when using task management software in online businesses. Storing sensitive business data, project details, and confidential information within the software requires robust security measures to protect against data breaches, unauthorized access, and potential leaks. Online businesses must carefully evaluate the security features and protocols provided by task management software to mitigate these concerns.

IV. Potential Overreliance on Software

While task management software offers numerous benefits, there is a potential risk of overreliance on the software. Businesses may become overly dependent on the software for task organization, communication, and decision-making, which can limit critical thinking and creativity. It is essential for businesses to strike a balance between utilizing the software's capabilities and maintaining human judgment and adaptability.

2.2.9. Productivity in Online Businesses

Although productivity might mean different things to different people, it is important to knowledge workers. Productivity has been examined by many different study

communities to learn more about how individuals work and how they might increase their productivity. While productivity has no standardized definition, it is frequently described as the relationship between output and the inputs needed to produce that result (Schreyer & Pilat, 2001). Productivity plays a pivotal role in the success of online businesses. In the highly competitive digital landscape, where new ventures emerge rapidly, achieving and maintaining high productivity levels is essential for sustainable growth and profitability. Online businesses face challenges, such as rapid technological advancements, evolving consumer preferences, and increasing market saturation.

Consequently, enhancing productivity becomes imperative to stay competitive. Effective utilization of resources, streamlined processes, and optimized workflow enable online businesses to deliver products or services promptly, meet customer expectations, and remain agile in the face of changing market dynamics. Improving productivity leads to cost savings, increased revenue, improved customer satisfaction, and a stronger competitive advantage (Alam et al., 2019; Hasan, 2018; Song et al., 2020).

2.3. Empirical Review

This section of the chapter presents previous studies on task management software and online business productivity.

- **Task Management Software and Online Business Productivity**

Studies though scanty, have explored the relationship between task management software and productivity in different organizational contexts. Consistently, studies demonstrate that task management software positively impacts online business productivity. Research reveals that effective task management leads to improved organization, streamlined workflows, enhanced collaboration, and better time management, resulting in increased productivity and output. The literature highlights how task management software allows businesses to prioritize tasks, allocate resources efficiently, and monitor progress in real time, leading to enhanced overall productivity. For example, Siddiqui (2019) conducted a study on how online project management

apps and tools enhance project management functionality. The study found that project management apps enhance the functionality of project management.

Also, Nworgu and Oluwuo (2019) conducted a study examining time resource management and teachers' task performance in public senior secondary schools in Rivers State Nigeria. The research highlighted that task management was a significant predictor of teachers' task performance. A study by Navarro, Prasetyo, Young, Nadlifatin, and Redi (2021) investigated the perceived satisfaction in utilizing the Learning Management System (LMS) among engineering students during the COVID-19 Pandemic: Integrating Task Technology Fit and Extended Technology Acceptance Model. The results showed that technology, person, and task factors had a beneficial impact on task technology fit. The study also discovered that perceived utility and perceived simplicity of use had a favorable influence on behavioral intention to utilize LMS. Additionally, behavioral intention to use a learning management system (LMS) was significantly directly influenced by task technology fit, which in turn produced reported pleasure.

In a recent study, Spezie and Bragantini (2023) investigated the development of task management software (TMS). They studied a bridge between Project Management's activities (especially in a multi-project context) and "ordinary" assignments to follow. The study concluded that task management software can offer the necessary help for anyone who wants a solution to keep things under control by excellently balancing and managing the tasks and schedules of a project while focusing on the office routine.
Williams (2021) did, however, also analyze the productivity of remote workers using task management technologies. The study examined the productivity requirements and difficulties of distant knowledge workers, as well as their usage of Task Management technologies, based on existing frameworks. A semi-structured interview and a 2-week mixed-methods diary study were used to conduct the research. The study's findings showed that utilizing a digital Task Management program had no discernible advantage over using pen and paper to increase remote workers' perceived productivity, and it came to the conclusion that Task Management apps needed to be better customized. These studies collectively indicate that task management software can positively impact productivity by improving task organization, collaboration, time management, and overall workflow efficiency.

Table 2.1. Summary of Empirical Literature

Author	Study Title	Methods	Findings
Spezie and Bragantini (2023)	The Development of a Task Management Software (TMS): A bridge between Project Management's sub-activities (especially in a multi-project context) and "ordinary" assignments to follow	Systematic Literature Review	The research highlighted the positive influence of task management software in improving task organization, prioritization, and time management, leading to increased individual productivity and performance outcomes.
Siddiqui (2019)	Do the online project management apps and tools enhance the functionality for project management in SMEs in Ireland?	Quantitative approach Survey questionnaire	The hypothesis of the study was supported. The study found that project management apps enhance the functionality of project management.
Williams (2021)	"Am I Productive?": Exploring the Experience of Remote Workers with Task Management Tools	Mixed Methods Diary study and Semi-structured interviews Longitudinal data	To increase remote workers' perceived productivity, Task Management applications did not significantly differ from using pen and paper, leading researchers to conclude that Task Management programs need to be better personalized.

Table 2.1. (cont)

Nworgu and Oluwuo (2019)	Time resource management and teachers' task performance in public senior secondary schools in Rivers state	Quantitative Methods Questionnaires Correlation Analysis	The study found that task management was a significant predictor of teachers' task performance.
Navarro, Prasetyo, Young, Nadlifatin, and Redi (2021)	The Perceived Satisfaction in Utilizing Learning Management System (LMS) among Engineering Students during the COVID-19 Pandemic: Integrating Task Technology Fit and Extended Technology Acceptance Model	Quantitative Methods Structural Equation Model	The study's findings demonstrated that technology, person, and task factors had a beneficial impact on the Task Technology Fit. The study also discovered that perceived utility and perceived simplicity of use had a favorable influence on behavioral intention to utilize LMS. Additionally, behavioral intention to use a learning management system (LMS) was significantly directly influenced by task technology fit, which in turn produced reported pleasure.

2.4. Conceptual Framework

According to Mathieson et al. (2011), a conceptual framework is a visual or textual product that depicts or narratively summarises the main study issues, such as the significant concepts, variables, or factors, as well as the linkages that are thought to exist between them. It also indicates the factors in a connection that impact the disputed subject. The independent variables that caused changes were the usage patterns and adoption rate of task management software, the perceived benefits, and

the challenges and limitations. The dependent variable was the productivity of online businesses.

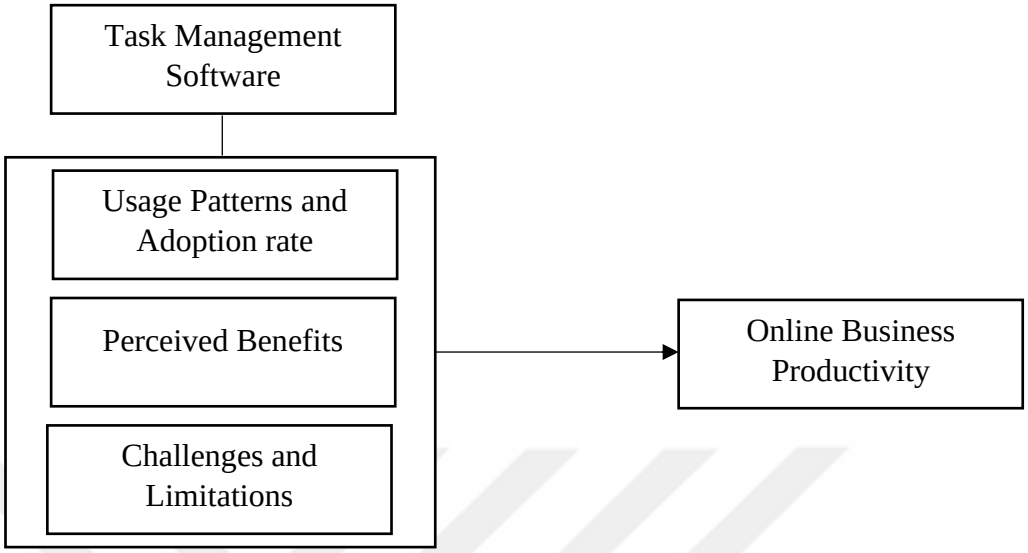

Figure 2.1. Conceptual Framework

Source: Reseacher's construct (Issaku, 2023)

2.5. Chapter Summary

This chapter was presented in four sections; theoretical review, conceptual review, empirical review, and conceptual framework. TAM and JD-R theories underpinned the study. The concepts of online businesses and task management software were presented under the conceptual review. Also, a review of the previous related relevant study was reviewed. It was found that the role of task management software in various kinds of online business in general and specifically in Turkiye has not been studied. Lastly, the conceptual framework of the study was presented.

CHAPTER III

METHODOLOGY AND APPLICATION

3.1. Introduction

The study sought to assess task management software's effect on online businesses' productivity. This chapter presents the methodology employed in the study. The elements of the methodology were research design, population, sampling techniques and participants, data collection instruments, data collection methods, and data analysis procedure.

3.2. Research Design and Approach

Research designs are the frameworks and strategies designed to give or provide answers to questions in a study (Creswell 2014). This research used the explanatory research design to explain the aspects of the study in detail. Explanatory research aims to show causal associations between constructs. Explanatory research is a social phenomenon that describes and explains the association or discrepancies between two or more concepts in a study (Saunders et al., 2016). The explanatory study was employed to explain and understand the relationship between the variables used.

Research approaches are more related to the gathering and processing strategies used to create information results (Alharahsheh & Pius, 2020). The study adopted the quantitative research approach. The quantitative research approach answers questions on relationships within variables that can be measured to explain, predict, and control phenomena (Zikmund, Babin, Carra & Graffin, 2013). The quantitative method enables the researcher to measure data using mathematical or statistical tools in the analysis. It helps generalize the research findings to the study population when the results are reliable and valid (Leedy & Ormrod, 2001). Quantitative research is a research approach used to test theories by examining the relationship between

variables. These variables, in turn, can be measured, typically on tools, so the data analysis can be done using statistical techniques (Creswell, 2014).

3.3. Population of the Study

According to Rubin and Babbie (2012), the target population is “the "theoretically specified aggregation of study elements. The target population is a definite collection to which the researcher makes a comprehensive statement on conclusions. The target population of this research includes various stakeholders within the online business ecosystem in Turkiye. Online businesses of all sizes, ranging from startups to established enterprises, are part of the target group. These businesses may operate in diverse sectors, including e-commerce, digital marketing, consulting, education, and content creation. An estimated target population for the study was 800 online businesses. The unit of observation of the target population was entrepreneurs, influencers, solopreneurs, online tutors, and content creators operating in the online business landscape.

3.4. Study Area

The study was conducted among online businesses in Turkiye. The online business landscape in Turkiye has witnessed significant growth and transformation in recent years. As one of the fastest-growing economies in the world, Turkiye has embraced the digital revolution and has become a thriving market for e-commerce and online entrepreneurship. One of the key factors driving the growth of online businesses in Turkiye is the country's large and youthful population. With a tech-savvy generation that is increasingly connected to the internet, there is a growing demand for online services and products. According to recent statistics, the internet penetration rate in Turkiye has reached over 75%, indicating a substantial online consumer base. E-commerce has emerged as a dominant force in the Turkish online business landscape. Online marketplaces and retail platforms have gained immense popularity, offering a wide range of products, from electronics and fashion to household goods and groceries. Some of the prominent e-commerce platforms in Turkiye include Trendyol, Hepsiburada, and GittiGidiyor. Another significant driver of online businesses in Turkiye is the rise of mobile usage. The widespread adoption of smartphones has

enabled consumers to access the internet and make purchases on the go. Mobile apps and mobile-optimized websites have become essential for businesses to cater to the needs of mobile users. This mobile-first approach has revolutionized the way companies operate and engage with customers.

3.5. Sampling Techniques and Participants

Anthony-Krueger and Sokpe (2006) defined a sample as a representation of a population. The strategy for selecting a fraction of a population to represent that population is known as the sampling technique (probability and non-probability). Probability sampling necessitates a finite number of people to draw a sample from a population. To put it another way, to assess the probability of the population being representative, there must be a sample frame, which is a list of all individuals who make up the population. On the other hand, when obtaining a finite number of persons who make up the accessible population is challenging, the non-probability procedure is used (Bryman & Bell, 2018).

The sampling technique employed was purposive sampling, specifically targeting online businesses, entrepreneurs, influencers, solopreneurs, online tutors, and content creators. The participants were selected based on their engagement in online business activities and their use of task management software. Efforts were made to ensure diversity in terms of business size, industry, and geographic location to capture a wide range of perspectives. Corroboratively, Krejcie, and Morgan (1970) and Sarantakos (2005) argued that sample size can be determined by either making reference from a sample size table or through calculation using statistical formulae. The Krejcie and Morgan 1970 sample size table with a 95% confidence level and a 5% margin of error was used for this study. From the Krejcie and Morgan 1970 sample size table, a population of 800 corresponds to a sample of 260. However, 250 online firms were utilized as the sample size for the study due to the response rate.

3.6. Data Collection Instruments

The data for the study was obtained from a primary source using questionnaires. According to Dum (2010), a questionnaire is an instrument containing foreordained

inquiries planned or defined by a researcher to gather information on a study's interests to accomplish the study's intended purpose. A portion of the critical measures for utilizing the questionnaire is when mathematical or numeric data are required. Both the dependent and independent study variables require mathematical information for quantitative analysis (Roopa & Rani, 2012).

Questionnaires were selected for many reasons; the questionnaire is the easiest and most acceptable method when interacting with many respondents. Another justification for using the questionnaire was that it was easy to complete. It also takes less time relative to approaches like interviews. Finally, it successfully gathers factual information on the procedures and circumstances under which respondents should know and inquire into their views and attitudes (Roopa & Rani, 2012). The questionnaire contained closed-ended questions where respondents were presented with choices to select. The intent of using this design was to present data that can be evaluated to quantify the variables of the study

According to Neelankavil (2015), questionnaires ensure higher uniformity, consistency, and objectivity in the data collected. Questionnaires also give respondents privacy and convenience while maintaining anonymity during completion. Sections A, B, C, D, and E made up the five sections of the questionnaire. Section A enquired about the respondent's demographics. Section B focused on the usage patterns and adoption rates of task management software. The section had four indicators: task management software that the businesses are using, the number of years of being in operation, the number of months/years of using task management software, and the type of task management software. Section C concentrated on the perceived benefits of task management software to online businesses. The section had five broad areas of perceived benefits with four indicators for each. The areas were: Task Organization Prioritization (TOP), Collaboration and Communication (CC), Time and Resource Management (TRM), Accountability and Transparency (AT), and Overhead and Administration Burden (OVB).

Section D concentrated on the challenges and limitations of task management software. Four limitations and challenges were assessed. They were: Adoption and Learning Curve (ALC), Integration with Existing Systems and Tools (IEST), Data

Security and Privacy Concerns (DSPC), and Potential Overreliance (POS). Section E presented the relationship between task management software and online business productivity. Sections C to E were measured on a 5-point Likert scale with 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. Sections C, D, and E were adapted from the literature after an extensive review.

3.7. Data Collection Methods

The data for the study was primary data collected through an online questionnaire. Google Forms was used to design the survey for this research. The link to the questionnaires was created and shared on social media platforms and with individual business owners whom the researcher knows and could contact directly. The participants of the study were allowed adequate time after sharing the link for their responses. The questionnaire consisted of multiple-choice and Likert-scale questions, focusing on the participants' usage of task management software, perceived benefits, challenges, and limitations, and its relationship with the productivity of online businesses. A one-month duration was allowed for the online survey. The sample for the study was not obtained after the duration. However, a very good response rate was obtained which was adequate for quantitive research and can help in generalization. According to Babbie (2005), a 50%, 60%, and 70% response rate implies adequate, good, and very good. From Table 3.1, the response rate for the study was 96.2%, hence, was appropriate for the study.

Table 3.1. Response Rate

Categories	Number of Firms	Percentage (%)
Target population	800	100
Sample Size	260	100
Total responses	250	96.2

Source: Field Survey (2023)

3.8. Common Method Bias

Data collection from respondents has been found to be seriously problematic due to common-method bias. It occurs when the same approach is applied to measure multiple constructs in a study (Schaller, Patil & Malhotra, 2015). Questionnaire items for the data collection were worded and vividly to avoid common method bias. It, therefore, enabled the elimination of the possibility of the respondents relying on a systematic response tendency, such as extreme or midpoint responses in responding to the questions (Podsakoff *et al.*, 2012).

3.9. Measurement of Variables

The measurement of variables of the study was adopted from a pretested scale from previous studies. All the indicators for the variables were carefully selected based on an extensive literature review. Table 3.2 below presents each of the variables used in the study, their measurement indicators, and sources.

Table 3.2. Measurement of Variables

Variables	Measurement Items	Sources
Perceived Benefits of Task Management Software	Task Organization Prioritization (TOP), Collaboration and Communication (CC), Time and Resource Management (TRM), Accountability and Transparency (AT) and Overhead and Administration Burden (OVB)	Bellott et al., (2003); Ågerfal et al., (2008); Brodnansky (2016).
Challenges and Limitations of Task Management Software	Adoption and Learning Curve (ALC), Integration with Existing Systems and Tools (IEST), Data Security and Privacy Concerns (DSPC) and Potential Overreliance (POS)	Riss et al. (2005); Oertig and Buergi (2006); Sekitoleko et al. (2014); Pournajaf et al. (2016)
Online Business Productivity	Cost savings, prompt delivery, structured workflow, streamlined processes, on-time delivery, customer expectations	Schmenner, (2004); Houseman, (2007); Ferreira and Du Plessis, (2009)

3.10. Validity and Reliability

A research instrument's validity and reliability demonstrate how well it captures the parameters it was designed to measure (Saunders et al., 2016). Reliability refers to a measure's consistency, whereas validity assesses how well the assessment items accurately represent the construct in a quantitative study (Haele & Twycross, 2015). The Cronbach's alpha test was used to assess the reliability and validity of the research instrument. Previous studies have found that a Cronbach alpha value closer to 1 gives higher reliability of the questionnaire items (Saunders *et al.*, 2012; Creswell, 2014; Beins & McCarty, 2017). However, the threshold many researchers accept is that an alpha value of 0.7 or more shows that the indicator is reliable. Table 2 presents the results of the research instrument's reliability. The results from Table 3.3 show that the indicators in the research instruments met the acceptability criteria.

Table 3.3. Validity and Reliability

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.966	0.97	35

3.11. Ethical Considerations

A significant area of concern in research is the confidentiality of the data provided by the study participant and the anonymity of the organization and individual participants (Saunders *et al.,* 2016). The study participants were assured that the data or information provided should be confidential and that their organization's identity shall not be known or revealed. In line with this, as promised, the questionnaire had no items that breached confidentiality and anonymity. The participants were assured that the data would not be shared with anyone and that the information provided was only for academic purposes. The findings of the data analysis were duly reported as generated.

3.12. Data Analysis Procedures

Quantitative data collected through questionnaires requires coding, data entry, and cleaning (Zikmund, 2012). The Statistical Package for Social Sciences (SPSS version 26.0) was used for data coding, entry, and cleaning. The responses from the Excel sheet obtained from the Google form survey were exported to SPSS. The information gathered from respondents was reviewed and coded. The review allowed the researcher to double-check that replies had been provided for all of the items used to elicit data. To make coding easier, the data was divided into variables. With the help of descriptive statistics like frequency, percentage, means, standard deviations, skewness, and kurtosis, the data were examined. The relationship between the dependent and independent variables was also determined using correlation analysis. The data was analyzed based on the objectives of the study.

CHAPTER IV

RESULTS AND DISCUSSIONS

4.1. Introduction

This chapter discusses the study's findings in relation to the research objectives. Specifically, the chapter discusses the demographic characteristics of the respondents. Further, the usage patterns and adoption rate of task management software, benefits, challenges, and limitations of task management software were also discussed. The relationship between task management software and online business productivity was also discussed. The study's research objectives were analyzed through descriptive and inferential statistical techniques using Statistical Package for Social Sciences (SPSS).

4.2. Demographic Characteristics of Respondents

This section presents the results of the demographic information of the study participants. The nature of the data warranted using descriptive statistics (frequencies) for the analysis. The demographic information covered four areas, including the gender of respondents, age, educational qualifications, and their role in online business.

Table 4.1. Demographic Information

Variables	Indicators	Frequency	Percentage (%)
Gender	Male	175	70.0
	Female	75	30.0
Age	18 - 24 years	105	42.0
	25-34 years	85	34.0
	35-44 years	40	16.0
	45-54 years	11	4.4
	55 years and above	9	3.6
Educational Qualification	High School or Equivalent	6	2.4
	Bachelor's Degree	104	41.6
	Master's Degree	44	17.6
	Professional Certificate	89	35.6
	PhD or other	7	2.8
Role in Online Business	Entrepreneur	5	2.0
	Influencer	5	2.0
	Solopreneur	37	14.8
	Online Business Owner	71	28.4
	Online Tutor	73	29.2
	Content Creator	59	23.6

Source: Field Survey (2023)

The results from Table 4.1 show that the majority, 175 (70%) of the respondents, were males, whilst 75 (30%) were females. This implies that the respondents surveyed for the study were male-dominant in the online business landscape. Concerning the age range, 105 (42%) were between the ages of 18 to 24 years. This was followed by 85 (34%) between the ages of 25 to 34 years, and 40, representing 16%, were between the ages of 35 to 44. The age ranges with the fewest respondents were 45 to 54 years and 55 years and above. They had 11 and 9 respondents, respectively, representing 4.4 percent and 3.6 percent.

In relation to the specific business role of the respondents, the results show that the majority of the respondents, 73 (29.2%), were identified as online tutors. This was followed by online business owners who were 71 (28.4%). Content creators and solopreneurs followed with 59 (23.6%) and 37 (14.8%), respectively. Entrepreneurs and influencers both followed with 5 (2.0%) each. The result implies that most respondents were online tutors and business owners. This further explains the majority age range of the respondents given that most of the youth are positively inclined and aggravated towards using the internet for survival in the current dispensation. Additionally, students and young graduates alike are into content creation with their online presence, aligning with this study's findings.

The analysis of the age range revealed that many of the respondents were between the ages of 18 and 34, indicating that more than half of the total respondents of the study fell within the active work range. Regarding the educational qualification of the respondents, the results revealed that 104 (42.6%) of the respondents were bachelor's degree holders, 89 (35.6%) were professional certificate holders, and 44 (17.6%) were master’s degree holders. Respondents with high school or equivalent certificates and Ph.D. or other certifications were 6 (2.4%) and 7 (2.8%), respectively. This implies that the majority of the study respondents had first-degree credentials, followed by those with professional certificates. This means that the respondents have adequate capacities and qualifications to hold the positions to operate in the online business landscape. Furthermore, the result implies that the respondents had sufficient knowledge in the field of inquiry, giving authenticity and confidence to the survey data.

4.3. Descriptive Statistics

This section presents the descriptive statistics of task management software usage patterns and adoption rate, benefits, challenges, and limitations. The nature of the former warranted using frequencies, where each item indicator is analyzed and discussed. The later analyses employed descriptives such as mean and standard deviation. The results are presented in Tables 7 to 12.

4.3.1. Usage Patterns and Adoption Rate of Task Management Software

The results from Table 4.2 present the task management software used by the respondents in their online business operations.

Table 4.2. Usage Patterns and Adoption Rate of Task Management Software

Variables	Indicators	Frequency	Percentage (%)
Task Management Software	Slack	11	4.4
	Basecamp	3	1.2
	Todoist	19	7.6
	Asana	67	26.8
	Trello	75	30.0
	Notion	26	10.4
	Evernote	31	12.4
	Other	18	7.2
Number of years in online business	Less than three years ago	148	59.2
	Four years to seven years	80	32
	Eight years to ten years ago	17	6.8
	More than ten years	5	2
Number of years using Task Management Software	Less than six months	54	21.6
	Six months to one year	82	32.8
	One year to three years	37	14.8
	More than three years	77	30.8
Types of Task Management Software	Simple To-Do List Apps	83	33.2
	Kanban Boards	64	25.6
	Project Management Software	25	10.0
	Team Collaboration Platforms	78	31.2

Source: Field Survey (2023)

The result reveals that 75 (30%) of the respondents used Trello, followed by 67 (26.8%) respondents who used Asana. The software that followed with high usage was

Evernote 31 (12.4%). Notion had 26 (10.4%), while Todoist had 19 (7.6%). Slack and Basecamp were the least used among the respondents, with 11 (4.4%) and 3 (1.2%), respectively. 18 (7.2%) respondents indicated using software other than the one listed. The findings imply that most online businesses use Trello and Asana as task management software for managing their online business operations. The popularity of the usage of this software may stem from the enormous benefits derived by the users coupled with ease of use. For instance, Trello is a Kanban-based task management tool that allows users to create boards, lists, and cards to organize tasks visually, enabling easy tracking and task management. Asana also offers features such as task assignment, deadline management, collaboration, and progress tracking, enhancing task tracking and management. It is also suitable for managing both personal and team tasks.

Concerning the number of years of being in online business, the results from Table 8 show that the majority, 148 (59.2%), of the businesses have been in operation for less than 3 years. The next followed was businesses that have been in operation for 4 to 7 years and were 80 (32%). 17 (6.8%) and 5 (2%) of the businesses in the survey had been in operation for 8 to 10 years and more than 10 years, respectively. The implication is that more than half of the online businesses have been in operation for a few years, indicating that they were budding businesses. However, more than a quarter of the businesses had been in operation for 4 to 7 years, showing that an appreciable number of the surveyed businesses had been in the online landscape for some time. Also, the number of online businesses that have emerged can be explained by the significant growth and transformation in recent years in the online business landscape in Turkiye. As one of the economies in the world that is expanding the quickest, Turkiye has embraced the digital revolution and has become a thriving market for e-commerce and online entrepreneurship.

The number of years the online business adopted and used task management software was also enquired about and analyzed. The results presented in Table 9 revealed that 82 (32.8%) businesses had used task management software for 6 months to 1 year since operation. This was followed by 77 (30.8%) businesses using the software for more than 3 years since the operation. Online businesses that have used task management software for less than 6 months were 54 (21.6%), and from 1 year to 3

years were 37 (14.8%). The result implies that many businesses adopted task management software not so long ago. This corroborates the result that most of the businesses were budding, having been in business for less than 3 years. With 77 of the firms having adopted and used task management software for more than 3 years, it aligns with the results from the number of years of operation, where 80 of the online businesses indicated that they have been in operation for 4 to 7 years.

Also, the types of task management software that were adopted by online businesses were investigated. From Table 10, a more significant number of 83 (33.2%) of the online businesses had adopted the simple to-do-list apps. The next type with the highest was team collaboration platforms, with 78 (31.2%). 64 (25.6%) of the online businesses used Kaban keyboards, whilst 25 (10%) used project management software. The results indicate that online businesses used the simple to-do-list apps more, followed by team collaboration platforms by a small margin. This can be argued to stem from the fact that simple to-do list apps focus on basic task management and allow users to create and organize simple to-do lists, set deadlines, and track task completion. For team collaboration platforms, it combines task management with communication and collaboration features, facilitating team coordination, file sharing, and real-time communication.

On the other hand, Kanban-based task management software uses boards with columns representing different stages of tasks (e.g., to-do, in progress, completed). In contrast, project management software provides comprehensive features for managing complex projects, including task assignment, resource allocation, scheduling, budgeting, and reporting. With 64 and 25 online businesses adopting Kaban boards and project management software, respectively, it can be argued that the online business included in this study did not undertake complex tasks or projects.

The Technology Acceptance Model (TAM) supports the findings of this study. TAM posits that people and businesses accept the use of technology based on their perceived ease of use and perceived usefulness (Davies, 1986). The user-friendly interface and comprehensive features that smoothen online business activities by adopting task management software cannot be undermined. The adoption and usage rate of the online business indicate that the software satisfies these two basic assumptions of

TAM. Also, as argued by the Job-Demand Resources Model (J-DR Model), tasks can impose various demands on individuals, such as workload, time pressure, and complexity. Hence, a resource such as task management software that can streamline tasks and achieve project objectives can help deal with the demands accompanying online business operations. Arguably, online business activities are the most time-bound tasks since the online landscape provides a broader avenue to deal with people worldwide. With different time schedules for every country, a seamless flow of task organization is imperative. This makes adopting and using task management software in managing online business activities an essential resource tool for productivity.

4.3.2. Benefits of Task Management Software

Table 4.3 presents the benefits of task management software (TMS). Five broad benefits of task management software: task organization and prioritization (TOP), collaboration and communication (CC), time and resource management (TRM), accountability and transparency (AT), and overhead and administrative burden (OVB).

Table 4.3. Benefits of Task Management Software

Indicators	Min	Max	Mean	Std. Deviation
TOP1	1	5	4.272	1.02087
TOP2	1	5	4.184	0.98897
TOP3	1	5	4.084	1.00847
TOP4	1	5	4.156	0.98363
CC1	1	5	4.076	1.01308
CC2	1	5	4.124	0.98003
CC3	1	5	3.704	1.27392
CC4	1	5	3.864	1.22782
TRM1	1	5	4.104	1.00859
TRM2	1	5	3.644	1.28212
TRM3	1	5	3.792	1.18421

Table 4.3. (cont.)

AT1	1	5	3.980	1.06966
AT2	1	5	4.004	1.00799
AT3	1	5	4.140	0.96547
OVB1	1	5	4.096	1.03686
OVB2	1	5	4.064	1.03934
OVB3	1	5	4.112	0.95452

Source: Field Survey (2023)

Note: Task Organization Prioritization (TOP), Collaboration and Communication (CC), Time and Resource Management (TRM), Accountability and Transparency (AT) and Overhead and Administration Burden (OVB)

In relation to TOP, all the businesses 250 (100%) agreed that task management software improves the organization of their tasks (TOP1). Because this outcome had a mean score of 4.272 between 3 and 5, it was classified as "high." The data is clustered around the mean, as shown by the standard deviation statistic of 1.02087, which confirms the data's high value. The businesses also agreed that task management software improves the prioritization of important such that appropriate attention is given to them (TOP2). The indicator had a mean of 4.184 and a standard deviation statistic of 0.988, indicating that the data is clustered around the mean. The results also reveal that the businesses have a structured approach to task management hence reducing the risk of missed deadlines and overlooked tasks (TOP 4) (mean = 4.156 and standard deviation = 0.98363) and also manage workload effectively (TOP 3) (mean = 4.084 and standard deviation = 1.0084).

Regarding communication and collaboration, all the businesses 250 (100%) agreed that with task management software, they can collaborate on the software (CC2) seamlessly. This is because the item rated high with and mean of 4.124 and standard deviation = 0.98003, depicting that the data is clustered around the mean. The businesses also agreed that task management software enables them to seamlessly share real-time information within the software platform (CC1). This indicator ranged from 3 to 5, with a mean of 4.076. The 1.01308 standard deviation indicates that the data are clustered around the mean. In addition, the firms indicated that task

management software provides them with a centralized hub where team members can stay connected, align their efforts, and ensure smooth coordination (CC4) (mean = 3.864 and standard deviation = 1.22782). It was also found that task management fosters effective teamwork and reduces the need for excessive back-and-forth communication via emails or other channels (CC3) (mean = 3.704 and standard deviation = 1.27392).

Another benefit of task management software is time and resource management. The businesses 250 (100%) indicated that task management software helps them identify bottlenecks, track task durations, and optimize resource allocation (TRM1). This was rated high due to the mean score of 4.104 between 3 and 5 and a standard deviation statistic of 1.00859, depicting that the data is clustered around the mean. The businesses also agreed that the allocation of resources based on task priorities and ensuring optimal resource utilization (TRM3) is another benefit derived from the task management software. The mean score of 3.792 and standard deviation statistics of 1.18421 were obtained. Among the benefits of employing task management software were that the businesses can also visualize task timelines and dependencies (TRM2) (mean = 3.644 and standard deviation = 1.28212).

On the benefits of accountability and transparency, the businesses agreed that with task management software, they are able to have a clear overview of the tasks at hand, facilitating better visibility into the workflow and ensuring that everyone is aligned and informed about the progress of tasks (AT3). The item was rated high because it had a mean of 4.140 and a standard deviation of 0.96547, indicating that the data was gathered close to the mean. The businesses further indicated that task management software enhances their ability to view task progress, updates, and comments, thereby providing transparency (AT3). The data were acquired with a mean score of 4.004 and standard deviation statistics of 1.00799, demonstrating how the data are grouped around the mean value. That question has the lowest mean score of 3.980 and a standard deviation of 1.06966. This indicates that task management software has enabled businesses to assign each task to specific individuals or teams hence creating a clear ownership structure.

Lastly, for overhead and administrative burden, all the businesses indicated that task management software enables them to make data-driven decisions and optimize their firms' operations effectively (OVB3). With a mean score of 4.112, which is between 3 and 5, and a standard deviation statistic of 0.95452, which indicates that the data is clustered around the mean value, this received a high rating. Also, the businesses agreed that task management software could automate various task-related processes, such as task assignment, progress tracking, and deadline reminders (OVB1). A mean score of 4.096 and a standard deviation statistic of 1.03686 was obtained. It was also found in agreement that task management software has enabled online businesses to eliminate the need for multiple tools or manual record-keeping, reducing administrative complexity and streamlining operations. This had a mean of 4.064 between 3 and 5 and a standard deviation statistic of 1.03934. The findings indicate that online businesses derive optimum benefits from task management software.

4.3.3. Challenges and Limitations of Task Management Software

The challenges and limitations of task management software were also investigated, and the data retrieved was analyzed. The challenges and limitations that informed the inquiry were: adoption and learning curve (ALC), integration with existing systems and tools (IEST), data security and privacy concerns (DSPC), and potential over-reliance on software (POS). The results are presented in Table 4.4 below.

Table 4.4. Challenges and Limitations of Task Management Software

Indicators	Min	Max	Mean	Std. Deviation
ALC1	1	5	4.272	0.85847
ALC2	1	5	4.128	0.98565
IEST1	1	5	4.20	0.90069
IEST2	1	5	3.984	1.14411
DSPC1	1	5	4.112	0.98353
DSPC2	1	5	4.080	1.08365
POS1	1	5	4.352	0.90741
POS2	1	5	4.272	1.02087

Source: Field Survey (2023)

Note: Adoption and Learning Curve (ALC), Integration with Existing Systems and Tools (IEST), Data Security and Privacy Concerns (DSPC) and Potential Overreliance (POS)

For the adoption and learning curve, all the online businesses 250 (100%) agreed that transitioning from traditional task management methods to software-based solutions requires employee time and effort with the new system. This was rated high with a mean of 4.272 between 3 and 5 and a standard deviation statistics of 0.85847, indicating that the data is clustered around the mean value. The businesses also agreed that the challenges of using task management software were resistance to change and lack of training or familiarity with the software, making it difficult for employees to adapt. This obtained a mean value of 4.128 and a standard deviation statistic of 0.98565.

In relation to integration with existing systems and tools, all the firms 250(100%) agreed that it requires technical expertise and customization to ensure smooth integration and compatibility between task management software and other tools (IEST1). The indicator was rated high with a mean = 4.20 between 3 and 5 and a standard deviation of 0.90069, depicting that the data is closely gathered around the mean. The firms also agreed that a lack of seamless integration could lead to data inconsistencies, duplication of efforts, and inefficiencies in workflow (IEST2). The indicated was rated with a mean value of 3.984 and a standard deviation statistic of 1.14411.

Regarding data security and privacy concerns, the businesses agreed that the challenge of adopting task management software requires robust security measures to protect against data breaches, unauthorized access, and potential leaks (DSPC1). This rated high with a mean = 4.112 and a standard deviation statistic of 0.98353, showing that the data was gathered around the mean. The respondents also indicated that another challenge is that sensitive business data and project details can be leaked due to a lack of adequate security measures (DSPC2). This was with a mean of 4.08 and a standard deviation statistic of 1.08365.

Finally, on the limitations and challenges, the study found that all the businesses agreed they are overly dependent on task management software for task organization.

This was rated high with a mean value of 4.352 and a standard deviation statistic of 0.90741, depicting that the data is clustered around the mean. The businesses also agreed that they find it difficult to strike a balance between utilizing the task management software's capabilities and maintaining human judgment and adaptability. A mean value of 4.272 and a standard deviation statistic of 1.02087 were obtained, indicating the data's closeness around the mean.

4.4. Correlation Analysis

Objective four of the study sought to assess the relationship between task management software and online business productivity. The hypothesis was stated that there is a significant relationship between task management software and online business productivity. The results of the analyses are presented in Table 4.5 below. The correlation between task management software and online business productivity was examined.

Table 4.5. Correlations

	TOP	**CC**	**TRM**	**AT**	**OVB**	**OBP**
TOP	1	.746**	.580**	.694**	.677**	.855**
CC	.746**	1	.773**	.767**	.726**	.838**
TRM	.580**	.773**	1	.712**	.693**	.796**
AT	.694**	.767**	.712**	1	.836**	.921**
OVB	.677**	.726**	.693**	.836**	1	.814**
OBP	.855**	.838**	.796**	.921**	.814**	1

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

Source: Field Survey (2023)

Note: Task Organization Prioritization (TOP), Collaboration and Communication (CC), Time and Resource Management (TRM), Accountability and Transparency (AT) and Overhead and Administration Burden (OVB)

Perceived benefits of task management software such as Task Organization Prioritization (TOP), Collaboration and Communication (CC), Time and Resource Management (TRM), Accountability and Transparency (AT), and Overhead and Administration Burden (OVB) were analyzed with online business productivity measures to determine the strength and direction of the relationship. The results from Pearson product correlation of task organization prioritization and online business productivity were found to be highly positive and significant ($r = 0.855$ and $p < 0.01$). Hence, the hypothesis was accepted. This implies that an increase in the use of task management software for task organization prioritization leads to high online business productivity.

Similarly, the relationship between collaboration and communication and online business productivity was found to be highly positive and significant ($r = 0.838$ and $p < 0.01$). This implies that an increase in collaboration and communication through task management software also significantly enhances the productivity of online businesses. The time and resource management function of task management software was also found to correlate highly with productivity in online business. However, the correlation between accountability and transparency and online business productivity was found to be very high and significant ($r = 0.921$ and $p < 0.01$). Task management software's overhead and administrative burden function positively and significantly correlate highly with online business productivity ($r = 0.814$ and $p < 0.01$). The findings from the study imply that an increase in task and resource management, accountability, and transparency, as well as overhead and administrative burden functions of task management software, significantly increases the productivity of online businesses.

The study findings are supported by the Job Demands-Resources (JD-R) model. Online business activities impose specific demands on owners and employees, such as workload, time pressure, and complexity. The JD-R model offers a theoretical lens to examine the relationship between task characteristics, resources, well-being, and performance. A resource such as task management software serves as a conduit through which online business tasks and activities can be streamlined. With the complex demands of online business functions, task management software serves as a resource by which online businesses enhance their business performance (i.e.,

productivity). Also, the Technology Acceptance Model (TAM) supports the findings of this study. TAM posits that online businesses would adopt and use task management software due to the perceived usefulness and ease of use of the software. The adoption rate of task management software and its enormous role in enhancing online productivity suggests that the software meets the two basic assumptions of TAM. Amidst the limitations, online businesses can integrate and use task management effectively, enhancing business performance.

Furthermore, the study's conclusions are consistent with those of earlier research. Studies such as Siddiqui (2019) on how online project management apps and tools enhance project management functionality. The study's findings showed that project management apps enhance the functionality of project management. Also, Nworgu and Oluwuo (2019) conducted a study examining time resource management and teachers' task performance in public senior secondary schools in Rivers State, Nigeria. The research highlighted that task management was a significant predictor of teachers' task performance. Another study by Navarro, Prasetyo, Young, Nadlifatin, and Redi (2021) investigated the perceived satisfaction in utilizing the Learning Management System (LMS) among engineering students during the COVID-19 Pandemic: Integrating Task Technology Fit and Extended Technology Acceptance Model. The results showed that technology, person, and task factors had a beneficial impact on task technology fit. The study also discovered that perceived usefulness and perceived simplicity of use had a favorable influence on behavioral intention to utilize LMS. Additionally, behavioral intention to use a learning management system (LMS) was significantly directly influenced by task technology fit, which in turn produced reported pleasure.

Moreover, in a recent study, Spezie and Bragantini (2023) also found that task management software can provide essential assistance for anyone looking for a way to effectively balance and manage the activities and deadlines of a project. These studies collectively indicate that task management software can positively impact productivity by improving task organization, collaboration, time management, and overall workflow efficiency.

In contrast to the findings of the study, Williams (2021) investigated how task management technologies affected the productivity of distant workers. The study examined the productivity requirements and difficulties of distant knowledge workers, as well as their usage of Task Management technologies, based on existing frameworks. The study concluded that more customization of Task Management software was required because there was no discernible difference between using a digital Task Management application and utilizing pen and paper to increase remote workers' perceived productivity. Task management software can have an insignificant impact on business processes and performance when there are issues such as inadequate implementation, lack of alignment with business goals, resistance to technology adoption, limited integration with existing systems, and ineffective workflow.

Research has found that task management software helps businesses organize tasks, deadlines, and responsibilities more efficiently, leading to improved collaboration among team members. This, in turn, enhances overall productivity. A study conducted by Cuslidge et al. (2019) examined the impact of task management software on team collaboration in a virtual environment. The results showed that teams using such software had a higher level of coordination, better task tracking, and improved communication, leading to enhanced productivity. Also, task management software enables businesses to prioritize tasks, set deadlines, and track progress, facilitating better time management. A study by Standeven et al. (2020) investigated the effects of task management software on time management in remote work settings. The research found that employees using the software reported a significant reduction in time spent on non-productive activities and an increase in focused work hours, resulting in improved productivity.

In addition, task management software can streamline workflows and optimize task allocation. This leads to better task sequencing and reduces duplication of efforts. A study by Hartman et al. (2018) assessed the impact of task management software on workflow efficiency in e-commerce businesses. The findings indicated that businesses using the software experienced reduced task completion times and improved resource allocation, contributing to increased productivity.

Furthermore, task management software provides real-time visibility into task progress and performance, allowing managers to identify bottlenecks and address issues promptly. A research study by Cheng et al. (2017) investigated the impact of real-time monitoring on productivity in online businesses. The study found that businesses using task management software with real-time reporting features achieved better task completion rates and shorter project cycles, resulting in higher productivity levels.

CHAPTER V

CONCLUSIONS

5.1. Introduction

This study explores task management software's role in enhancing online business productivity. This chapter of the study summarises the findings and conclusions and offers recommendations and suggestions for future research.

5.2. Summary of Findings

Four main objectives guided the study. The findings from each of the objectives are as follows:

Objective one of the study sought to examine online businesses' usage patterns and task management software adoption rates. The study found that the majority of online businesses used Trello task management software. The software that was least used among online businesses was Slack. Also, simple-to-do list apps were the widely used task management software type. The study also found that most online businesses have operated for less than 3 years and have used task management software for more than 6 months. For objective two, the study sought to identify the perceived benefits of task management software in enhancing productivity and efficiency in online businesses. The study found that task management software offers benefits such as task organization prioritization, collaboration and communication, time and resource management, accountability and transparency, and overhead and administration burden. In relation to objective three, the study sought to explore the limitations and challenges associated with the implementation and use of task management software by online businesses. The study found that the limitations of task management software were adoption and learning curve, integration with existing systems and tools, data security and privacy concerns, and potential overreliance.

The fourth objective sought to assess the relationship between task management software and the productivity of online businesses. The study found that task management software positively and significantly correlates with online business productivity.

5.3. Conclusions

According to the study's findings, the following conclusions were drawn:

The study concludes that most online businesses owned and operated by people in Turkiye used Trello compared to other task management software, while few used Slack task management software. Also, most of the online businesses were newly founded and had used task management software not for so long.

From the findings, the study concludes that task management software's benefits are task organization prioritization, collaboration and communication, time and resource management, accountability and transparency, and overhead and administration burden.

Also, the study established that task management software's limitations and challenges are adoption and learning curve, integration with existing systems and tools, data security and privacy concerns, and potential overreliance.

The study also concludes that task management software enhances online business productivity in areas such as structured workflow, cost savings, prompt delivery of products and services, and streamlining processes.

5.4. Recommendations and Suggestions for Future Research

The study recommends that online businesses adopt task management software to streamline operations effectively and improve productivity. Online businesses must ensure that their staff members have the abilities and information needed to effectively implement task management software in their operational activities. The study suggests that future researchers delve into case study research to examine the extent to

which task management software enhances the performance of online businesses. Future studies can also concentrate on one area, such as online tutors or content creators so that the findings can be easily generalizable.

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APPENDIXES

APPENDIX A

ENGLISH QUESTIONNAIRE

MAXIMIZING PRODUCTIVITY IN ONLINE BUSINESSES THROUGH TASK MANAGEMENT SOFTWARE: THE CASE OF ONLINE ENTREPRENEURS IN TURKIYE

Dear Sir/Madam,

This questionnaire has been designed to solicit information on Maximizing Productivity in Online Business: The Role of Task Management Software. Your response will help the researcher to accomplish his research objectives. The information provided will be used for academic purposes only. This questionnaire will take about 15 minutes of your time. Your opinions are important to the study, and they will strictly remain confidential.

Thank you for your participation.

SECTION A: DEMOGRAPHIC CHARACTERISTICS OF RESPONDENT

1. Gender:

a. Male [ ] b. Female [ ]

2. Age:

a. 18-24 years [ ] b. 25-34 years [ ] c. 35-44 years [ ]

d. 45-54 years [ ] e. 55 years and above [ ]

3. Educational Background:

a. High School or equivalent [ ] b. Bachelor's Degree [ ]

c. Master's Degree [ ] d. Professional Certificate [ ] e. Ph.D. or higher [ ]

4. Current Role in the Online Business:

a. Entrepreneur [ ] b. Online business owner [ ] c. Solopreneur [ ]

d. Influencer [ ] e. Online tutor [ ] f. Content creator [ ]

g. Other (please specify) _____

SECTION B: USAGE PATTERNS AND ADOPTION RATES OF TASK MANAGEMENT SOFTWARE AMONG ONLINE BUSINESSES.

1. Which task management software are you using in your online business?
   Please specify _____
2. When did you start your online business?

a. Less than 3 years ago [ ]

b. 4 years to 7 years ago [ ]

c. 8 years to 10 years ago [ ]

d. More than 10 years [ ]

3. How long have you been using task management software in your online business?
   a. Less than 6 months [ ]
   b. 6 months to 1 year [ ]
   c. 1 year to 3 years [ ]
   d. More than 3 years [ ]
4. What type of task management software have you adopted for your online business?

a. Simple To-Do List Apps [ ]

b. Kanban Boards [ ]

c. Project Management Software [ ]

d. Team Collaboration Platforms [ ]

e. Other, please specify _____

SECTION C: PERCEIVED BENEFITS OF TASK MANAGEMENT SOFTWARE IN ENHANCING PRODUCTIVITY AND EFFICIENCY IN ONLINE BUSINESSES.

Please indicate the extent of your **agreement** with the following perceived benefits of task management software on a 5-point scale. Where 1 represents Strongly Disagree and 5 represents Strongly Agree

	Task Organization and Prioritization **Task management software has enabled me to ……**	**1**	**2**	**3**	**4**	**5**
TOP1	improve the organization of my task					
TOP2	improve the prioritization of tasks such that important tasks are given appropriate attention					
TOP3	effectively manage my workload					
TOP4	have a more structured approach to task management, reducing the risk of missed deadlines and overlooked tasks					
	Collaboration and Communication **Task management software has enabled me to ……**					
CC1	seamlessly share real-time information within the software platform					
CC2	seamlessly collaborate on the software platform					
CC3	foster effective teamwork and reduce the need for excessive back-and-forth communication via emails or other channels.					
CC4	provide a centralized hub where team members can stay connected, align their efforts, and ensure smooth coordination					

	Time and Resource Management **Task management software has enabled me to ……**					
TRM1	identify bottlenecks, track task durations, and optimize resource allocation					
TRM2	visualize task timelines and dependencies					
TRM3	allocate resources based on task priorities and ensure that resources are utilized optimally					
	Accountability and Transparency **Task management software has enabled me to ……**					
AT1	assign each task to specific individuals or teams hence creating a clear ownership structure					
AT2	view task progress, updates, and comments, thereby providing transparency					
AT3	have a clear overview of the tasks at hand, facilitating better visibility into the workflow and ensuring that everyone is aligned and informed about the progress of tasks.					
	Overhead and Administrative Burden **Task management software has enabled me to ……**					
OVB1	automate various task-related processes, such as task assignment, progress tracking, and deadline reminders					
OVB2	eliminates the need for multiple tools or manual record-keeping, reducing administrative complexity and streamlining operations					
OVB3	make data-driven decisions and optimize my firm's operations effectively					

SECTION D: LIMITATIONS AND CHALLENGES ASSOCIATED WITH THE IMPLEMENTATION AND USE OF TASK MANAGEMENT SOFTWARE AMONG ONLINE BUSINESSES.

Please indicate the extent of your **agreement** to which you faced the following limitations and challenges with task management software. Where 1 represents Strongly Disagree and 5 represents Strongly Agree

	Adoption and Learning Curve	1	2	3	4	5
ALC1	Transitioning from traditional task management methods to software-based solutions requires employee time and effort with the new system					
ALC2	Resistance to change and lack of training or familiarity					
	Integration with Existing Systems and Tools					
IEST1	It requires technical expertise and customization to ensure smooth integration and compatibility between task management software and other tools					
IEST2	A lack of seamless integration can lead to data inconsistencies, duplication of efforts, and inefficiencies in workflow.					
	Data Security and Privacy Concerns					
DSPC1	The software requires robust security measures to protect against data breaches, unauthorized access, and potential leaks.					
DSPC2	Sensitive business data and project details can be leaked due to a lack of adequate security measures					
	Potential Overreliance on Software					
POS1	I am overly dependent on task management software for task organization					
POS2	I cannot strike a balance between utilizing the software's capabilities and maintaining human judgment and adaptability.					

SECTION E: ONLINE BUSINESS PRODUCTIVITY

Please indicate the extent of your **agreement** to the following statements. Where 1 represents Strongly Disagree and 5 represents Strongly Agree

	Online Business Productivity	1	2	3	4	5
OBP1	The adoption of task management software has enabled me to structure workflows in my online business					
OBP2	Task organization and prioritization has enabled me to complete task and project on time					
OBP3	Task management software has enabled me to streamline processes within my business					
OBP4	I can meet customer expectations with my enhanced time and resource management through task management software					
OBP5	Task management software has enhanced the cost savings of my business					
OBP6	With task management software, I can satisfy my customers through the prompt delivery of products and service					

APPENDIX B

TURKISH QUESTIONNAIRE

GÖREV YÖNETİMİ YAZILIMLARI ARACILIĞI İLE ÇEVRİMİÇİ İŞLETMELERDE ÜRETKENLİĞİN MAKSİMİZE EDİLMESİ: TÜRKİYE'DEKİ ÇEVRİMİÇİ GİRİŞİMCİLER ÖRNEĞİ

Değerli Katılımcı,

Bu anket Çevrimiçi İşlerde Üretkenliği Maksimize etmek (maksimum düzeye çıkarmak) : Görev Yönetimimi yazılımının rolü hakkında bilgi toplamak için tasarlanmıştır. Yanıtınız, araştırmacının araştırma hedeflerini gerçekleştirmesine yardımcı olacaktır. Sağlanan bilgiler sadece akademik amaçlar için kullanılacaktır. Bu anket yaklaşık 15 dakikanızı alacaktır. Görüşleriniz çalışma için önemlidir ve kesinlikle gizli kalacaktır.

Katıldığınız için teşekkürler.

BÖLÜM A: CEVAPLAYICININ DEMOGRAFİK ÖZELLİKLERİ

1. Cinsiyet:

A. Erkek [ ] b. Kadın [ ]

2. Yaş:

A. 18-24 yaş [ ] b. 25-34 yaş [ ] c. 35-44 yaş [ ]

D. 45-54 yaş [ ] e. 55 yaş ve üstü [ ]

3. Eğitim Düzeyi:

A. Lise veya dengi [ ] b. Lisans [ ]

C. Yüksek Lisans Derecesi [ ] d. Profesyonel Sertifika [ ] e. Doktora veya daha yüksek [ ]

4. Çevrimiçi İşletmedeki Mevcut Rol:

A. Girişimci [ ] b. Çevrimiçi işletme sahibi [ ] c. Soloprenör [ ]

D. Fenomen [ ] e. Çevrimiçi öğretmen [ ] f. İçerik Üreticisi [ ]

G. Diğer (Lütfen Belirtin) _____

BÖLÜM B: ÇEVRİMİÇİ İŞLETMELER ARASINDA GÖREV YÖNETİMİ YAZILIMLARININ KULLANIM ŞEKİLLERİ VE BENİMLENME ORANLARI.

1.Çevrimiçi işinizde hangi görev yönetimi yazılımını kullanıyorsunuz?
Lütfen belirtin _____
2. Çevrimiçi işinize ne zaman başladınız?
a.3 yıldan daha az bir süre önce [ ]
b.4 yıl ila 7 yıl önce [ ]
c.8 ila 10 yıl önce [ ]
d.10 yıldan fazla [ ]
3.Çevrimiçi işinizde görev yönetimi yazılımını ne kadar süredir kullanıyorsunuz?
A. 6 aydan az [ ]
B. 6 aydan 1 yıla [ ]
C. 1 yıldan 3 yıla kadar [ ]
D. 3 yıldan fazla [ ]
4.Çevrimiçi işletmeniz için ne tür bir görev yönetimi yazılımı benimsediniz?
a.Basit Yapılacaklar Listesi Uygulamaları [ ]
b.Kanban Panoları [ ]
c.Proje Yönetim Yazılımı [ ]
d.Ekip İşbirliği Platformları [ ]
e.Diğer, lütfen belirtin _____

BÖLÜM C: ÇEVRİMİÇİ İŞLETMELERDE VERİMLİLİK VE VERİMLİLİĞİ ARTIRMADA GÖREV YÖNETİM YAZILIMININ ALGILANAN FAYDALARI.

Lütfen görev yönetimi yazılımının aşağıdaki algılanan faydalarına ne ölçüde katıldığınızı 5 puanlık bir ölçekte belirtiniz. Burada 1 Kesinlikle Katılmıyorum'u ve 5 Kesinlikle Katılıyorum'u temsil etmektedir.

	Görev Organizasyonu ve Önceliklendirme **Görev yönetimi yazılımı, ……**	**1**	**2**	**3**	**4**	**5**
TOP1	görevimin organizasyonunu geliştirir					
TOP2	önemli görevlere uygun dikkatin verilmesini sağlayacak şekilde görevlerin önceliklendirilmesini geliştirir					
TOP3	iş yükümü etkili bir şekilde yönetmeme yardımcı oluyor					
TOP4	görev yönetimine daha yapılandırılmış bir yaklaşıma sahip olur, kaçırılan teslim tarihleri ve gözden kaçan görevler riskini azaltır					
	İşbirliği ve İletişim **Görev yönetimi yazılımı, ……**					
CC1	gerçek zamanlı bilgileri yazılım platformu içinde sorunsuz bir şekilde paylaşmasını sağlar					
CC2	yazılım platformunda sorunsuz bir şekilde işbirliği yapılmasını sağlar					
CC3	etkili ekip çalışmasını teşvik eder ve e-postalar veya diğer kanallar aracılığıyla iletişimde bekleme ve gecikmeleri azaltır.					
CC4	ekip üyelerinin bağlantıda kalabilecekleri, çabalarını birleştirebilecekleri ve sorunsuz koordinasyon sağlayabilecekleri merkezi bir merkez sağlar.					
	Zaman ve Kaynak Yönetimi **Görev yönetimi yazılımı, ……**					
TRM1	darboğazları belirler, görev sürelerini takip eder ve kaynak tahsisini optimize eder					
TRM2	Görev zaman çizelgelerini ve bağlantılarını gösterir.					
TRM3	kaynakları görev önceliklerine göre tahsis eder ve kaynakların optimum şekilde kullanılmasını sağlar					

	Hesap Verebilirlik ve Şeffaflık **Görev yönetimi yazılımı, ……**					
AT1	Her bir görevi belirli kişilere veya ekiplere atamaya yardımcı olur, böylece net bir sahiplik yapısı oluşturur.					
AT2	Görev ilerlemesini, güncellemeleri ve yorumları görüntülemeye yardımcı olur, böylece şeffaflık sağlar					
AT3	Eldeki görevlere ilişkin net bir genel bakışa sahip olunmasına yardımcı olur, iş akışının daha iyi görülebilmesini kolaylaştırır ve herkesin görevlerin ilerleyişi hakkında aynı hizada olmasını ve bilgi sahibi olmasını sağlar.					
	Maliyet ve İdari Yük **Görev yönetimi yazılımı, ……**					
OVB1	görev atama, gelişmeler takibi ve son tarih hatırlatıcıları gibi görevle ilgili çeşitli süreçlerin otomatikleştirilmesine yardımcı olur					
OVB2	birden fazla araca veya manuel kayıt tutmaya olan ihtiyacı ortadan kaldırarak idari karmaşıklığı azaltır ve işlemleri kolaylaştırır					
OVB3	veriye dayalı kararlar alıyor ve şirketlerimin operasyonlarını etkili bir şekilde optimize ediyor					

BÖLÜM D: ÇEVRİMİÇİ İŞLETMELER ARASINDA GÖREV YÖNETİM YAZILIMININ UYGULANMASI VE KULLANILMASIYLA İLİŞKİLİ KISITLAMALAR VE ZORLUKLAR.

Lütfen görev yönetimi yazılımıyla ilgili olarak aşağıdaki kısıtlamalar ve zorluklarla ne ölçüde karşılaştığınızı belirtin. Burada 1 Kesinlikle Katılmıyorum'u ve 5 Kesinlikle Katılıyorum'u temsil etmektedir.

	Benimseme ve Öğrenme Eğrisi	1	2	3	4	5
ALC1	Geleneksel görev yönetimi yöntemlerinden yazılım tabanlı çözümlere geçiş, yeni sistemle çalışanların zamanını ve çabasını gerektirir					
ALC2	Değişime direnç ve eğitim veya aşinalık eksikliği					
	Mevcut Sistemler ve Araçlarla Entegrasyon					
IEST1	Görev yönetimi yazılımı ve diğer araçlar arasında sorunsuz entegrasyon ve uyumluluk sağlamak için teknik uzmanlık ve özelleştirme gerektirir.					
IEST2	Kusursuz entegrasyon eksikliği, veri tutarsızlıklarına, çabaların tekrarlanmasına ve iş akışında verimsizliklere yol açabilir.					
	Veri Güvenliği ve Gizlilik Endişeleri					
DSPC1	Yazılım, veri ihlallerine, yetkisiz erişime ve potansiyel sızıntılara karşı koruma sağlamak için güçlü güvenlik önlemleri gerektirir.					
DSPC2	Yeterli güvenlik önlemlerinin alınmaması nedeniyle hassas iş verileri ve proje ayrıntıları sızdırılabilir					
	Yazılıma Potansiyel Aşırı Güven					
POS1	Görev organizasyonu için görev yönetimi yazılımına aşırı bağımlıyım					
POS2	Yazılımın yeteneklerini kullanmak ile insan muhakemesini ve uyarlanabilirliğini sürdürmek arasında bir denge kuramıyorum.					

BÖLÜM E: ÇEVRİMİÇİ İŞ ÜRETKENLİĞİ

Lütfen aşağıdaki ifadelere ne ölçüde katıldığınızı belirtiniz. Burada 1 Kesinlikle Katılmıyorum'u ve 5 Kesinlikle Katılıyorum'u temsil etmektedir.

	Çevrimiçi İş Üretkenliği	1	2	3	4	5
OBP1	Görev yönetimi yazılımının benimsenmesi, çevrimiçi işimdeki iş akışlarını yapılandırmamı sağladı					
OBP2	Görev organizasyonu ve önceliklendirme, görevi ve projeyi zamanında tamamlamamı sağladı					
OBP3	Görev yönetimi yazılımı, işletmemdeki süreçleri kolaylaştırmamı sağladı					
OBP4	Görev yönetimi yazılımı sayesinde gelişmiş zaman ve kaynak yönetimim ile müşteri beklentilerini karşılayabilirim					
OBP5	Görev yönetimi yazılımı işimin maliyet tasarrufunu artırdı					
OBP6	Görev yönetimi yazılımıyla, ürünleri ve hizmetleri hızlı bir şekilde teslim ederek müşterilerimi memnun edebilirim.					

CURRICULUM VITAE

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2017-2020	BSc. Business Administration, Gaziantep University, Turkiye
2020-2023	MA in Management, Ibn Haldun University, Turkiye

Experience:

September 2020 -	Unging, EnglishVerse360 | Founder
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