



Street Food and Sustainability: Exploring Circular Economy Practices in Street Food Markets: A Case Study of Reffen, Copenhagen



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Abstract

Purpose: The purpose of this study is to explore the day-to-day practices of Reffen's Street Food vendors through the lens of Practice Theory, either the vendor every day practices support or challenge the market's claim of being a sustainable, circular economy space.

Design/methodology/approach: The study is based on an ethnographic approach as part of a qualitative case study. Data was collected through Semi-structure interviews with 12 vendors at Reffen, informal talk, observation, field visit, and field notes.

Findings: The finding outlines that there is a gap between the Reffen branding and Vendors actual practice. Under the element of Materials Vendors have just one or two general bins in the stalls, and lacks sorting waste effectively. The central food sorting containers placed by Reffen Management seems to be completely empty during the observation time. The study outlines inconsistent vendor competencies, some vendors staff do not have basic knowledge of sustainability or circularity, those Vendors who have knowledge is also driven by personal values, cultural background or previous long term work experience in related field rather than any structured training offered by Reffen. In terms of meaning, Reffen has promoted itself as a sustainable and circular market. However, lacks shared internalized meaning among vendors. Also, symbolic frame reflecting sign, bord, promoting sustainability or circularity were not visible to make customers aware. Moreover, Reffen has not fostered a shared sense of community around circular values in comparison to advanced models like Tivoli and KleanHub's reusable, Re-washable cup, containers system.

Research limitations: The study outlines only 12 vendors interviews of 2025 season and observation and interview time period was from March to May 2025. Every season there is a new or rotation of vendors. Therefore, interviewing more vendors, with longer observation and seasonal comparison is recommended. Also, the study Lack Reffen's management perspective.

Practical implications: The findings and suggestions of this study have important implications for urban street food markets. In real world practices how sustainability and circular economy Principles can be

designed, implemented or can have challenges. The insights can help market organizers, urban planners recognize the importance of Material infrastructure (waste sorting, reusable packaging or reduce single use packaging), improving vendors competencies through structured training, peer learning and foster shared cultural values and motivations.

Originality/value: This study offers to address the research gap applying Practice Theory and its three key elements Materials, Competencies, and Meanings to critically analyze Reffen vendors everyday practices highlighting the gap between policy claim by the Reffen and the actual on the ground realities of vendors towards sustainable or circular practice. However, some practices and Reffen concepts could be leading example for many developing countries in the street food market where they lack even basic facilities.

Keywords: Circular Economy (CE), Sustainability, Practice Theory, Urban Street Food, Reffen's Market, Vendor Practices, Waste management and sorting.

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Sunita Phuyal & Daljeet Kaur

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CHAPTER 1- Introduction

1.1 Introduction

Tourism plays an important role in developing and developing countries' global economy and is one of the fastest growing industries (Naseem, S. 2021). International tourism in 2024 has recovered (99%) pre pandemic level with approximately 1.4 billion international tourists (UN Tourism, 2025). Similarly, Danish tourism plays a significant role in national economy as in 2022, 152.6 billion revenue was generated from tourism accounting approximately 1,46,000 jobs (VisitDenmark, 2025). Global hospitality in 2024 expanded to approximately \$4.9 trillion and expected to reach US\$1,114.00 billion by 2029 (EHL 2025). Moreover, according to Statista, (2024), approximately 83% of tourists around the world think sustainable travel plays an important role. Also, Booking.com (2024), outlines that more than 75% of global travelers want to make their holiday travel sustainable. Also, the recent study done by Cardenas, et al., (2024). outline circular practices encourage sustainable behavior. Henderson, et al., (2012) stated that the national and international tourist spends more than one-third of their travel expenses on food. Similarly, Malec L. (2021), States tourists allocate approximately 25% of their travel expenses to food and beverages. This implies that travel dining represents a predominant and important part of tourism activities and peak tourist experiences. Also, tourist interest and preference for local food and cultural value play an essential role for the choice of destinations (Rousta, et al., 2020 & Chang, et al., 2011). According to the leisure traveler over 80% stated that food and drinks experience plays an essential role towards the overall satisfaction of the trip and likely influences the desire to re-visit the destination (CBI 2021).

Street food is a destination which depicts tangible local food varieties and intangible cultural value of local people various gastronomic experiences (Jeaheng, et al., 2023). According to Gupta, et al., (2018), Street foods refer to the food and drinks that are prepared and sold by vendors in public space and these foods are commonly offered from mobile stalls, carts, trailers or food trucks. Numerous researchers (Muinde, et al., 2005; Bhowmik, 2010; Gupta, et al., 2018; Saxena, et al., 2019) have stated that street food vendors are often uneducated, economically disadvantaged, insecure nutrition inadequate

knowledge and untrained about food safety, hygiene and sanitation. Thus, poor hygiene and sanitation practices by street food vendors can lead to several foodborne diseases and street food is considered as a major risk factor (Muinde, et al., 2005). Similarly, Suryani,(2024), states unsystematic disposal of used cooking oil damage ground water quality, contaminates soil, and reusing without proper recycling leads to several health risk. Similarly, reducing food waste, effective waste collection and disposal and lack of sustainable waste generation is one of the crucial problems within the hospitality sector and street vending (Gupta, et al., 2018; Grangxabe, 2024; Rogerson, 2016; Camilleri, M. A. 2021).

Street food in tourism has tremendous benefits apart from some disadvantages. Street food in some countries like India, Vietnam, Taiwan, Hong Kong, South Korea, Singapore, Thailand plays a significant role in tourism (Jeaheng, et al., 2023; Muinde, et al., 2005; Henderson, J. C. 2019; Gupta, et al.,2018). Also, Street food has high social and economic value in Europe. And approximately 2.5 billion people consume street food world widely and it is considered as a low cost and convenient food market (Alfiero, 2019). Street vendors often act as informal ambassadors of local food heritage, reinforcing the role of street food in both culinary tourism and urban cultural sustainability (Alfiero et al., 2019). Also, the study of Tsai, et al., 2017; Lee 2020 outlines Street food is increasingly acknowledged as a key element in motivating tourists to explore a particular destination. Similarly, Street food is not just for eating, but largely driven by economic benefits, affordability, convenience, and generating employment. Tourists can watch live preparation and engage with vendors, enjoy live streets which enhance their experience, view of the destination and increase the overall satisfaction of the destination (Huong, et al., 2023).

Reffen street food market in Copenhagen, Denmark is considered to be the largest street food market in Northern Europe with more than 50 stalls and located over 6000m² area and access to another 4000m² area by the water in Refshaleøen (Reffen, 2025). The Reffen transformed industrial area into a cultural hotspot and the stalls are built from old unused shipping containers. The Reffen street food was started from 2018 by Jesper Møller emphasizing sustainability and Reduce and Reuse concept.



Pic: Reffen Transformation (Reffen, 2025)

Reffen is one of the most visited destinations in Copenhagen which not only offers food, but tourists can explore colorful art, music and multi-culture and container theme buildings (Visit Copenhagen, 2025). Reffen is also a popular destination with diverse food variety, waterfront view, and a nice atmosphere located in the heart of Capital city and the travelers looking for exciting sustainable, eco-friendly and inclusive culinary experiences Reffen aims to offer a sustainable environment (Reffen, 2025). Moreover, Reffen street food in Copenhagen Denmark is a new concept. Normally, street food is considered as a place where stalls are placed in a busy street or side by the road and people have to enjoy the food by standing. Reffen is a place with a large surface area with more than 40 stalls are placed every season and it has an area where people can sit on benches or chairs that are placed in top of soil like a beach and enjoy the food with music, fire, and harbor view.

Additionally, Reffen has outlined Sustainability is one of the strong agenda following the belief of “Reduce and Reuse”, zero-waste philosophy, where every stall has to follow compostable food service, reduce food waste, use organic and local ingredient as possible (Reffen, 2025). Reffen is considered as a leading example of adaptive “Reduce and Reuse” urban space a promotion of sustainability and environmental consciousness (The Danish Dream, 2025). The Reffen provides valuable insights into urban street food sustainable model and early adoption of CE principles which can be the inspiration to other cities and countries to run street food market with CE models in tourism and hospitality industry. Therefore, Street food market Reffen is chosen as a case study for this research.

The Circular Economy (CE) has been considered as a new sustainable paradigm, which offers business and customers to protect the environment (Maia, 2024). Circular Economy (CE) is an alternative solution for liner traditional economy to model "take-make-dispose" recognized by the Ellen MacArthur Foundation (2015).

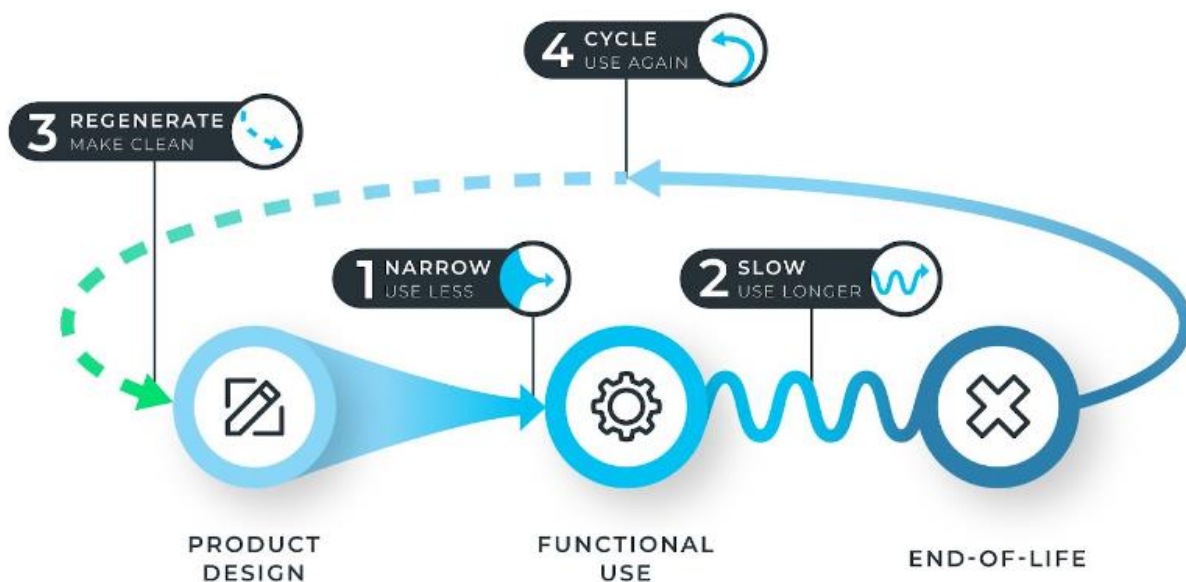


Figure 1: Depicts the four Strategies to achieve Circular Objectives (Circle Economy, 2023).

The planet resources are under threat as humans currently are living beyond the limit in unsustainable way, due to which natural system are under pressure which leads to global climate change, increase in greenhouse gas emissions, ecological degradation, threats to biodiversity, economy prosperity and human well-being (PACE, 2021). According to the UN Environment Programmer's, Global resource consumption is expected to rise by 60% by 2060 compared to 2020, material use grew more than three times over the past 50 years (World Economic Forum, 2025). We will need the equivalent of three Earths to support our lifestyles (United Nations 2021). "More than 90 percent of what we take from the earth is wasted" (Dawadi, B. 2022). Moreover, the Grangxabe, et al., (2024) states increase in street vendors increases the waste caused pollution. Poor food management is a significant factor affecting waste generation (Calloni, M., 2013). Thus, Circular economy model is the most preferred method (92%) to manage food waste without any negative impacts (Circle Economy., 2023). From last decades Circular economy has been paradigm for critically rethinking sustainability in tourism and hospitality industry within Europe and Globally. The European Commission has also adopted and accelerated the Circular Economy principle as a policy (Tomassini, 2024). A circular Economy is one of the key solutions for efficient material use, increasing product lifespan, integrate sustainability, optimizing and enhancing resources use through the concept of (Reuse), promoting eco-friendly practice, reducing waste and helping to secure the well-being of present and future generation within the planet limit (Circle Economy, 2023). Hence, it is essential for the hospitality industry to adopt Circular Economy framework because large amounts of waste, energy and disposable produced are consumed. CE helps businesses to have a positive brand image, gain competitive advantages, innovation and promote healthier planet.

Thus, this thesis is motivated by the author's passion towards Circular Economy (CE) and Street Food. Being a tourism Degree student and a professional in the food industry, the author is interested in combining passion and studies with this thesis work. Also, growing in a developing country like Nepal and India where street food consumption has become pre-dominance part of everyday life and tourism. However, it lacks an effective street food market where no sustainability and circularity are promoted, which still even struggles with proper basic hygiene, and basic waste management standards. Therefore, Reffen claim of being sustainable and circular market triggered the authors attention and curiosity. Thus,

this study aims to explore and analyze the Reffen vendors' everyday practice towards sustainability and Circularity through the lens of Practice theory.

1.2 Background of the study

The background of the study outlines the core elements of the study and outlines the context of the study. This section includes Street food and Tourism, Circular Economy and Street Food and Practice Theory and Tourism.

1.2.1 Street food and Tourism

Around 2.5 billion people consume street food everyday world widely as it is considered to be a low cost, easy availability and convenience (Alfiero, S., 2019). Over the past decades, food tourism has become a popular trend world widely (Jeaheng, Y., & Han, H. 2020). Also, Tourism is one of the largest and fast-growing industries around the world and second highest revenue generating industry after oil industry (Rathore, 2012)

Street food culture has become an essential component of culinary tourism, which provides authentic budget friendly food expenses which has significant contribution to local economy and cultural preservation (Kedla, 2025). According to WHO, (2019), street food refers to the prepared ready-to-eat foods and beverage sold in street for immediate consumption without further preparation. Street food offers a wide variety of food depending on the country's cultural food. There is breakfast food, like donuts, pastries, dairy products and so on or main dish for lunch dinner, fruits, vegetables and especially traditional drinks which are sold on a street (Bouafou, et al., 2021)

Irene Tinkers worked in the middle of the 1980s and at the end of the 1990s within a new geo-political order there has been a debate in more than a decade that street food has shifted from poor countries to global societies (Calloni, M. 2013). Also, the study of (Henderson, J. C. 2019), States Street food is an

event that plays important role in attracting a number of visitors and enhancing destination attractiveness. Street food market reflects the food culture, enhances a destination attractiveness and encourages the tourist to re-visit the destination. In many countries, Street food festivals and events draw the attraction of National and International tourist and promote cultural. Street food not only presents local cuisine but allows tourists to explore diverse food culture, history, and tradition (Kedla, 2025). Also, Street food contributes to the food heritage of the place, preserves food culture, has high socioeconomic value, and is beneficial for tourism industry as it attracts more tourists and allows them to local favor food varieties (Alfiero, S., 2019). Street food is everyday practice for millions of populations in Africa, Asia, Latin America (Vignola et al., 2022). The study done by (Kedla, 2025), outlines Capital city of India, Delhi has significantly attracted number of visitors through its lively street food scene and enhances the destination and economy. In many Asian countries street food is considered as an essential tool to capture the interest of maximum tourist (Jeaheng, Y., & Han, H. 2020). Street food in countries like India, Vietnam, Taiwan, Hongkong, Malaysia, Singapore and Thailand is considerably very famous and part of culture and tourism (Jeaheng, Y., & Han, H. 2020).

Street food is sold and consumed mostly as per the experience of the tourists to embrace their local cuisine to the destination (Bellia, 2016). Apart from several advantages, street food also has food safety, hygiene, waste management and sanitation issues. Nowadays, a shift to sustainable tourist consumption behavior, Street food also encourages sustainability. Street food is an important aspect of urban food chain; therefore, it is essential for street food vendors to achieve Sustainable goal and contribute to the food security and environmental sustainability (Vignola et al., 2022). On the other hand, Western part of the world Street food vending in street are not as much as in Eastern Countries. Developed countries have a regulated system in unique perspective according to the countries' urbanization. Similarly, Denmark highly developed country in Western the concept of street food existed. Some of the famous street food of Denmark is Reffen street food Copenhagen, Aarush Street food in Aarhus, Torvehallerne, Broens Street Food, Storms pakhus in Odense and the lighthouse street food in Aalborg (Visit Denmark, 2025). Several researcher (Muinde, et al., 2005; Bhowmik, 2010; Gupta, et al., 2018; Saxena, et al., 2019; Bellia, 2016) has outlined the risk factor associated within street food. However, there are very few research seen in the street food market who has studied the vendors practice in street food in developed countries like Denmark.

Similarly, Street food stimulates and promote tourism and offer new opportunities for entrepreneurship world widely. Street food is a business that enables individuals to be self-employed with low capital investment and grow a small business (Gupta, et al., 2018). Denmark's restaurant and mobile food service industry has grown tremendously from 2013 to 2019 with a turnover of 4.28 billion Euros in 2019 (Repoter Linker, 2025). Also, in 2023, the sales from stalls and market sectors in Denmark reached to 447.1 million DKK (Repoter Linker, 2025). Reffen street food market in Refshaleøen in Copenhagen is an urban sustainable street food startup which reflects innovation and creativity (Visit Denmark, 2025).



Pic: Reffen (Reffen, 2025)

Reffen is one of the famous and largest Street food market in Copenhagen Denmark and become a core part of summer experiences which attract approximately half million visitors during the summers (Mighty Media LLC, 2024).

An Evolving of Reffen Street Food Market

The Refshaleøen's is a historical transformation, from mid-19 century until late 20th century Refshaleøen's was crowded artificial island with shipbuilding activity in north of Amager (Kitchen rebel, 2024). The island was built back in the 1860s by dumping soil into the water and from 1872-1996 it has been home for shipyards. Later it becomes the residential area through the company of Christianshavn, but in 1996 the company went bankrupt, and the shipyard was closed. After that Refshaleøen Ejendomsselskab A/S, company owned the land and distributed to people and the place became the opportunities for creative entrepreneurs, musicians, artists (Kitchen rebel, 2024). In May 2018 Jesper Møller open the street food market Reffen with thriving food stalls from different cultural backgrounds. The Reffen was the follow-up project coinciding second Copenhagen Street food market The Bridge Street Kitchen. The Reffen is an open space street food market with more than 40 stalls with more than 18 nations, which usually open from March till September (The Danish Dream, 2025).



Pic: Transformation (Reffen, 2025)

Reffen is not just about the food but a major attraction hub with young chefs and entrepreneurs, creativity and cultural culinary innovation, outdoor dining, scenic view of harbor, surrounded by a relax atmosphere. Reffen also has several packages of events, workshops, private functions (Reffen, 2025). From Dusty and neglected harborside lot, surrounded by run-down workshops and warehouses, Jesper Møller Turned to the largest street food market Reffen.



Pic: Reffen.dk

Jesper Møller outline Reffen commitment to sustainability and strong emphasis on Reduce and Reuse. As most of the Structure of Reffen are from recycled materials, permanent stalls are old containers that can no longer be used for shipping. Reffen has become one of the unique attractions which emphasizes

sustainability and expanding culinary scene (Kitchen rebel, 2024). In recent years the demand for food in the streets around the world is growing and street food has become one of the important aspects of tourism. Also, several research has been outlined in Asian street food market. However, being one of the largest street food market in Nordic region there has been very little empirical literature found of Reffen. Therefore, this study aims to explore the Reffen vendors' practices towards circular Economy principles and sustainable behavior.

1.2.2 Circular Economy and Street Food

The study report in 1976 submitted to the European Commission by Walter stahel on *The Potential for Substituting Manpower for Energy*, co-authored by Genevieve Reday outline the vision of Circular economy (Ellen MacArthur Foundation, 2022). The vision was regarding employment generating, waste reduction, economic competitiveness and resource conservation. Again, in 1970s Stahel used the phrase “cradle to cradle” developing a “close-looped” approach to industrial processes and established the Product Life Institute in Geneva with four main objectives product-life extension, long-life goods, reconditioning activities, and waste prevention. Also, Stahel argues Circular Economy should be viewed as a framework. Also, Circular Economy was introduced by Pearce and Turner (1989). Ellen MacArthur [12, p. 26-27] states that “the circular economy concept has deep-rooted origins and cannot be traced back to one single date or author”. Ellen MacArthur also states Circular Economy historical development through various concepts like Regenerative design, Performance Economy, Cradle to Cradle, industrial ecology and Biomimicry. The concept was historically overviewed since the 1960s by numerous scholars, theorists, and professional associations and overlap the approaches of distinguishing evolutionary phases and framings of a concept. Though the stage adoption of regulation in EU promoting the transition to Circular Economy key actions actively began in 2015 and continue to the day. Since 2016, there has been a sharp scientific interest in Circular Economy as there were a number of peer-reviewed publications in Circular Economy. A total of 78 articles were published in 2015; 207 in 2016; 471 in 2017; 800 in 2018; 1243 in 2019 (Maksymiv, 2021). However, most of the research focuses on large scale industrial industry. There has been very little research regarding circular economy in tourism field and also in small scale industry like street food. Therefore, taking the emerging concept of Circular

Economy towards environmental sustainability, reuse, reduce and waste management and maximum utilization of resources, this research aims to explore Reffen vendor Circular Economy Practices.

To address the sustainability issues, the concept of the Circular Economy has become a new important agenda of policymakers (Brennan et al., 2015). Circular Economy emphasizes minimum use of virgin material and adopts clean technologies (Andersen 1997, 1999). CE is also considered as sustainable alternative which enables reducing waste, reuse components of goods, effective energy inputs, preservation of environment, increasing operational ability and cost efficiency, resistance to more sustainable food supply (promoting local ingredient), and minimizing exhausting material production (Camilleri, M. A. 2019). Additionally, Camilleri, M. A. (2021). Outlines for sustainable preparation and consumption of food in the tourism industry Circular Economy helps to minimize the raw material use and resources can be reused-restored, refurbished and recycled. Also, Geissdoerfer, et al., (2017) outlines Circular economy generates resource inputs and waste, emission, energy leakage, helps to achieve long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing and recycling.



Pic: (Circle Economy, 2023).

Food waste has become a significant threat to the world and a third of the total food produced is wasted and adopting a circular economic concept in the food business ensures a more resilient and sustainable food supply. Around forty percent of the food waste comes from the hospitality sector. (Camilleri, M. A. 2021). Similarly, Street food market creates large portion of waste and pollution (Grangxabe, et al., (2024). Humans are living beyond the ecological planet, and the burden of humanity needs 3 new earths to support social, economic and demographic existence (WWF, 2012). Circularity inherent sustainable consumption of nature, water, energy, food, land, protect global common necessity to conserve the carrying capacity of nature (Stahel, W. R. 2020). Therefore, it is very essential for street food vendors to adopt Circular Economy principles to create sustainable environment, and maximize the use of resources. Through various practices such as reducing the waste, sorting the waste properly so it can be recycled, consuming sustainable energy, utilizing local product, reusing the oil by using efficient oil filtration and dispose it appropriately for converting waste into resources, display the sign and symbol to make consumer aware about the importance of sustainable consumption, and not only focusing on the physical infrastructure or material but creating awareness, understanding, importance of practice, knowledge how to participate appropriately through formal peer-learning and structured training.

1.2.3 Practice Theory and Tourism

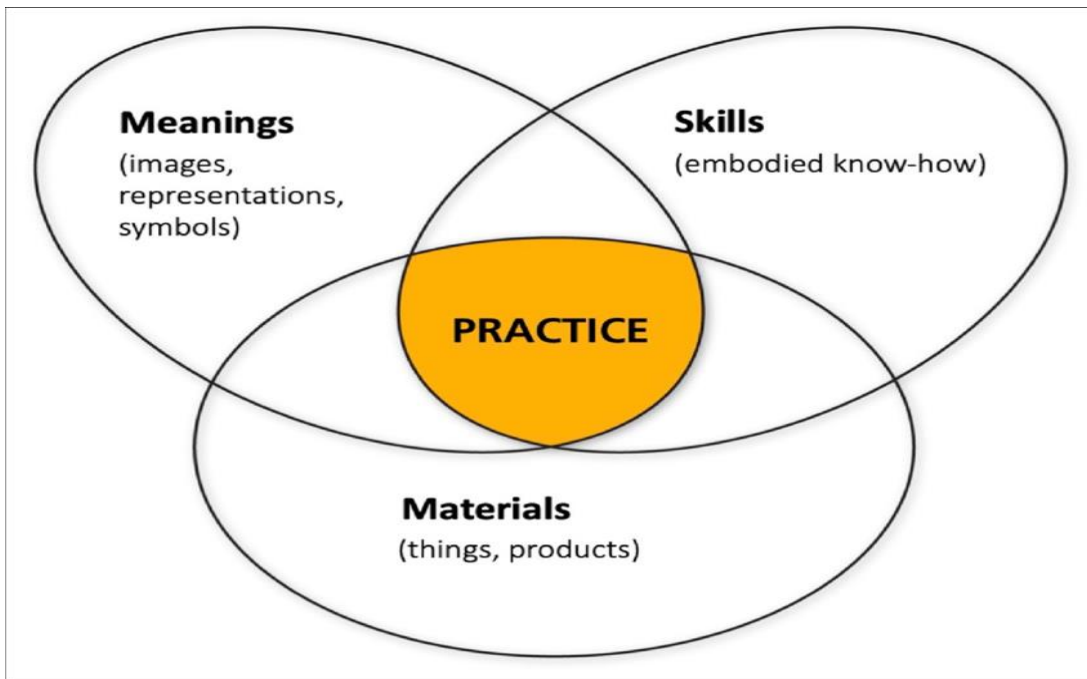
From 20th Century, subject fields like Anthropology, sociology and history have taken “practices” a primary object of the study (Rouse, J. 2007). The practice idiom is used in both aspects in highly organized activities and routine parts of everyday life. Also, some of the performance patterns are identified as a “practice” and Practice can be short-term or stable long-term pattern of activities. Attention to practice requires a fundamental role to vocabulary or verbal form or performance (Rouse, J. 2007).

Pierre Bourdieu and Anthony Giddens are mentioned as practice theorists. Also, Sherry Ortner’s (1984) article on “Theory in Anthropology Since the Sixties” outlined "practice" as an anthropological theory in the 1980s. and the theory that is continues to study until today. Also, Ortner argued that “the newer practice orientation” in anthropology. Michael Oakeshott, Michael Polanyi, or Alasdair MacIntyre have also been mentioned as practice theorists. Practice theory outlines that human practices cannot be

analyzed without considering human behavior and social structure separately but can be seen as influencing each other in reciprocal ways (Lamers, 2017). Practice theories encourage attention to publicly accessible performances rather than private mental events. It stated the outward performance rather than inner belief (Rouse, J. 2007).

One of the major concepts of Practice theory is ‘social practice’. According to Reckwitz, (2002), social practice refers “a routinised type of behavior which consist of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, ‘things and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge”. Practice can be understood as a routine “doing and saying” performed by competent and experienced human actor involving material object and infrastructures.

According to Shove,et al., (2012), framework for social practices is composed of mainly three elements “materials’ (e.g. bodies, things, technologies, and tangible physical entities), ‘competences’ (e.g. skills, know-how, techniques) and ‘meanings’ (e.g. symbolic meanings, ideas and aspirations)”. Over time, combination of these features created through repeated enactments (practices-as-performances) and social practices then become identifiable as entities (practices-as-entities), larger bundle of practices. For instance, a journey is recognized as an entity with different configurations of materials (small ships, Zodiacs, remote environments) competences (navigation, guiding, interpretation) and meanings (environmental sustainability, adventure, safety).



Pic: Tripartite model of social practice theory. Sources: Shove et al. (2012) (Ref: Morgan, 2022)

Also, journey of practices is performed across the world in different ways. Street food has normal everyday routine performance such as buying products, transporting, cooking, selling street food, throwing away garbage, usage of energy, oil, these activities interact a bundle of social practices of producing, supplying, and consuming street food. Each social practice is composed of three core elements: materials, meanings, and competences. Material elements are food items prepared and sold, ingredients, preparing installations cooking stove, utensils, waste bin, packages, and the competencies are the skill and knowledge to perform day to day practices such as preparing good quality, buying sustainable products, enhancing use of local ingredients, understanding the need of customers, knowledge to identify the practices enhance sustainability or barrier to the Circular economy. Meaning in Street food practices are value for money, convenience, food safety, and value for sustainability (Vignola, et al., 2022).

Shove et al. (2012) indicate these three elements of Practice theory are helpful while doing empirical research on social change and exploring the social practices. Additionally, from almost one and half decade Practice theory has been taken in social science and tourism studies. Practice theories offer a new perspective on tourism by focusing on social practices as a basis for theorizing and conducting research (Lamers, et al., 2017). Therefore, Practice theory is a relevant theoretical framework for this research. Also, the term practice is widely used in tourism research but in a normal sense without connecting it to the practice theory (e.g. Dredge & Jenkins, 2011; Soica, 2016). However, the practice theory is rarely used in tourism studies. Numerous studies Bargeman, Richards, & Govers, 2022; Rantala, 2010; Verbeek & Mommaas, 2008, outline the benefits of using practice theory understanding tourism practices. Thus, this study aims to outline the research gap and explore the vendors' practices towards circular economy.

The social practice perspective helps to understand the social, cultural, and material aspects of street food vendors everyday practices (Shove et al., 2012). Selling and buying street food is everyday practice for millions of people. The practices of street food vendors are embedded in social routines such as producing food to consume and disposing waste, these behavior or practices impact environmental performance and can employ resources such as soil, energy, waste, local ingredients, etc. Social practice theory is a social science theory that is being used in relation to the food system and sustainability change. The practices theory enables the researcher to emphasize the routines of street food systems that are established (Vignola, 2022). Exploring these routines of street food vendors researchers can visualize the linkages and opportunities to nudge the routine of sustainable or circular practice or identify the barriers or possibilities to de-routinize unsustainable practices. Taking three elements of Practice theory materials, competences, meanings, the researcher aims to explore Reffen vendors day to day routine practices and outlines whether these routine linkages towards circularity and sustainability or unsustainable practices.

1.2 Research Gap

Circular Economy has become an emerging topic and in recent years there has been several research regarding CE. A total of 3894 articles were published globally in 2023 and expected to grow in future (Dawadi, B. 2022). Despite the increase in CE articles, there is a significant gap between CE and Tourism

(EEA, 2025). The majority of existing research on CE focuses on manufacturing areas and neglects the service sector like tourism and mainly focuses on large scale industry but does not focus on the small-scale industry like street food market (Maia, 2024).

Despite the fact that tourism sectors being characterized by excessive energy, waste consumption, plastic and food waste, air pollution and carbon emission (Maia, 2024). The tourism and hospitality sectors are not fully explored through the strong theoretical foundation and through the CE principal pyramid. And it is very crucial to focus on CE paradigm to rethink sustainability in hospitality in tourism through strong and deep theoretical foundation (Tomassini, 2024). Sørensen, et al., (2020) outlines fewer researchers adopt practice theory lens to explore the sustainability and everyday practices. Also, Reffen being one of the largest urban street food markets in Nordic region there has been very few research done and No research has been found exploring the Reffen vendors practices towards circularity or sustainability through lens of practice theory. This outlines the significant gap in exploring street food market practices towards CE, as it is considered as an important aspect for urban sustainability. Thus, this study addresses the gap by exploring vendors everyday practices applying practice theory to critically analyze how CE is understood, practiced, or potentially challenged by vendors within Reffen.

1.4 Research Questions

1. How do the practices of Reffen's Street Food vendors support or challenge the market's claim of being a sustainable, circular economy space?

1.3 Research objective

The project aims to explore and analyze How circular Economy (CE) are understood and practiced by Reffen vendors in their day-to-day operation. Whether the vendors everyday practices in line with the Street food market claiming and promoting itself as a leading example of sustainability or circularity.

1.5 Structure of the thesis

The thesis work has been illustrated in 6 chapters. Chapter 1 - Introduction, presents the motivation and background of the research work and states research gaps, question and objectives. Chapter 2 - Literature review, Chapter 3 gives the theoretical Framework of the project. Chapter 4 - Methodology, presents the research approach, methods of data collection and data analysis techniques. Chapter 5 - Findings and summary of analysis, 6 – Discussion, Conclusion, Limitation and Recommendation.

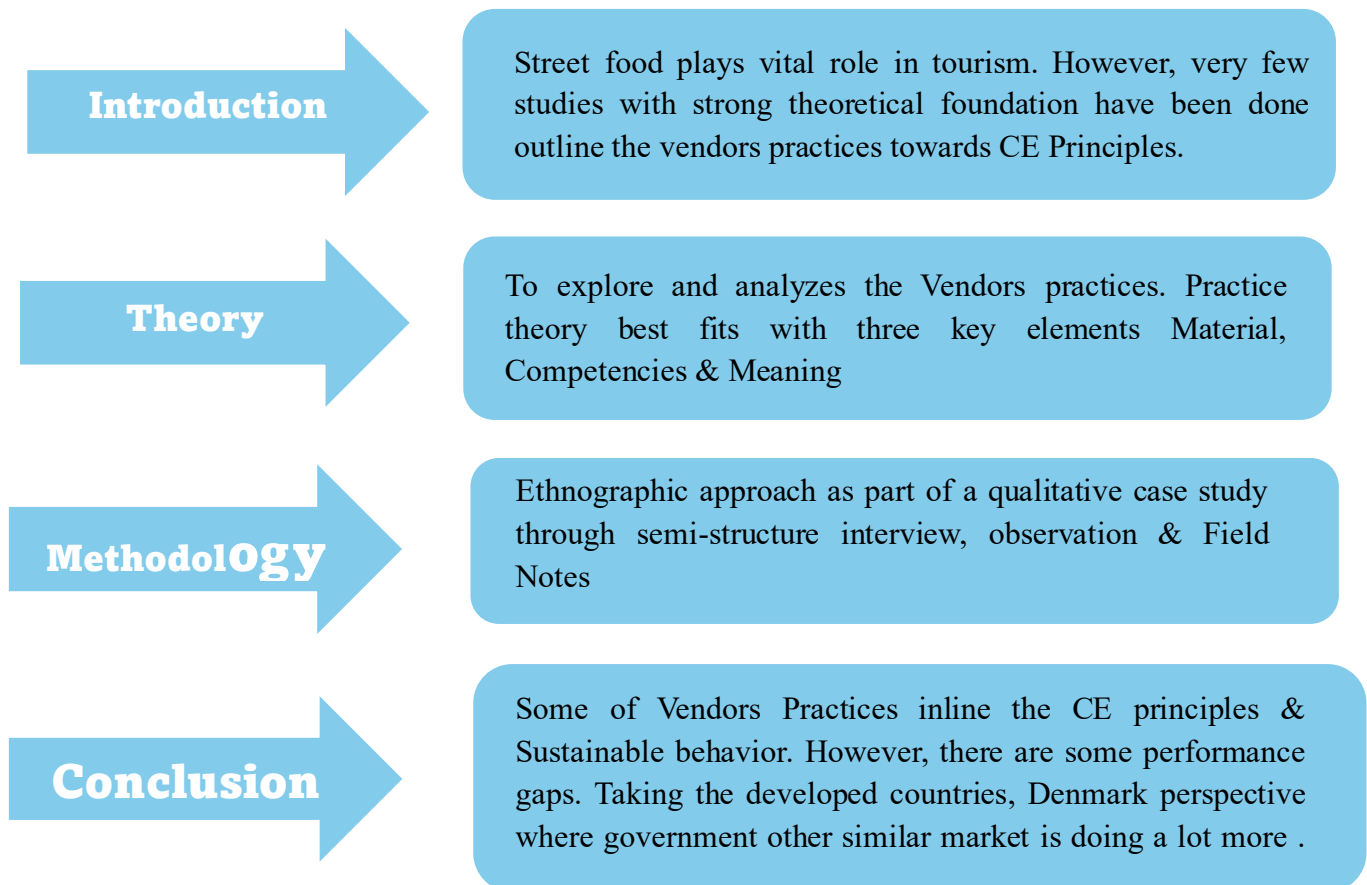


Figure1 : Structure of Project

CHAPTER 2- Literature review

2.1 Introduction

Nowadays, gastronomy tourism has emerged as a remarkable movement of the global tourism industry and with the growth of the tourism sector and its related food service businesses. Street food has become an important part of the urban food system, providing affordable meals while promoting cross cultural interactions and boosting local economies. Street food is defined by the Food and Agriculture organization of United Nations (FAO) as “food and drinks ready for consumption prepared and or sold by professionals or traders mainly on the public roads and other similar places (FAO 1997). According to Irne Tinker (1997) Street vendors can sell anything that is quickly prepared, by any person male or female and at any time of day or night. Each nation has its unique street food styles and varieties based on its culture geography and environment. According to Heelan (n.d) Brazil, France, Mexico, Hong Kong, Malaysia, India, Turkey, Singapore, Morocco and Thailand are among the countries that are well known for having the best street food. Street food has therefore become a popular topic for tourism attractions.

In most of the cities in developing countries street food vending is a very common activity that is also outside the official control and protection of the government. Due to the informal nature of the industry and lack of interest from government the economic contribution of these activities has been overlooked in many developing countries (Alimi, 2016).

However, street food is typically associated with wealthy or developed nations where globalization is valid (Privitera & Nesci, 2015). It is extremely uncommon to see street food vendors in developed nations especially in western societies. In other words, street food vendors are less common in the western world than they are in eastern societies. It appears that western culture developed nations have regulated every aspect of the system and according to urbanization the unique viewpoint on various activities is almost wiped out from the country.

On the other hand, Denmark, a small but highly developed western country, the idea of street food market has still existed, as evidenced by the existence of such markets in various Danish cities like the Reffen street food market in Copenhagen, Storms Pakhus in Odense and Aarhus street food market in Aarhus and the Lighthouse Street food in Aalborg (cheap eats in Denmark,n.d)

As a little more interest in circular economy models and sustainable consumption increases street food markets represent a significant but a little studied setting for analyzing how sustainability is practiced and used in everyday life.

2.2 The Socio-Economic and Cultural Significance of Street Food

The competition of the food industry has been steadily increasing over the last 10 years, partly because of the quick and ongoing changes in consumer behavior and lifestyle. Interest in street food is one example of how these changes might affect dietary habits and behavior patterns. Van't Riet et al. 2003 says that street food or the informal food sector is one of the links in the food chain where it plays a crucial role primarily in cities enabling all local professional categories to meet their food demands. Moreover, Faruque, et al. (2010) say that the street food industry is very crucial to meeting the dietary needs of urban population in many developing countries. Also, it creates jobs for a large group in the informal sector and ensures food security for low-income urban populations. Additionally, street food has great socioeconomic importance since it helps preserve the local culture and food heritage which boosts tourism revenue and strengthens links with the area (Alfiero et al.,2019). Moreover Kedla, S. et al. (2025) says Street food plays a significant role in enhancing tourism experience by offering authentic, affordable, and culturally immersive dining options, since tourists that arrive to a destination have to consume food products at some point during their trip, and in this way, food becomes a part of the whole travel experience.

In Europe , the popularity of street food has led to the opening of more fast food outlets like the Dutch FEBO in town centers and markets of cities like Palermo and Florence serving sandwiches with “lampredotto” or “milza” (spleen).This trend is continuing and connecting many traditions (for example

the kebab or classic Mediterranean Street food) that has gained enormous popularity in the past 10 years (Habib & Brady 2019). Report from Circle Economy, (2022) stated that there are many countries that are adopting policies and innovations aimed at reducing waste and promoting resource efficiency. For example, cities like Amsterdam and Copenhagen have integrated circularity into urban food strategies incentivizing vendors to use biodegradable or reusable packaging and composed organic waste. Street food vendors naturally support sustainable practices because they mostly rely on perishable and seasonal ingredients consequently promote sustainability by minimizing food waste and using hyper-local sourcing.

2.3 Challenges and risks associated with street food vending

Street food has two sides although it makes a destination more appealing and represents the local identity, but poor sanitation or foodborne illness can damage location's reputation. Additionally, it is also documented that street food vendors are often uneducated, poor and lack acquaintance of food safety procedures such as safe working environment, hygiene conditions, food display design and appropriate hand washing methods (Bhowmik, S.,2010). Several researchers (Bryan et al.,1988; Ekanem, 1998) have noted the health risks and food safety concerns associated with street vended food. According to Gupta, V., Khanna, K., & Gupta, R. K. (2018) street food vending is usually carried out in small mobile food vending units (such as canopies trailers and push carts) with inadequate equipment design and layout, poor environmental hygiene and sanitation, improper food management and storage practices and low quality of raw material. In many cities' street vendors lack access to adequate trash disposal infrastructure or are unaware of hygienic practices leading to accumulation of food scraps, single use plastic and packaging materials in public spaces. As a result, waste from street food activities presents a major challenge to municipal waste management system particularly in Asia, latin American and African cities with high population densities (Gupta, et al., 2018; Chiodelli, 2019; Marinaro, 2022; Rogerson, 2016).

In order to address these issues, comprehensive policy frameworks that support infrastructure development, vendor education and circular economy principles are crucial. In this regard, Reffen street

food market in Copenhagen provides an excellent example of how sustainable practices may be integrated into street food experience. By following the circular economy principles Reffen promotes the use of biodegradable materials, waste sorting, local sourcing and vendor accountability (Circle Economy, 2023).

2.4 The Cultural and Touristic Significance of Street Food

Alfiero et al. (2019) argue that street food is of high socioeconomic value, as it contributes to preserving the culture and food heritage of a place, with benefits also in terms of increased tourism, as it attracts those wanting to enjoy the flavors of local gastronomic specialties. He mentioned that street food is a means of economic and cultural interactions between local people and visitors. Moreover, Street food also gives visitors an authentic way to interact with local culture, allowing them to experience local cuisine, traditions, and daily social interactions. Street vendors he says serve as informal ambassadors of a place's culinary culture and establish a tangible connection between visitors and the local identity (J Timothy, 2021). Numerous other studies say that food is a powerful symbol of the local identity, community and culture that attract tourists (Kedla, S., Nandini, B., & Chethan, S., 2025). Similarly, the research by Nielsen & Sørensen, (2019) mentioned that street food serves as cultural bridge, introducing international visitors to Danish traditions while embracing global influences. For examples some areas in Copenhagen like Nørrebro and Vesterbro are lined with food trucks and stalls offering everything from Asian inspired smørrebrød to Middel eastern shawarma, reflecting Copenhagen's multiculturalism. Many tourist destinations utilize street food as a strategic tool to attract tourists and Studies show that tourists are always attracted to local cultures and resources, and food is one of them (Bouafou, K. G. M., Beugré, G. F. C., & Amani, Y. C. (2021). Food and tourism are intertwined in several ways, as a product or attraction and component of tourism, contributing significantly to the growth and promotion of the destination (Henderson, J. C. (2019).

2.5 Role of street food in Copenhagen's Tourism Industry

Copenhagen street food markets which combine modern innovation with Danish culinary traditions has a significant impact on city's tourism sector. Even though Copenhagen is very well known all around the world for its Michelin-starred restaurants and New Nordic cuisine, street food has become a more vibrant and easily accessible method for tourists to explore the city's culinary culture. Copenhagen street food culture is distinguished by its focus on sustainability inventiveness and high-quality ingredients all of that are consistent with Denmark's reputation as a later in environmentally conscious living. For example, Reffen Copenhagen's largest street food market host around 50 vendors that serves a variety of cuisines from traditional Danish smørrebrød (open faced sandwiches) to international fusion dishes that are attracting both visitors and locals (Reffen, 2025). An estimated 1.5 million visitors attend this market alone each year, demonstrating its popularity as a worldwide travel attraction (Reffen, 2025). Street food vendors in Copenhagen play a very crucial role in the city's gastronomic identity which is central to its tourism branding. Other street food markets such as Torvehallerne and Papiroen (now relocated to Reffen) have become iconic stops for travelers providing a variety of enjoyable experiences that highlight local flavors such as pickled herring, Danish pastries, and organic hot dogs. These markets not only cater to casual dinner but also reflect Copenhagen's commitment to sustainability through a number of environmentally friendly initiatives such as using locally produced seasonal and organic ingredients, biodegradable packaging.

Many private and public initiatives have actively promoted street food as a part of Copenhagen's tourism strategy. For example, "Copenhagen cooking and food festival" organize festivals and events that showcase street food and cultural performances ,thus enhancing the experiences of tourists (Food Organization of Denmark. (n.d.).

2.6 Conceptual Foundations and Evolution of the Circular Economy

The concept of circular economy has its roots in different approaches of analyzing industrial system dating back to the 1920s but the term of circular economy itself did not come into being until the 1990s. Rodriguez et al. (2020, p. 3) noted that the term “has received a great impulse with the work of the Ellen MacArthur Foundation, founded in 2010 in order to spread these innovative ideas and to accelerate the transition towards a circular regenerative and restorative economy”. Circular economy is basically based on restorative economy where resources and energy are renewable and nontoxic and all the products, components and resources are used for as long as possible (MacArthur ,2013).Moreover, circular economy is also seen as an economic strategy that offers creative alternatives to the currently dominant linear system, targeting economic sustainability through material efficiency and lower resource use.

Although, the term CE is relatively new but the fundamental idea behind it has a deep historical root. Hofman the first president of Royal Society of chemistry in 1848 he underlined the ideal of a factory with no waste only products, highlighted the early industrial understanding of resource efficiency.

According to Murray et al., (2015) The circular economy model promotes closed loop system that resembles biological life cycles and challenging the conventional linear economy. Despite being unexplored in previous academic literature, the circular economy has gained traction recently, especially through the work of Stahel (2015).

On a policy level, the European Union has played a very important role in promoting CE through its Horizon 2020 strategy and larger sustainability goal. The EU's investment plan for Europe supports circular economy initiatives reflecting a commitment to moving towards more circular models of production and consumption. In 2020, the European Commission adopted the new Circular Economy Action Plan (CEAP), which is one of the key pillars of the European Green Deal and Europe’s new goal for sustainable growth. The Green Deal aims to increase resource efficiency by implementing a clean circular economy and stop climate change, reverse biodiversity loss and reduce pollution (European Commission, 2019).Moreover, Notably, in 2023, the EU spent around €381 billion toward research and development, with an extra €5.5 billion from structural funds specifically directed at waste management and national-level CE investments (Eurostat, 2024).

2.7 Circular Economy: A New Path for Sustainable Innovation

Nowadays one of the biggest difficulties in environmental management across the world is ensuring that our activities conform to the principles of sustainable development (Xu et al. 2018) which balance three requirements: the social, economic and environmental objective (Krajnc and Glavic 2005). The concept of sustainability was often essential for both individuals and businesses to understand and implement. In Europe businesses systematically began using improvement tools aimed at manufacturing process management practices and communication with internal and external stakeholders as a result of innovation incorporate operations (Buttol et al. 2012). Since then, significant attention has been paid to environmental factors which needs to be integrated into business strategy and corporate culture at every stage of design, production, distribution and disposal (Krajnc and Glavic 2005).

Currently the newest concept for pursuing global sustainability is the circular economy (Stanis 2012). The most important advantage in moving to a more circular economy-based approach is the possibility of preserving added value in products for as long as possible and extracting their greatest value and eliminating waste. Moreover, CE based system keeps resources within the economy. When a product reaches the end of its life it can be efficiently reused again and again and create further value (Smol et al. 2015). From a practical point of view the circular economic strategy is absolutely essential because in the 21st century science is now searching for effective restorative methods to provide future generations with the chance of more sustainable development. Converting waste into resources is one key of the circular economy (Official Journal of the European Union 2008).

Circular economy and tourism Circular business models in tourism enhance environmental performance in tourism and also increase revenue, reduce costs and support the creation of local jobs. Girard and Nocca (2017, p. 68) increased awareness of the potential of circular economy in the tourism industry and presented the idea of circular tourism. They described it as a model that can produce goods and services without wasting the planet's limited resources of raw materials, water and energy. Circular tourism is not only reducing the use and waste of non-renewable energy sources, but it also encompasses recovery, reuse, redevelopment and regeneration. As also Manniche et al. (2017) argued that it is important to

understand that circular economy is about reimagining the tourism company as a producer of several products that can be valued rather than wasted. Circular economy supports the tourism industry in attaining sustainable developments and more effective use of resources (Davies & Egas 2022). As an integrative framework it has great potential for motivating tourism stakeholders to adopt more sustainable practices (Manniche et al. 2021). According to Manniche et al. (2021) circularity is the way and sustainability is the objective. As a result, circular economy is increasingly acknowledged as a tool that the tourism industry may use to achieve sustainable development goals (SDGs) (Einarsson & Sorin 2020; Padilla-Rivera, Russo-Garrido & Merveille 2020). Furthermore, and during the past few years the circular economy has drawn more attention from stakeholders, politicians and managerial staff and it has become a priority in national policies in a growing number of countries. Circular economy appears as an alternative to the current model of production and consumption with the ability to address environmental issues and create opportunities for businesses and economic growth. In circular economy society no waste for disposal should exist rather it should be seen as a new resource for the economy (Geng, Y., & Doberstein, B. (2008). By following the circular economy model, it is possible to reduce the pressure on critical resources and the adverse impact of waste disposal while promoting the reuse of resources and products. As a result, more value can be obtained from the resources that are created. Additionally, the CE has gained a lot of attention in Europe and around the world in the past 10 years. Notably in order to accelerate Europe's shift to a circular economy the European Commission adopted the action plan in 2015. In 2020 this action plan was renewed. Similarly, the UN recognized this type of action plan as a best practice to encourage sustainable development goals (SDGs) and 2030 agenda to be implemented. Academics and professionals in the tourism and hospitality industry, however, have only partially participated in the conversation despite the growing institutional interest. As a result, the implications of circular economy for the tourism and hospitality industry are still largely unexplored (Boluk et al., 2019)

2.8 Circular economy in tourism

Tourism is an industry where circular economy opens up a lot of opportunities. This sector plays a vital role in the ongoing economic change because it has a multiplier effect on the entire economy and may promote circular flow among its suppliers and customers (Vargas-Sanchez 2021). This sector is closely related to other key industries umm like manufacturing food drink transportation waste management

agriculture and electric electrical sector. Thus, the tourism industry players play a significant role in facilitating the circular transformation (Einarsson & Sorin, 2020).

According to Zorpas et al., (2021) Circular economy provides crucial tools for resolving environmental problems caused by tourism, and it improves the well-being of both individuals and communities.

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2.9 Food and circular economy from literature

Circular economy is a new way for the food industry to cut down on waste and also get the most out of resources and promote sustainability by rethinking the way we normally produce and consume. Like in the food industry, this means reusing waste, reducing food waste, cutting down the food waste in supply chain, supporting environmentally friendly ways to turn organic waste into fertilizers or energy like anaerobic digestion. For instance, it is estimated that 1.3-billion-ton food waste will be produced per year (FAO 2011). This waste can be transformed into animal feed, biofuels or cycled material which can reduce environmental impact and improve economic efficiency (Camilleri, M. A. 2021). Moreover, According to Zorpas et al., (2021) proper waste management is crucial for the tourism sector's shift towards a CE and supporting practices like reuse, recycling and waste prevention. It is essential to reduce food waste produced by the tourism sector and the subsequent landfill disposal of this waste, as the processing of 1 t of food waste can produce around 200 m³ of biogas and release about 0.35 t of CO₂ (Zorpas et al., 2021).

According to Geissdoerfer et al., (2017) circular economy is a critical framework for attaining sustainability since it emphasizes close loop system and regenerative design which are in line with the United Nations sustainable development goals (SDGs). Circular economic strategies in the context of food systems such as composting organic waste, repurpose by product and prioritizing local supplier chain can all help to lessen environmental footprints. These strategies are demonstrated by reffen's operations which include onsite composting, collaboration with the local farmers for ingredient sourcing and the use of biodegradable packaging. These initiatives not only divert waste from landfills but also promote regional agriculture, lower transport related emissions and fostering regional economic

resilience (Copenhagen municipality, 2020). However, Kirchherr et al., (2017) caution that there are many barriers that CE adoption often faces like lack of a proper infrastructure for waste separation and higher price of sustainable materials, which may disproportionality impact small scale street food market vendors. Moreover, Numerous authors (Arayal, 2020; Khan et al., 2021; Martínez-Cabrera & López-del-Pino 2021; Sorin & Sivarajah, 2021; Vatansever et al., 2021) suggest that lack of understanding the CE concept among employees acts as a significant barrier when moving towards CE. According to Cornejo-Ortega and Chavez Dagostino (2020) report, the tourism industry is just beginning to understand what circular economy means. In this sense a shift towards circular economy is only possible when tourism sector employees become more conscious of the necessary behavioral changes (Arayal, 2020). This argument is supported by Einarsson and Sorin (2020) who pointed out that the first step in the circular economy circular transformation is to explore and raise knowledge of circular economy like its fundamental principles, practices and potential for value creation. Therefore, tourism employees should be trained in how to effectively transition to CE and encouraged to implement the various aspects of circular economy (Arayal, 2020 & Jaroszewska et al., 2019). In order to achieve this, many authors (Ioannidis et al., 2021; Martínez-Cabrera & López-del-Pino, 2021; Schumann, 2020; Sorin & Sivarajah, 2021) emphasize the necessity of CE education and training for employees.

Moreover, another aspect examined in the literature is the integration of renewable energy system into street food operations. Renewable energy sources include water force (hydro energy, energy of sea currents and waves, high and low tide), biomass (and biogas, including timber and waste), solar energy, and wind energy. The fundamental benefit of renewable energy sources over traditional (non-renewable) energy sources is that while they cannot be depleted over time, it is possible to completely execute their potential.

According to Cerovic, et al., (2014) through adequate and appropriate use of renewable energy sources it is possible to gain a significant competitive advantage in tourism market by conserving natural resources, cutting costs and implementing more significant marketing and promotional activities that attract in a large number of environmentally conscious travelers. This will allow a tourist company and the destination it operates in to be profiled as a destination of excellence and specific characteristics. Therefore, it is believed that promoting the use of renewable energy sources can be an economic and energetic growth of tourism development. The study of Geissdoerfer et al. (2017), outlines clean energy

adoption is a significant component to emphasize Circular economy. Similarly, Circular Economy is stated as a regenerative system in which resource input and waste, emission, and energy leakage are minimized by slowing, closing, and narrowing material and energy loops, facilitating closed-loop systems in cycles of production and consumption, the switch to renewable energy sources is consistent with CE policies. For example, Reffen's use of wood and waste to energy technology is lined with the recommendations by Korhonen et al. (2018) who support decentralized energy solutions in urban settings to reduce the dependency on fossil fuels. However, Hobson & Lynch (2016) critique that focus of many CE initiatives depend on behavior, therefore behavioral change among vendors is equally critical.

The management of Food waste is another important topic. According to Smol et al., (2020) anaerobic digestion and composting are very effective CE strategies for organic waste, and both are already employed at Reffen. In addition, Camilleri (2021) suggest that food markets can implement various types of preventative measures and recycling techniques to minimize food waste. They can create sustainable menus, offer a choice of different portion sizes, include fewer options in their menus, utilize sharing economy platforms or donate food to recycle surplus food. Similarly, According to Maletz et al. (2018), separating food waste is crucial to the development of a circular economy. The authors also emphasize that infrastructure and awareness are essential for effective food waste separation in circular economy strategies. Separating organic waste at source can improve efficiency of recycling and composting systems. At Reffen, the markets collaboration with Copenhagen's municipal waste system to produce biogas from food scraps highlights the importance of integrated urban system in scaling CE practices. Moreover, proper waste management is very important for tourism's transition towards CE and related practices like reuse, recycling and waste prevention. However, according to Chin & Liu, (2025) vendors, vendor behavior remains a persistent challenge even in progressive markets like in Reffen. Inconsistent participation in waste sorting can undermine efficiency gains. For example, separate bins are available at Reffen to sort waste accordingly like plastics, metals, food waste, oil. How can we be sure that all vendors sort waste? Therefore, vendor behavior could be a big challenge to implement CE principles in the street food market.

In addition, oil reuse and disposal are also a very essential part of CE practices, as it directly addresses waste reduction and resource efficiency used cooking oil is increasingly seen as resource that can be

filtered, reused or transformed into biofuels, contributing to closed loop system within the context of the circular economy.

In summary, Reffen Copenhagen illustrates the potential of circular economy to transform street food markets into hubs of sustainability through multi stakeholder collaboration, innovative waste management and renewable energy integration. While academic perspective varies from what they said on their websites or in their endorsements to critique of scalability and equity. Therefore, in order to understand the role of circular economy in the street food market the researchers chose to focus on real time destination Reffen as a case study that can be analyzed in order to know how much this market follows CE principles and how much it's true that this market says on their websites or on promotional sites regarding CE.

CHAPTER 3- Theoretical Framework

3.1 Introduction

The main goal of presenting a theoretical framework in research is to provide a structural basis that guides the research design, data collection and analysis by connecting theoretical constructs to the practical components of the study (Abend,2008). A theoretical framework shows how theory can be applied methodically to explain empirical reality and helps to clarify the fundamental assumption of research. By making this connection researchers not only support their theoretical choices but also contribute and improve existing theoretical perspectives (Abend,2008).

While several studies have examined the circular economy from the perspective of practices theory the majority have concentrated on industries like tourism (Hall 2020) infrastructure (Geissdoerfer et al., 2017) with little focus on the street food market. This gap offers a great chance to look into how circular economy principles are embedded into the everyday practices of street food vendors at Reffen . By focusing on vendor activities in this context this study intends to provide theoretical understanding and empirical contributions to the field of informal economies urban sustainability, and implementations of circular economy concept in tourism-oriented contexts.

This study outlines the theoretical framework (See figure 2 below) to connect how theory can be applied to meet the study's objectives.

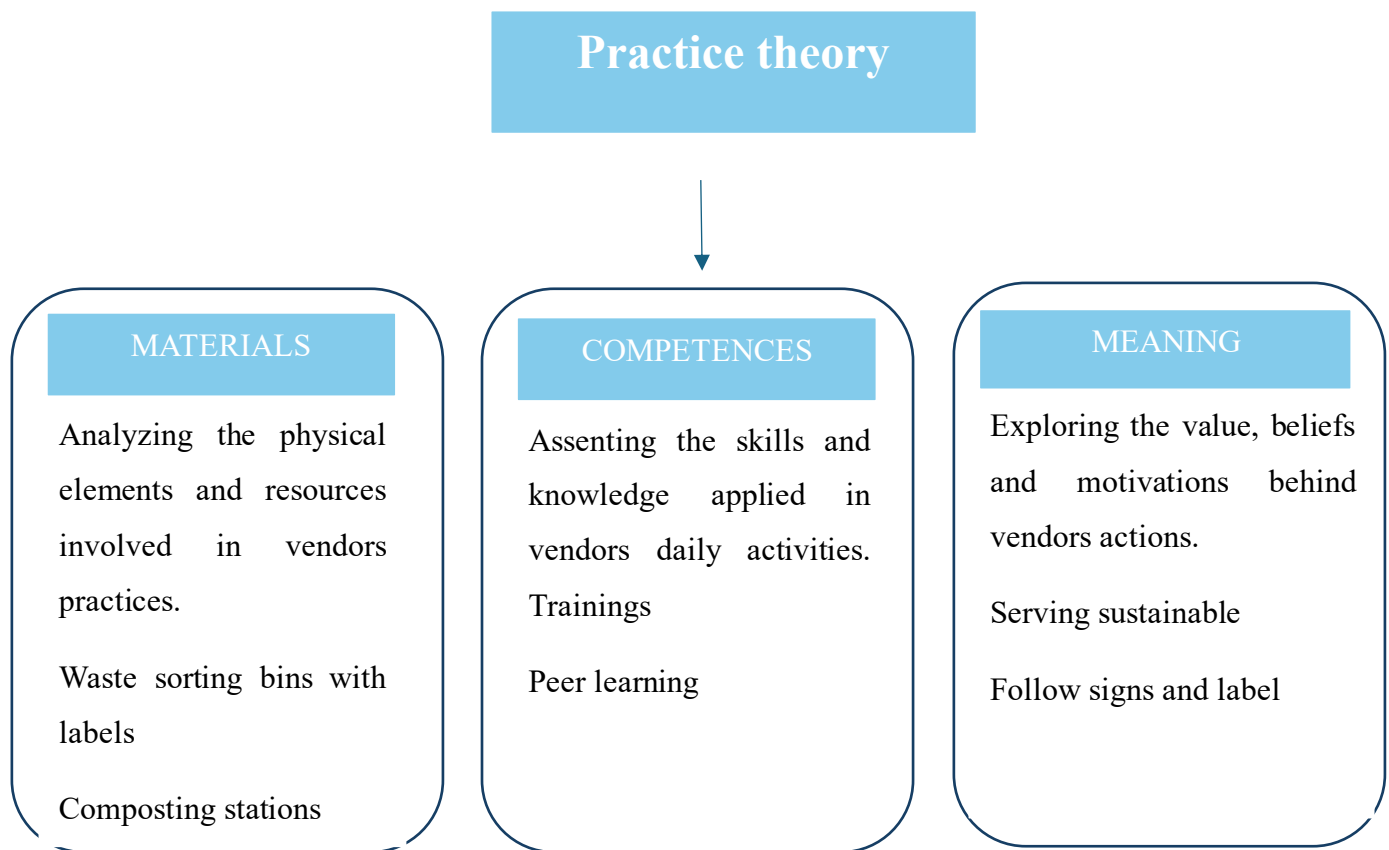


Figure: 2.0 Theoretical Framework

3.2 Practice Theory as a Framework for Understanding Circular Practices at Reffen

Practice theory, as defined by Shove et al. (2012), shifts focus from individual behaviors to routinized, socially embedded actions shaped by the interplay of materials (objects, infrastructure), competences (skills, knowledge), and meanings (symbolic values, norms). This theory provides a framework through which to explore the social, spatial, and symbolic elements of interactions relating to wellbeing. Social

practice approaches describe everyday activities, often not routine in nature, that individuals perform. While these everyday activities are carried out by individuals, they are shared, co-created, and emergent out of specific contexts (such as the built form and spaces of buildings) through the interactions of three elements: meanings, skills, and objects (Reckwitz 2002; Schatzki 1996, 2002; Shove et al. 2012). Practices take place at both the scale of the individual and at the collective level (thereby straddling ‘individual agency’ and ‘social structure’) (Reckwitz 2017; Shove 2017).

Practice theory is a concept in social science that emphasizes the routine behaviors and habits that constitute social life, emphasizing how that are both shaped by social norms and agents of social change. It underlines that how structural norms and individual agency interact and suggesting that people’s everyday practices both influence and are influenced by their social surroundings. Practice theory which is recognized for its cross disciplinary application provides insights into how people's everyday interactions and decisions affect more significant cultural and social societal phenomena.

Numerous academics have made contributions to this area. In their examination of circular economic transitions in urban infrastructure. For example, Sorensen et al.,(2020) highlighted that visitors can actively engage in circular practices applying that sustainability is influenced by everyday behavior rather than only top-down strategies. Similarly, Sørensen, F., (2020), apply practice theory to investigate tourist behaviors at Reffen, a Copenhagen street food market, highlighting how temporary consumption practices intersect with sustainability imperatives. Moreover, Vignola, R., & Oosterveer, P. (2022) apply practice theory to analyze how everyday actions of street food vendors affect environment outcomes. They mentioned that it allows to identifying challenges and lock-ins as well as possibilities to de-routinize unsustainable practices and helps to see the connections and chances to encourage the routinization of sustainable practices (Vignola, R., & Oosterveer, P. 2022). Furthermore, Lamers et al.,(2017) use practice theory to examine tourism as a collection of related social practices rather than isolated visitors’ behavior. They focus on different elements of practice theory like materials, competences and meanings in order to understand how various types of tourism practices like traveling ,volunteering, cruising created and sustained. Practice-based research is also valuable for its unpacking of social phenomena, including tourism practices like volunteering (Bargeman et al., 2020), cruising (Lamers et al., 2017) or experiencing nature.

Despite these different researchers' contributions in various fields of tourism there is still a clear research gap regarding the use of practice theory in the context of the street food market. There are few studies that have examined how street food vendors in informal or semi-formal street food markets apply CE principles in their day-to-day activities. This study aims to address that gap by using practice theory to understand how CE principles are implemented, specifically how street food vendors implement sustainability in their activities like waste management, packaging, sourcing and waste sorting.

Practice theory provides a useful lens for examining how sustainability is enacted through the interplay of materials, meanings, and competences (Shove, Pantzar, & Watson, 2012). This study focusses on the three elements materials, meanings, and competences.

Materials and Infrastructure

According to Shove, et al., (2012) in practice theory, materials refer to physical objects, infrastructures, tools, and technologies that are essential to carry out practice and these materials not only make it possible for activities to be carried out, but they also influence and limit them. To understand how the practices of Reffen's street food vendors align with the market's sustainability and circular economy claims, practice theory highlights the importance of material arrangements.

The availability of materials and infrastructure like composting stations, furniture, solar-powered stalls, labeled waste bins to sort the waste such as Cardboard, paper, plastic, bio glass and metal at Reffen making the circular economy practices easy and possible. Practice theory highlights how these materials' structure possibilities for action, for example clearly labeled bins to sort waste shapes that how vendors dispose of waste. This clearly shows that the infrastructure of Reffen is Facilitate CE or Sustainability.

Competence

According to Hager, P., & Gonczi, A. (1996). "Competence involves the integration of knowledge, skills, attitudes and values, and their application in practice." Competence includes the abilities, knowledge, and skills required to execute practice effectively. Another key aspect of practice theory is competence, the skills and knowledge required to perform sustainable actions effectively. The study aims to explore what skills and knowledge regarding sustainable or circular practice vendors have or lacks. Circular practices require skills and knowledge. Weather Vendors at Reffen minimize food waste, creative reuse

of leftovers (e.g., turning vegetable peels into stocks), or collaboration with local farms for ingredient sourcing. Practice theory frames these as competences learned capacities that are socially reproduced.

Interviews with vendors can tell the researcher that how they acquired these skills are they proving special training and are there any challenges they face which can be explored through surveys or interviews.

Meanings

The third element, meanings in practice theory are the concepts, goals, and symbolic significance related to practice. They include the social and cultural understandings that lend practice its meaning and significance. The meanings are the cultural understandings and emotions that are integral to practices, influencing how and why practices are performed (Reckwitz, 2002). This study aims to explore the major goal, concept, cultural value towards sustainability or circularity from the vendors side, their value, belief towards circularity, sustainability, serving sustainability, follow signs and label. Policies like the 2025 Climate Plan demonstrate how Copenhagen's identity is closely linked to sustainability (City of Copenhagen, 2012). This translates into connotations like "eat sustainably" at Reffen, and these meanings encourage involvement. For example, travelers may visit Reffen to exhibit an eco-conscious identity in addition to enjoying the food (Everett, 2016). However, conflicts can occur when definitions diverge, as in the case of vendors who put pricing ahead of zero-waste principles. The construction and contestation of meanings can be uncovered through document analysis of Reffen's branding materials (such as websites and menus) and interviews.

Finally, this theory could help researchers to know how sustainable Reffen is after gathering data and having interviews with vendors as they could tell the research clearly about infrastructure and other action plans that they made and follow to be more sustainable or circular.

CHAPTER 4- Methodology

4.1 Introduction

Methodology, according to Somekh and Lewin (2005), is "the set of rules or methods by which a specific research project is carried out" as well as the "values, theories, and principles that support a specific research approach." Methodology is a research approach or strategy which outlines how research should be conducted, that contains philosophical assumptions and concepts that impact the understanding of the research issues and the choice of research methodology (Saunders et al. 2009). The methodology is an important part in the project which helps to ensure the tools and techniques used in project are consistent (Saunders et al. 2009). This research is primarily conducted to analyze Circular or Sustainable Practices in Street Food vendors: The Case of Reffen, Copenhagen, which will help researchers to analyze or demonstrate how CE principles are operationalized or practiced in a small-scale urban setting everyday operations or practical challenges to implement CE principles in vendors practices. The methodology chapter will demonstrate the research process and provide argument for selected approach and technique. Also, described how primary and secondary data are gathered and their validity and reliability, study participants. The study provides comprehensive view of circular economy related initiatives in the practices of Reffen street food market vendors.

4.2 Methodological choice

This study adopts Ethnography research design, guided by the Practice Theory, to investigate the vendors' practices towards sustainability or circularity in the context of Reffen street food market Copenhagen. There are mainly two types of research methods: Quantitative and qualitative. Quantitative research focuses on collecting numerical data, identifying the pattern, test hypothesis and gathering samples from the whole population to generalize the findings (Saunders et al., 2009). Qualitative research method

focuses on depth exploration of choice, experiences, value, and social contexts using focus group, field visit, and observation (Saunders et al., 2009). Thus, this study focuses on qualitative research methods.

4.3 Research Design / Approach

This research uses an ethnographic approach as part of a qualitative case study. Ethnographic approach is based on long term multi/faceted interaction with social environment which involves field visit, observation of people's routine, behavior, surrounding and their activities (Sørensen, et al., 2020). Ethnographic is a research design that studies the practices or behavior in natural setting by going in the field not just reading from library. To explore social practice or behavior without seeing them through own eyes, sufficient knowledge of social practice cannot be achieved.

Generally, this method is used to study everyday environment, desire to know what people do in practice, which helps researchers to understand what they really practice rather than what they say they do, or they say what they believe, (Hammersley, et al., 2019). This method helps researchers to observe what people say and do in the contexts with which researchers are primarily concerned. Similarly, this approach is Carried out in naturally occurring settings, formal and informal interview, Observation. Data are recorded in the form of 'unstructured' fieldnotes and/or through electronic recording audio or audio-visual (Hammersley, et al., 2019).

According to (DeWalt, 2011), there are several types of observation types and during the initial phase the researcher focuses on moderate and active observation. These types of field research induce qualitative data that include information from interviews, and non-talking observation and this experience is gathered in a journal. The researcher can observe the practices without talking to the vendors or asking about them. The term conviviality can be used, as people do not have to be very close to learning from each other but be co-existing. Observation in this research, is to fully immerse into the Reffen day to day operation and understand the everyday vendor practices. During the First visit the researcher participated in moderate observation where there was no verbal communication or interview with the vendors, it was non-talking observation.

The second observation technique to collect empirical data is sensory ethnography gathered through field visit. Sensory ethnography is also a qualitative research practice which includes observation and interviews. Sensory experience and perception are the central of the ethnography encounters. Drysdale, (2019) outlines there is no specific practice or technique to define or implement sensory ethnography, but it informs all stages of research project. It captures something of lived experience or practice that is interpreted through researcher full sensorial capacities. The regime of sense is also a unique system of Meaning and value (Drysdale, 2019). As the research is based on practice theory. Therefore, Meaning and value play an important role in observing the practices. This approach helps researchers sense various cultures or practices, experience, values and perception, for instance researcher sense during the observation such as listening to various languages, observe the everyday practices how food is prepared, served, and what sort of package are used, and how waste is sorted. The researcher also should sense the experience of several unplanned everyday practices of vendors.

Thirdly, Visual ethnography approach has been used in the research. Visual ethnography is an approach that goes beyond the just text and observation. It utilizes visual images, photographs, and videos. Ardévol, E. (2012), also outlines that the Internet has become one of the powerful tools to share text, visual, audio, and open many new avenues for exploration. Ethnographic has also been widely used by social scientists to investigate the use of photography. During the field visit the researcher took several pictures of the materials presented in Reffens. Also, visual pictures depict formal data rather than informal observation and make the analysis or argument strong with proof. Therefore, several visual images (Photograph taken by researcher phone) have been presented in analysis and appendix, pictures were taken during different times and days during the visits. The pictures are not on the same days but are for several days during different visits. Also, several pictures and visual figures from the internet with appropriate citation have been used.

Overall, this study aims to analyze how CE principles are understood and practiced on day-to-day operation of Reffen Vendors. Therefore, ethnography methods are useful for this study. It helps to uncover important small everyday details that might not come through an interview. Small details play an essential role while studying real life practices. An ethnography approach fits with practice theory as

it also helps to analyze the people's everyday practices, what they do rather than what they say. In this study, researchers visited Reffen several days on several time to observe the vendors day-to-day practices and interview vendors and recorded the interview in mobile phone and later transcribed in word file. The interviews were both formal and informal and took notes on the field. An ethnographic approach allows researchers to observe and engage directly with vendors, which helps to analyze how sustainable or circular economy principles are practiced or challenged real experience beyond the claim. Using ethnography study researcher could see what people said and what they actually practice, which make easier to explore and analyze the gap between the Reffens promotion towards circularity and the actual practice happening on the vendors everyday routine.

4.4 Data Collection Method

A data collection method is a systematic techniques and procedures where researcher uses to gather necessary information relevant to the research questions or objectives depending upon the several factors like research approach, design, strategy and time horizon, which will help to answer the research questions (Saunders et.al 2009).

It is one of the essential processes in research as the quality and type of data collection method affects the accuracy, reliability and validity of the findings. Among the two quantitative and qualitative research methods outlined this study focuses on qualitative approaches as it consists of spoken words, typed or printed text, visual images, observation, interviews, field notes (Saunders, et al. 2009, 653). The case study employs a combination of a variety of data collection methods such as documentary research, secondary data, interviews, direct observation (Veal 2018, 183). Veal, (2018) states that multiple methods enhance the depth and reliability of qualitative case studies which allow researchers to explore the topic from various angles and ensure that findings are well grounded by both empirical and contextual evidence. According to Saunders et al. (2009) the two main approaches in research for data collection are primary data collection methods and secondary data collection. This researcher utilizes both primary and secondary data collection methods to ensure a comprehensive understanding of the subject matter.

4.4.1 Secondary data

According to the Saunders, et al. (2009, 653), Secondary data refers to the raw datasets, organizational records, academic reports, online data, statistics, media archives, the data that was collected, compiled and may be used previously for other purposes or analyzed by someone else and the current research can use it for new research objectives. It is also one of the cost effective and time saving methods which enables researchers to access large scale databases following the trends overtime and helps to compare with primary data. In this study, several secondary sources, for instance books, journal, academic article, online websites, reports were utilized to construct theoretical framework and support literature review. The researcher used google scholar to find relevant literature, journal, articles and the term such as "circular economy in tourism," "circular economy in street food markets," "sustainable street food," and "circular economy in Copenhagen" were used to find the relevant source. Additionally, secondary data from newspapers, official guidelines, company websites, and the Reffen Copenhagen website, AI tool were used as a secondary source to correct the grammatical error. Also, the ideas were shared with AI if the researcher was following the right path or something needed to be improved. AI was used as a general guidance in this study.

4.4.2 Primary Data Collection Method

According to Saunders, et al. (2009), primary data collection is the process of gathering firsthand data through interview, survey, observation or experiment according to the research questions and strategy. Primary data is collected by directly asking questions to people about the topic and gathering new information or collecting new firsthand data. In this study primary data were collected through observation, field notes, and semi-structured interviews which include open-ended questions. Semi-structure interview is a common tool to use in qualitative research to gather fresh data (Saunders, et al., 20009).

4.5 Population of study

According to Hair et al., (2017), “the population is the complete set of elements identified for investigation based on the objectives of the research”. The population of the study serves as a foundation to draw the sample which aims to generalize the findings. The topic and nature of the research should be identified to select the population (Hair et al., 2017). For this study, the population are all the staff, manager and owner of Stalls operator at Reffen’s street food market, Copenhagen. For qualitative data collection method 15 plus years age group people are taken into consideration. A short-term research time horizon has been used in this project. Researcher used two months’ time to interview the Reffen vendors from March 20 until May 15, 2025.

4.6 Semi- Structured interview

A semi structured interview is a set of pre-determined questions where interviewers can modify the order of questions according to the interviewees’ responses, and topic of interest and ask to follow up questions and explore new insights that emerge during the conversation within an interview (Saunders et al, 2009). It’s neither fully structured nor fully unstructured, some are open-ended, pre-determined and others are not. Thus, in this study semi-structured interviews are done, and questions were changed according to the knowledge gathered from previous interviews and to make sure that gathered data is correct/valid; to know vendors practice in depth.

Interview guide

An interview guide helps to maintain alignment between research objectives and data collection process by addressing all key areas of topic, theme, interest systematically among participants (Hair et al., 2017). It helps to structure the specific research question the researcher uses during an interview which allows flexibility for exploration. Saunders et al. (2009) outlines the importance of conversation interviews to capture the depth of participants’ practice or experience, and Hair et al. (2017) outlines the value of open-

ended question which helps researchers to get comprehensive narrative from interview. Thus, this study employed informal and open-ended questions to allow participants to express their perspective and practice freely and follow-up questions were asked according to the answer of the interviewee. Active listening and engaging with interviewee were done by saying Nice, okay, that is great! and so on. In this study, face-to-face interviews were done with all the participants (vendors) at Reffen's. All the interviews lasted between 10- 30 minutes, with the vast majority lasting between 15- 20 minutes. Both the interviewed questions and follow-up questions are stated in the appendices with relevant participants.

4.7 Respondent Sample and Procedure

For qualitative method the researcher interviewed randomly selected vendors who are currently working at Reffen's street food market. The total number of interviews were from 12 stalls, where one owner has 2 stalls Canadian Foods Snacks and Smach Bros Burger. Also, Cheesy Dreams and Hygge owner were the same. Total 3 female and 7 Male with 15 + age group. This study conducted face-to-face interview in English Language and Participants were selected and asked both some structured and unstructured questions open-ended question through and answers were recorded on phone that later translate in text form with the help of transcribe software for data analysis. Also, several pictures were taken and have been presented in analysis chapter. The respondents were clearly informed about the purpose of the interview, which was solely for educational purposes and were secure about privacy and sharing of information.

Respondents	Vendors at Reffen's	Number Of Season	Position
Respondent 1	Chat Pata	First	Owner
Respondent 2	Argentina Food(Fuego)	Second	Staff
Respondent 3	Indian Bites	Five	Owner
Respondent 4	Holy Krapow	Three	Manager

Respondent 5	Semo	Second	Owner
Respondent 6	Buono	First	Staff
Respondent 7	The Canadian Food Shack	Second	Owner
Respondent 8	Smach Bros	Second	Owner
Respondent 9	Crêpes à la cart	Two	Staff
Respondent 10	Cheesy Dreams	Five	Owner
Respondent 11	Hygge	Five	Owner
Respondent 12	Everest Nepelese Food	Seven	Owner

Table 1. Vendors information participation in interview.

The owner of Chat Pata was from Pakistan and serves several Pakistani cuisines. The staff of Argentina food (Fuego) was from Argentina and serves food like Pepito a beef from Argentina, Choripan, Argentinian sausage authentic grilled steak with veggies and so on. Indian Bites owner was from India and serves Indian cuisine like Butter Chicken, Chicken Tikka, samosas, pakoras, palak panner and so on. Holy Krapow manager was from Slovakia and serves Thailand's most popular dishes like Pad Krapow. minced meat (typically pork) stir-fried, rice, an egg, spicy basil and so on. SEMO owner was from Italy Rome and serves authentic Roman pizza. Buono staff was from Greece, but the owner is from Italian, and the menu contains crispy Bubble Waffle, the classic Belgian, Italian ice cream served with fresh strawberries and so on. The Smash Bros has several types of burger menu. The Canadian Food Shack the owner from half Danish and half Thai serves North American Street Food, the Canadian Poutine, Ham, cheese, egg, dijon vinaigrette, Mushrooms, cheese, egg, spinach and so on. Cheesy Dreams owner from Denmark specializes in cheese and serves raclette cheese, duck confit sandwich, consisting of duck confit, warm bread and so on. At Hygge traditional Danish dishes is served and some of the menu includes pan-fried plaice with remoulade, juicy Danish meatballs (frikadeller) with pickled sides, and a mouthwatering roast pork sandwich. The Everest Nepalese Food serves Nepalese cuisine like rice, panner Momo dumplings, daal curry and thukpa noodle soup and so on.

4.8 Sampling Design and Methods

According to Hair et al., (2017) sampling method is a technique to select the small number of elements or units (respondent) from a large defined target population which helps to make accurate judgment from large population. The well-structured sampling method helps to ensure findings are valid and reliable (Hair et al., 2017). There are mainly two types of sampling methods, probability and non-probability sampling (Saunders et al. 2009). Hair et al., (2017) defines nonprobability sampling as a “Sampling designs in which the probability of selection of each sampling unit is not known” and the selection of sample unit is based on the judgement of researcher. Similarly, Saunders et al. (2009), states the likelihood of selection of individual is unknown as non-probability sampling does not include random selections and non-probability sampling is often used in qualitative research design where in-depth understanding is prioritized. Whereas Probability sampling is more appropriate to generalize the findings to a wider population (Saunders et al. 2009). Thus, non-probability sampling has been used in this research process as the sample unit is unknown, the researcher targeted all the 15 plus age group stall operators or staff who have worked in Reffens stalls in Copenhagen Denmark.

Under non-probability sampling convenience sampling method has been chosen in this study. Hair et al., (2017) defines convenient sampling as a non-probability sampling method where samples or participants are selected as per the convenience of the researcher and this method is used when time, cost or full access to sampling frame is limited. For qualitative data, we randomly targeted the vendors to interview and asked what their age group is and selected according to the time and convenience of both (respondents and researcher). This method is appropriate for this research because it is a very easy and inexpensive method in terms of time and cost as compared to other methods.

4.9 Ethical Issues and Considerations

Ethical issues refer to the moral principle that guides researchers in performing responsible studies where researchers protect participants' rights, dignity and safety throughout the research process (Saunders et

al., 2009). Saunders et al., (2009) emphasizes ethical considerations are integer part of research design and ethical research involves participants willingness to take part and are informed about the purpose, methods and implications of the research, no physical, emotional or psychological harm is done to participants, the researcher should be transparent regarding the purpose or outcome of study and confidentiality should be maintained according to the participant willingness.

In this study, ethical guidelines were strictly followed where participants were fully informed about the title, purpose and background of the research. The opportunity to participate was voluntary, the participants were assured that they could withdraw from the interview anytime. No personal offensive questions were asked, and the participants were informed that the interview will be recorded. The project also ensures confidentiality as some of the participants hesitate to give the picture of the garbage bin inside the stall where we mentioned the name of the stall will not be displayed in the pictures. The researcher ensured that the participants felt comfortable throughout the interview and took full responsibility for ethical review and approval during the project. Participants were selected fairly without any discrimination. Also, ethical research involves honest data reporting, avoiding bias, not falsifying data, manipulating interview codes, or selectively reporting findings to support preconceived ideas (Saunders et al., 2009; Hair et al., 2017). Thus, the study was approached from a professional and objective standpoint.

4.10 Quality of research

Validity and Reliability are two variables that are commonly used to determine the quality of the research and the level of faith that should be placed in it. According to Sandra et. al., (2009), Validity refers to the degree in which the information presented in the research reflects the phenomena the research claims represent and addresses the accuracy and truthfulness of the measurement. Reliability refers to how similar the findings would be consistently over time, or if the resources were repeated later or with a different group of subjects (Hair et al., 2017). Moreover, Veal, A. J. (2017). Outlines validity and reliability are not only appropriate variables for determining the quality of research but in qualitative research the concept of trustworthiness has been introduced. Also, there are four components of

trustworthiness : credibility, transferability, reliability and objectivity. Thus, this study has been carried out with the best intentions go being truthful, accurate and systematic. The study followed the process a clear methodological path of qualitative case study research through semi-structure interview. The researcher remained neutral as possible and did not lead the interview and biases or change any information. However, semi-structured interviews tend to be always subjective or interpretable. Therefore, 100 percent validity can never identify (Sandra et. al., 2009). Credibility is applied by interviewing experts in the food business. Thus, this study interviews the owner and manager who is running the street food market from long-term in one of the most attractive tourism hubs. Reporting the data in the result section has presented the research objectives. Also, trustworthiness has been maintained, and the interview was recorded in audio and data analysis was done precisely and consistently.

4.11 Thematic analysis

Thematic analysis is a qualitative research method that can be widely used across a range of research questions. It is a method for identifying, analyzing, organizing, describing, and reporting themes found within a data set (Braun & Clarke, 2006). It is generally used to look for themes in data sets including websites, diaries, documents, observations, and interviews. It also provides a flexible and systematic approach for interpreting various forms of data like textual, visual, or audio data by organizing it into meaningful themes (Braun & Clarke, 2006; King, 2004)..Braun and Clarke (2006) and King (2004) argued that thematic analysis is a useful method for examining the perspectives of different research participants, highlighting similarities and differences, and generating unanticipated insights. Thematic analysis is also very useful for summarizing important aspects of a big data set, as it forces the researcher to take a well-structured approach to handling data, helping to produce a clear and organized final report (King, 2004). Thus, the thematic analysis is used in this study as it provides a practical way to identify patterns in the data and link them together in themes and helps to find common themes and patterns among the respondents' answers which was taken through semi-structured interview from the vendors of street food market Reffen regarding their circular economy (sustainable) practices in their day to day operations .All interviews were recorded and later transcribed to facilitate analysis.

The process of thematically analyzing the data according to Braun and Clarke (2021) consists of:

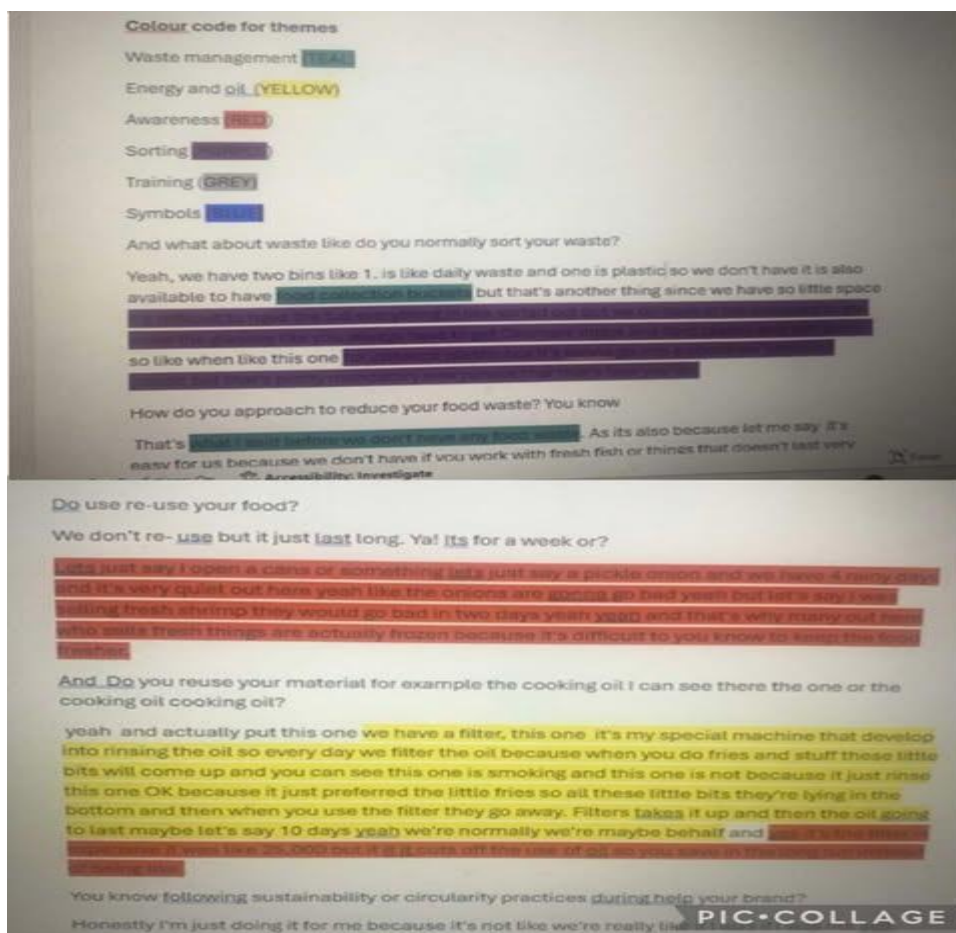
Familiarization of the data

Qualitative data comes in several ways including focus groups, text and documents, multimedia, photos, and recorded observations (Thorne, 2000). Textual data may also include field notes from participant observations, reflexive journal entries, and stories and narratives (Crabtree & Miller, 1999). Reading the data several times is an active method of looking for themes and meaning. According to Braun & Clarke (2006), researchers should look through the entire data set at least once, before starting to code, this is because familiarity with every part of the data may help shape ideas and identify possible patterns. During this phase, researchers may also make notes about ideas for coding that can be returned to in subsequent phases (Lincoln & Guba, 1985).

In accordance with these guidelines, the researcher in this study used an immersive and iterative process to familiarize themselves with the data. As part of our ethnographic approach based on practice theory researcher in this study made repeated observations at the Reffen street food market during various times like weekdays and weekends and also opening and closing times in order to document changes in routines, interactions and atmosphere. These observations were recorded through detailed field notes and reflexive notebooks. Additionally, semi structured interviews with Reffen's manager, employees and owner were audio recorded for further analysis. These interviews gave detailed information about the organization's internal operations, principles and challenges. To obtain a thorough understanding of the context whole data including field notes, reflective journals and interviews, transcripts were read and reviewed several times. Through this method we were able to identify emerging patterns and themes related to vendor interactions, organizational producers, internal operations, values and challenges. These were recorded for coding and further analysis using practice theory as a framework. Thus, as part of the data analysis process, the researchers collaboratively reviewed and read the entire dataset multiple times to familiarize themselves with its content. With the help of this process, they identified and highlighted key points and relevant findings according to the needs and demands of the research.

Generating initial codes

The second phase begins once researchers have read and familiarized themselves with the data, having ideas about what is in the data and what is interesting about them (Braun & Clarke, 2006). This phase involves the initial production of codes from the data, a theorizing activity that requires the researchers to keep revisiting the data. It is necessary to create initial coding that will represent the meanings or the patterns that have been observed in the data. Qualitative coding is a process of reflection and a way of interacting with and thinking about the data after reading (Savage, 2000). Coding allows the researcher to simplify and focus on specific characteristics of the data. The researcher may have a 'codebook' to keep track of all the initial codes that have been made. The author suggested reading through the data and classifying the passages that the researcher find interesting and apply code to them. (Braun & Clarke, 2006 suggest that *"Excerpts that represent the same meaning should have the same code applied"*).



Pic: Initial Coding

In this study, after completing the familiarization phase, the process of generating initial codes began based on our field notes, interview transcripts, and observational data collected from Reffen. Reading all the data in this study researchers develop a clear understanding of its contents then researcher developed a code manual that included detailed definitions and exemplary text and then tried to apply those codes to the important and relevant sections of the data. The process of generating initial codes began based on our field notes, interview transcripts, and observational data collected from Reffen. The credibility of analysis was further enhanced by having two researchers analyze each data set. Both members of the research team worked systematically through entire data sets, giving full and equal attention to each data item. Individual extracts of data were coded in as many different themes as they fit and as many times as deemed relevant. Weekly research meetings were held throughout the coding process to help each other and examine how our thoughts and ideas were evolving as in this study engaged more deeply with the data grounded in both the empirical material and our theoretical lens.

Searching for themes

The third phase begins when all data have been initially coded and collated, and a list of the different codes identified across the data set has been developed. This phase involves sorting and collating all the potentially relevant coded data extracts into themes (Braun & Clarke, 2006). According to Vaismoradi, (2013) “A theme is an abstract entity that brings meaning and identity to a recurrent experience and its variant manifestations. As such, a theme captures and unifies the nature or basis of the experience into a meaningful whole” (p. 362)

In this research, after development of initial codes, both of the researchers systematically sorted and reviewed all coded data extracts collected from observations, field notes, and interviews at Reffen. These codes were then grouped together based on shared meanings or patterns, allowing us to construct preliminary themes that aligned with our theoretical framework of practice theory. The development of each theme involved relevant quotes and examples from the data set that represented actions, interactions and organizational procedures within the market. Both researchers work together to refine and define the boundaries and essence of each theme in order to ensure that each theme was cohesive, meaningful and analytically useful to the research objective.

Reviewing themes

The fourth phase begins once a set of themes has been devised, and they now require refinement (Braun & Clarke, 2006). During this phase, researchers review the coded data extracts for each theme to consider whether they appear to form a coherent pattern. The validity of individual themes will be considered to determine whether the themes accurately reflect the meanings evident in the data set as a whole (Braun & Clarke, 2006). The researcher may insert a new code if they find any issue in the text that isn't addressed by an existing one. A code may be removed if the researcher discovered no need for it or if it significantly overlaps with other codes. (King, 2004).

In this study, during this phase, both researchers reviewed the coded data extracts for every subtheme to see if there was a coherent pattern. Researchers also exclude and alter some themes depending on the data's availability because sometimes researchers discover that there is not enough data to support particular themes. This process was conducted collaboratively through frequent team meetings where we critically examined the structure and coherence of each theme regarding our research focus on practices at Reffen. The aim was to make each theme both data driven and analytically meaningful within the theoretical framework.

Naming themes

During the fifth phase, researchers determine what aspect of the data each theme captures and identify what is of interest about them and why (Braun & Clarke, 2006). For each individual theme, researchers need to conduct and write a detailed analysis, identifying the story that each theme tells (Braun & Clarke, 2006). Braun and Clarke suggested that theme names need to be punchy and immediately give the reader a sense of what the theme is about.

In the fifth stage of this study researchers wrote detailed analyses for each theme determining the story each one conveyed and how each theme was linked to the entire data set in light of the research aim. and all the themes were discussed in team meetings. Finally, both researchers revisited the names of all themes with the intent to ensure that the words of participants were used accordingly and in the right

way. Final theme names were selected to be both theoretically informed and accessible, providing a strong foundation for the presentation of findings.

Producing a report

The final phase begins once the researcher has fully established the themes and is ready to begin the final analysis and write-up of the report (Braun & Clarke, 2006). The write-up of a thematic analysis should provide a concise, coherent, logical, non-repetitive, and interesting account of the data within and across themes (Braun & Clarke, 2006). Additionally, the author recommended that the final analysis should tell a whole story about what the different themes reveal about the subject.

In this study, the researchers finished naming all the themes and were ready to start the final analysis and write a report. Once the final themes were established, researchers started the process of writing up the reports. The final themes were presented and discussed thoroughly in the discussion section, where researchers explored their implications, interconnectedness, and relevance to existing literature. Thus, the goal of the final write-up was to tell a cohesive story about the practices and experiences observed in the field, offering both theoretical and practical contributions grounded in the voices and perspectives of our participants.

CHAPTER 4 - Analysis

4.1 Introduction

Practice theory is increasingly applied in the domain of sustainability research because it allows consumption to be analyzed as a social phenomenon (Corsini et al., 2019). This study approaches the transition towards the CE in everyday practices of Reffen vendors. Gregson et al. (2015) have pointed out, in their research concerning the CE and resource recovery in the EU, that a CE is a moral economy, since there are right and wrong ways to circulate materials. Thus, this chapter aims to demonstrate the analysis from the data collected from street food vendors, how the Vendors practice everyday support or

challenge Reffen's promoting themselves of being sustainable or circular space. Practice theory is considered as a primary lens to explore and analyze vendors routines and interactions. The analysis is structured in three sections by highlighting connections between the three frameworks of Practice theory meanings, competences, and materialities as it helps to analyze the social-material aspects and understanding the transition to the CE level of everyday practice of Reffens vendors.

The analysis is structured in three sections and through the thematic analysis ten themes have been created from the collected data. The first section of analysis outlines Materials, framework from Practice theory, section two demonstrates Meanings and Section three states Competences. However, several themes outlined in the study not only directly relate to one dimension but also interconnects practice theory core elements. As vendors, behaviors or practice cannot be understood in isolated form such as just as material, competencies and meanings straightforward. For instance, Vendors' Practices and Management Towards Waste Sorting lies in section one under Material. But the theme lies under all three dimensions such as vendors engagement with materials like storage, containers, garbage bins lie under physical handling and the vendors practice lies on competences such as knowledge towards sorting, and the vendors ethical values, commitment towards circularity and sustainability, social expectation from Reffen management and market environment lies under meaning. Therefore, the Section is divided according to the Heading of the theme, but all the necessary dimensions of practice theory have been thoroughly discussed and analyzed as per the requirements and regulation to analyze the Reffen's vendors everyday life practice if it in line with the market claim of being Sustainable and Circular. Similarly, some of the themes like waste management, oil reuse or disposal demonstrate infrastructures and regulations (Material), learned routines,(Competences), and value motivation (meaning) combines in analyzing vendor's everyday practice. Hence, outlining this overlap is essential to understand and analyze vendors' performance towards circular economy principles in their daily operations. Thus, this theme demonstrates vendors' ways of engaging and interacting in everyday practice towards sustainable initiatives and circular economic ideas through practice theory dimensions.

4.2 Section One: Material

4.2.1 Vendors' Practices and Management Towards Waste Sorting

In recent years, food has been wasted because of the movement and transport restrictions due to COVID-19 pandemic (United Nations Food and Agriculture Organization, 2020). Malettez et al., (2018) mentioned that food waste separation is very essential for advancing a circular economy. The authors also emphasize that infrastructure and awareness are essential for effective food waste separation in circular economy strategies. Separating organic waste at source can improve efficiency of recycling and composting systems.

Like in this research while reffen has proper infrastructure to waste sorting like separate bins for plastics, metals, food waste, oil) but the actual practices are different among vendors. Many Vendors use separate bins for food waste, plastics, and general waste in their stalls . However, most of the vendors mentioned about the lack of space at their stalls has become a barrier to sorting waste accordingly. Which is also mentioned by , Kirchherr et al., (2017) that there are many barriers that CE adoption often faces like lack of a proper infrastructure for waste separation and higher price of sustainable materials, which may disproportionality impact small scale street food market vendors

“we sorted out the waste and we have a for example boxes just for a cans and bottles”(semo)

Cheesy dreams : “we have two bins like one is like daily waste and one is plastic OK”(Cheesy dreams)

“we have a bio. We have a. Plastic 1 separately and then of course cans because we have some cans here, like coconut and stuff. So that's also separate.”(Holy Krapow)

Indian bites : “Due to lack of space we can't do in that way”

“we have so little space it's difficult to have the full everything in like sorted out” (Cheesy dreams)

“we are not separating here because it's so hard because it's a small here”(Crepes la cart)

But they do separation accordingly end of the day they mentioned like

“when we finished the day, we are taken to the containers behind the Reffen and we have the container for plastic the plastic container for glasses and we separate”. (Crepes la cart)

“we try to separate for example the stems from the fruit and we separate them from the plastic from paper but because when it's Rush hours when we have sometimes maybe we confuse paper and plastic” (Buono)

At reffen sorting system exist but from the data it shows that it lacks the monitoring from the management of reffen to see who is doing or who is not like a vendor says

“We have bins for different materials but it depends upon the person using them”(The Canadian food shacks)

Our whole data shows that most of the vendors generally agree that they should sort waste accordingly, but they find it difficult to implement it in their day-to-day practices. Due to various challenges like rush hours and lack of space etc. Although almost all the vendors mentioned that food waste is sorted at their stall whereas other materials like glass, cans and plastic are sorted later usually at the end of the day while throwing trash in the big container.

However, our field work like photographs and field notes present a contrasting picture. For example, this photograph (Figure 2) which is taken by author at around 21:00 clock half an hour after reffen's official closing time shows that they did not even use the food waste (bio) bin in the waste sorting area. It directly contradicts reffen vendors claim that the food waste is regularly sorted, it raises a question and also a point of concern regarding the real implementation of these practices at reffen.



Pic: Main Food Waste Bin (Observation time 9:00 p.m)

Moreover, the next picture which is taken from inside the stall shows that vendors put every waste in a single bin as it is clearly seen from picture (Figure 3) taken by author that paper, plastic and food in one bin.



Figure 1 all waste in single bin (food, paper)

Majority stalls have one or two bins for sorting waste accordingly but in practice these are often used for general waste which further undermines their claimed sorting behaviors .

Finally, this inconsistency reflects what Geissdoerfer et al. (2017) describes as a "partial circularity trap", where some elements of the circular model (like infrastructure) exist, but behaviors don't fully align due to practical challenges like limited space, rush hours, and lack of monitoring. During the field visit it was also noticed that while reffen provides waste sorting infrastructure to its vendors, but it does not actively check or monitor the proper and correct usage of that infrastructure. Instead, reffen basically more rely on personal responsibility of vendors to sort waste correctly. This decentralized and individual approach may reduce the overall effectiveness of circularity as studies by Mrrey et al.(2017) also shows that a proper mandatory system together with incentives is the best way to achieve circularity at organizational level.

Finally, from data, observations and field notes it clearly proves that vendors do not follow the circularity principles in their waste sorting strategies. Moreover, here (materials) infrastructure like waste sorting bins and space played a very important role for proper waste sorting. But reffen only basic infrastructure like sorting bins and lack of space inside the stall and rush hours often interrupt waste sorting practices. This illustrates that how material arrangements and physical limitations can disturb the “normalization” of circularity practices as mentioned by practice theory. Furthermore, waste sorting practices are carried out by vendors meaning their own personal commitment to environmental values rather than any incentives or a proper system by reffen.

To foster consistent waste sorting, interventions must go beyond infrastructure and emphasize the development of competence and meaning making among vendors. Normalizing sorting as a professional standard can support the integration of this practice into the vendors’ operational routine.

4.2.2 Vendor Strategies and Management to Avoid Food Waste

According to Smil (2004) food waste occurs at every stage of the supply chain and may depend on specific factors in a given country such as economic and climatic conditions, production systems and infrastructure, the market and consumption trends. According to Zorpas et al., (2021) proper waste management is crucial for the tourism sector's shift towards a CE and supporting practices like reuse, recycling and waste prevention. They also emphasize the importance of stakeholder participation in order to implement sustainable practices that improve overall industry sustainability and reduce the environmental impact. Moreover, the study by Camilleri et al., (2021) investigates that how tourism cities can improve sustainability by implementing circular economy principles into food production and consumption. It also highlights the importance of stakeholder collaboration and regulatory support to promote the use of CE strategies in Urban tourism context.

Food waste is also an effect of people's excessive consumption vs how much is actually necessary. Moreover, According to FAO (2011) food waste also adds to the environmental burden by wasting energy, water, and land resources and producing unnecessary greenhouse gas emissions during the production, processing, and transportation of food that is eventually not used. As a result, food waste management has emerged as a key priority, referring to any action taken to prevent, lessen, or recycle waste at every stage of the production and consumption process (Papargyropoulou et al., 2016).

In this study avoiding food waste has become the strongest and most effective CE practice among reffen vendors. As they effectively use material (spreadsheets, storage fridge) to avoid food waste and show high level of competence (menu planning ,repurposing their ingredients and portion control) and their regular practices also show that how they embedded the meaning of sustainability (economic efficiency and environmental responsibility) in their day to day operations and showing a strong alignment with circular economy principles .This practice is an example of what Shove et al.(2012) refer to as “practice as performance” where everyday actions are shaped by an interplay of material ,competence and meanings .

In our collected data most of the vendors show their proactive strategies to reduce food waste through ingredients reuse and menu planning. Many vendors share detailed information like how they

intentionally design their menus that allow them to use their surplus ingredients across multiple dishes. That consequently reduces food waste and enhances operational efficiency.

In addition, many vendors use excel spread sheet to track their sales trends, and plan daily production accordingly. by looking at their previous data they can prepare correct quantity of food, that will reduce overproduction. These strategies show high level of practical competence and also shows that how technology integration helps street food market to achieve sustainability goals. The findings also highlight that for these vendors food waste reduction is not only environmental concern but also cost saving business practice embedded in their daily routine.

“ I reuse my meat, right? So when I have something like the poutine, the poutine normally is just fries Cheese and gravy. Then I add meat of the day. So when I have extra chicken or extra beef or extra something else. I use that right so we don't have any waste”. (The canadian food shack)

“That's very good on the reffen because there is 100% chance that you use everything...It's almost minimum. It's like sometimes because. The weather is not good or something. We throw away some carrots or something that goes bad in 2-3 days, but we tried that everything goes very well. Because you just use everything,” (Holy Krapow)

Then the beef and the chicken that I normally use is also for my sandwiches. So it goes to my chicken sandwich, and it goes to my beef sandwich. The leftover bread I also use for my meat plate. My meat plates is consistent with Almost a little bit of everything here, so it's also very minimum waste. (The canadian food shack)

“have daily a schema an excel page where I wrote all the stuff that they used during the week so I know how to calculate in advance how much I have to prep and how much I have so actually I don't have a really food waste”(semo)

“I can tell you I've almost 0 waste on the on the pizzeria (semo)

“it's good for business it's good for the environment”(cheesy dreams)

Creative use of ingredients and can also helpful to reduce food waste like cheesy dreams achieve zero waste from their main ingredient by creatively use preparing prepare mac and cheese dishes with leftover cheese. Like She explained that

“that we use on here it has an edible arrangement that you can eat the outside and the whole concept is that this cheese is grilled and then change so should you melted and then when you come down to the bottom pieces. Ya! the cheese is too small to do these shapes but then we grate it up like these bits when they're like 2cm we grate it and then we use the grated cheese to make our pasta dish to make mac & cheese!.. so there's absolutely no waste in the cheese.”(cheesy dreams)

Some vendors also told that their previous experience in food industry played a crucial role to reduce food waste like

Indian Bites: “We have a five-year experience now. We don't do too much food waste”.

Finally, reducing food waste in the street food market requires efficient vendor management and strategies. By implementing various types of practices like forecasting portion control flexible menus, proper storage technique, street food vendors can significantly reduce food waste. Moreover, working together with the local suppliers and training employees on waste minimization are also very important to avoid food waste. Adopting sustainability not only benefits the environment but also enhances tourist experiences and vendor profitability.

4.2.3 Management of Oil Reuse and Disposal

Management of used cooking oil adopting Circular Economic model is one of the effective ways in hospitality industry. The circular economy(CE) is a new sustainability paradigm, which helps organization move towards a more sustainable and circular economic model that enhances the valuable opportunities for the organization (Maia, 2024). Management of used cooking oil is considered an important aspect of CE which considers waste as a resource and transforms into biodiesel (Maia, 2024). Street food vendors use large quantity of cooking oil, and the effective and efficient management of used oil is crucial to deduce environmental degradation (Karimi, 2017). Through the framework of Circular economy managing the used cooking oil creates numerous economic and environmental benefits, such as the collected used oil can be filtered or converted to biofuel (Suryani, et al., 2024). The used oil management through circular model not only reduces environmental pollution through effective waste minimization but also enhances the bio-fuel production through public awareness and technological

advancement (Suryani, et al., 2024). On large scale levels around the European countries, the used cooking oil is used as an environmentally friendly renewable fuel that enhances the economic value and shifts the perception of waste to a high value commodity (Suryani, et al., 2024).

Among the European countries Denmark utilizes most biomethane into the gas grid and the Nordic country has 200 biogas plants. Danish biogas model aims to optimize resources efficiency, guarantee proper waste management (Salón del Gas Renovable. 2021). This outlines the effective oil management or disposal of Reffen vendors practices helps initiating the CE models. Denmark biofuel production integrates the circular economy initiatives to reduce environmental and achieve renewable target. This outlines that Reffen vendors appropriate oil collection and disposal initiative helps in participating in Circular model where waste can be converted into valuable resources. Thus, to integrate the circular economy principles into practice regarding cooking oil vendors must strictly collect and dispose used cooking oil appropriately.

Vendors practices should not just be shaped by infrastructural or technical means but also their knowledge, understanding and values towards the oil disposal, recycling and reusing to align with the CE model.

Thus, studying the vendors practices towards handling the cooking oil can assess to which extent the vendors practices align or challenge the market sustainable or circular objectives. Effective disposable or reuse practices of vendors at Reffen and efficient management of Reffen can in line with the CE principles.

Moreover, within the three elements of Practice theory this theme is connected with Material. Therefore, places in the section of materials. However, knowledge regarding disposal or reuse of oil properly lies under Competences and Vendors reflection towards environment and economic implications of oil use lies under Meanings.

(According to Cheesy Dream and Hyggge,) “Actually put this one we have a filter, this one it's my special machine that develop into rinsing the oil so every day we filter the oil”. “the filter is expensive it was like 25,000 but it it it cuts off the use of oil so you save in the long run”.

“we have a company that comes, so they come, we make a deal with them, they come and pick up the oil, then they recycle it to their own purpose”. (The Canadian foods shacks and smash bros)

This practice of vendors also reflects Shove et al., (2012) “practice-as-performance” where everyday actions are shaped by interplay of material (the oil filter), competencies (knowledge of oil preservation), and meaning (economic saving and sustainability). The vendors of *Cheesy Dream* use advanced material steps such as the use of a specialized oil filtration machine to extend oil usability and their oil management routine. The vendors invested (approximately 25000 dkk) to emphasize its long-term economic and environmental benefits through reduce oil consumption. The vendors practice goes beyond simple waste reduction and practice as a habit but embody conscious integration of sustainable technologies into daily food preparation routine. The vendors have potential material, knowledge about oil preservation and reuse and vision for long-term saving which reflects all three dimensions of practice theory in her everyday work life.

Furthermore, Applying the framework of Shove et al., (2012) Practice Theory to oil management through the Material, competences, and meaning. Under material other vendors use simple setups like using shared infrastructure placed by Reffen, a common oil tanker for used oil, or waste oil collection, or using spray oil or simple storage buckets. For instance, the owner of Canadian food shacks and smash bros mentioned the basic bucket to store waste used oil and a company come to collect a material performance.

According to the observation and field visit and the bucket respondent are mentioning in their interview, the oil tanker (Material) provided by Reffen's management in their waste sorting area has been captured and presented below.



Pic: Oil tanker at Reffens ("Photograph taken by author")

While the Vendors practices are not only shaped by the infrastructure's means but also their understanding of sustainability or circularity. Under Competencies the knowledge carrying out these practices differs among vendors, some owners demonstrate strong understanding of reuse and disposal, and some suggest knowledge gap towards the circular principal. Though vendors participate in waste oil collection, several vendors demonstrated limited awareness of what happened to the oil after disposal or what its purpose is to dispose the oil effectively. Which reflects the disconnect between the vendor's practice. Also, the vendors who participate in oil filtrations and oil collection also lack effective or in-depth knowledge about the re-use of oil for other purposes. Lastly, under Meaning elements vendors reflect the values towards supporting circular economy principal idea and reusing the resources.

Similarly, some vendors identify sustainable oil use is part of their identity and business ethics, where some treat oil disposal as a routine task without deeper value. This reflects the uneven integration of three elements, how sustainability is uniformly practiced. Thus, this inconsistency among vendors challenges Reffen's narrative of being "circular". Highlighting and addressing these barriers by is essential to ensuring the circular economy practices in everyday vendors routines.

4.3 Section Two- Competencies

4.3.1 Understanding and Awareness Regarding Circularity Practices Among Reffen's Vendors

Understanding and awareness of circularity practices among vendors is crucial for implementing a sustainable system, especially at Reffen because this is street food market which is known for promoting sustainability and reuse in Copenhagen .According to Kirchherr et al. (2018) awareness is one of the crucial aspects of CE and lack of effective awareness leads barriers to implementing CE principles. Vendors must understand what CE means not just recycling, but also reducing waste, reusing materials etc. From the practice theory perspective, awareness and understanding about circularity is a competence dimension (shove.et al.,2012) where vendors should know how to act in a way that is good for environment.

Data shows a lot of differences in vendors' understanding of circular economy (CE) principles. Some of the vendors have strong conceptual knowledge about circular economy principles for example the participant Canadian food and Snacks as they reducing food waste through menu planning. And cheesy dreams who use a special oil filter machine that cleans out the food particles from oil and they can reuse it for several days instead of throwing it after every use.

"when I have something like the poutine, the poutine normally is just fries Cheese and gravy. Then I add meat of the day. So when I have extra chicken or extra beef or extra something else. I use that right so we don't have any waste". (The Canadian food Snacks)

“The leftover bread I also use for my meat plate” (Canadian food and Snacks)

“every day we filter the oil because when you do fries and stuff these little bits will come up... all these little bits they're lying in the bottom and then when you use the filter they go away.”(cheesy dreams)

“then the oil going to last maybe let's say 10 days.... normally maybe half”. (cheesy dreams)

However, Others like Argentina foods, crepes have very limited knowledge about circular economy. According to the data it shows that awareness doesn't come through any formal training since reffen does not providing any training to the vendors rather it comes from their personal values, professional experiences etc.

“I grew up here (Denmark) so these things come naturally. ” (cheesy dreams)

“I've been a chef for 25 years... you learn about sustainability. ” (The Canadian Food Shack)

But, from the interviews it shows that there are some vendors who know about circularity, and they also apply it in their daily practices as I discussed above. But on the other hand, observations and field work

show that vendors at reffen express positive attitude towards sustainability, but they often fail to implement circular economy principles in their day-to-day practices. This is exemplified by



(Figure 2) Throwing hard plastic (Pic: Clicked by author)

The way they handle plastic waste can be seen in (figure 1) picture taken by author. They are going to dispose of hard plastic products despite the long-term usability of hard plastic products like delivery crates (green boxes). These plastic boxes are designed to be useable over many years, but vendors throw away them because they don't aware they can be recycled and reused.

This is an example of a significant gap in competence, one of the main elements of practice theory by Shov, Pantzar, and Watson (2012) and other two are meaning and material. There is a lack of main practical element know how (competence) needed to identify different types of waste and implement suitable disposal and reuse strategies.

Moreover, another example is the disposal of used cooking oil. During the interview a vendor mentioned that “*burn oil is difficult to get rid of anyway so. It's a huge quantity of oil here..... It's a waste.*”(haquly manger) this shows that it is not possible to reuse oil here .However ,the other vendors (cheesy dreams) told that oil can be reused through filtration system and Canadian food shacks told that it be repurposed via collaboration with specialized companies who collect oil and convert it into biodiesel and other products .In some arrangements ,vendors can get biodegradable packaging or money in exchange that will create both economic and environmental values. Lack of these initiatives among many vendors at reffen again demonstrates a gap in competence. They have not received any training or assistance in building these competences, nor are they even aware that any alternative exists. This lack of skill and appropriate knowledge leads to missed chances to implement circularity practices in their daily operations.

This practice is an example of “incomplete practice as performance” according to practice theory. Where actions are performed in daily life, but they are not fully aligned with the intended form of practice due underdeveloped competence. Like vendors intend to act sustainably and materials (infrastructure, oil container,) available but due to lack of training and skills they are unable to build competences thus real performance does not meet the circularity principles.

Finally, some vendors know about circularity and its practices but due to lack of proper knowledge and skills the practice remains abstract. Therefore, reffen must support vendors to build competence through training and infrastructure support to thus allowing the complete integration of circular economy practices in their daily routine.

4.3.2 Structured Training and skills

Tomassini et al., (2024) highlighted that skill development and training are very important for implementing CE practices in tourism and hospitality industry. They contend that professionals need interdisciplinary competence to handle the complexity of the CE system effectively. According to Zorpas et al. education and training are very essential in helping the tourism industry's transition to a circular economy. It highlights that implementing CE strategies requires both structural and behavioral change among stakeholders that can be achievable through proper training initiatives. In street food market like in reffen which is a fast paced, and varied market, training becomes crucial for effectively implement CE principles since without training vendors might not have enough information or specific skill that is required to implement CE practices at reffen even if they want to implement but due to lack of a specific skill they could not manage to apply that .

Most of the participants of this research have stated that reffen does not provide any formal trainings regarding circular economy practices or sustainability to vendors who are working in different food stalls.

“No, we're independent. So they don't train us” (The Canadian Food Shack)

“The reffen didn't offer anything like any kind of education for this”. (Buono)

In our study other participants stated that no formal training was provided, instead they just send emails about sustainability guidelines and sometimes they say verbally to use environmentally friendly products.

“They send email that we told the rules regarding what we have to follow how we have to do”(SEMO)

“They told us, like try to use as much as possible biodegradable thing and we are doing. Yes, there is no compulsion. (indian bites)

“Just they let us know that we have to recycle some things” (buono).

The lack of structural training becomes a barrier to achieving a complete and effective CE model within reffen. As Baum (2007) also states that training is very essential in integrating sustainable practices in tourism operations. Moreover ,According to Murray,skene and Haynes (2017) training and skills are very important to understand waste management and sorting procedures which are essential in busy

environments like street food market. Similarly, (Pereira et al.,2020) also mentioned that structured training helps vendors to build competence as it teaches them various practical skills like how to sort waste accordingly and efficiently, how to design a menu to minimize food waste and how to choose a circular supplier.

According to Shove et al. (2012) competence in practice theory includes both embodied skills and know how needed to perform different practices - was decided by each vendor independently based on their cultural backgrounds or personal experiences rather than reffen's instructions or guidelines.

"I think it also has to do with the fact that I've been a chef for 25 years, right. And I've also taken care of other restaurants, So you learn about sustainability because that's also how you reduce your costs and things like that, right. So it's more about experience and knowledge."(The Canadian Food Shack)

"It's not a kind of training, it's just a day-to-day experience" (Indian bites)

"we're trying to manage with the teaching of people. We're trying to teach them how to work with the waste, what to separate try to show them the oil disposal and everything else"(Holy Krapow)

"I haven't been told anything how to do my kitchen. I think it really much relies on your own because we also are more self-employed".(cheesy dreams)

Then in this context at Reffen without a systematic training vendor's ability to implement circular economy practices remain uneven and fragmented which further undermine the reffens broader circularity objective.

Thus, reffen should provide structured training for their employees to support the transition of circular economy practices from discourse to daily practices. Moreover Lamers et al. (2017) also argues that sustainability competence in tourism must be actively developed especially through hands on experiences and structured training. Similarly, Moscardo (2011) urges that institutional mechanisms like training and onboarding should be used to promote circular economy practices rather than just relying on passive absorption.

4.3.3 Peer Learning

Peer Learning is one of the essential techniques in advancing CE principles in tourism Sectors. As Peer Learning encourages cooperative knowledge sharing, capacity building, and creativity among stakeholders (Kujala, et al., 2023). When examined through the lens of practice theory, which emphasizes the routinized behaviors and shared understandings that constitute social life, peer learning becomes a vehicle for the diffusion and normalization of sustainable practices. Effective stakeholders' engagement and peer learning plays an essential technique in advancing CE principles (Kujala, et al., 2023). CE aims to increase sustainability efforts through innovation and stakeholders' engagement, collaboration of vendors is a necessary condition for CE (Kujala, et al., 2023). Also, according to the CEnTOUR,(2021) project, potential stakeholders can boost the capacity to uptake sustainable and circular solutions through structured peer learning, training, and innovative collaboration. Overall, peer learning can enhance vendors capabilities, actions, mutual learning, adaptation towards emerging systems, promote and participate in long-term sustainable solutions and have a shared responsibility towards the destinations.

Drawing the Shove, et al., (2012), practice theory framework Peer learning lies under competencies. Lamers, (2017) outlines social practices are the key elements to focus on material, competencies and meanings. The understanding of behavior is rooted by studying social practices. And Practice-based research is valuable for outlining the social phenomena between doing and saying. The perspective of social practice helps to explore how vendors' sustainable behavior is practiced and shared. The study of Chimirri (2021) in Greenland states that importance of collaborative practice among tourism stakeholders which helps to create sustainable tourism experience and possibility of shared routine and mutual learning. Also, the study in Taiwan by Hung et al. (2023) reflects engagement, peer collaboration and learning by doing emphasizes behavior change aligned to circular economic principles. Thus, vendors collaboration, openness, experience sharing, collective problem solving and formal peer learning process can enhance to adopt circular practices.

According to Cheesey Dream and Hygge Owner , *“There are many nationalities out here and we have had all these like I tried to give guidance to people because it's not obvious to them.” “You know that the*

milk boxes the Arla milk box the green, sometimes you would find in the hard plastic trash can yeah where I'm like this is something it can be used for like 20 years you don't throw this out."

During the interview, Cheesy Dream and Hygge owner stated that the Arla Plastic boxes can last for more than 20 years, other vendors throw it after single use. Therefore, she tries to encourage other vendors to reuse the box for longer time and do not throw it after single use. This reflects that the vendor tries to share knowledge and promote resource efficiency, which aligns under competences of practice theory. These outlined practices are shaped by individual knowledge, experience and values. However, the researcher still could see those Arla plastic boxes in the Shared waste container of Reffen. The field picture is attached below.



Pic: Reffen Shared Hård Plast Container ("Photograph taken by author")

The vendor of Cheese dream has long term experience in food industry which shaped her value and knowledge towards re-use. This depicts that not only placing the material element the garbage bin is

enough to encourage the vendors, but the vendors' competencies (knowledge towards reuse through experience) and meaning (value attached to long term use) plays equally important role to practice through in Circular model. Similarly, the informal information provided by Cheese Dream vendors did not encourage other vendors to re-use the product. They still choose too through it out. Therefore, formal collaboration from stakeholders, structure peer- learning, problem sharing and each other collaboration is an effective way to implement circular practice in day-to-day operation.

4.3.4 Integration of CE by Reffen's vendors- Values and Past experiences

This theme aims to understand the Reffen's vendors values, cultural values and past experiences influence towards circular Practices. The study of Sairanen, et al., (2024), outlines that customers' perceived value are essential elements for implementation of effective circular economy practice. The study identifies ethical value, strategic adaptation, systematic value are crucial factors to study in the context of CE. Thus, the role of vendors past experience and their value towards CE can influence them to meet the expectations towards CE.

The practice of Circular Economy model through organizational values helps to examine and understand practices in more depth. As organizational values are an important ethical ground which helps to influence and adopt CE practice. These values integrate essential performance, innovations, structured orientation and constitute motivational goal (Barboza et al., 2021). The Study of Mosca et al. (2024) states that stakeholder's approach, participation, knowledge sharing and collaboration, is a core for sustainable impacts. Also, vendors or stakeholders social, cultural, and geographical contexts can have diverse perceptions of value, and their value and participation in a broad range of activities, from co-creating and sharing knowledge for implementing the circular economy. Moreover, the study by Sah, et al., (2025) explores that providing sustainable services creates both economic and environmental values. Consequently, these values collectively enhance their competitiveness and long-term reputation. Shove et al., (2012) outlines under competence's framework the knowledge gained from past experience is essential for sustaining effective practice. The stakeholder's effective engagement and performance to achieve environmental objectives, local authorities promoting and providing favorable measure or

infrastructure, and stakeholders past engagement or experience leads to improve performance towards achieving sustainable goals and following circular principles (Zorpas, et al., 2021). Thus, through the lens of practice theory understanding awareness, values derived from past experience practices among Reffen's vendors are crucial to analyzing sustainable behavior or circular models. And this theme is directly related to Meaning, as awareness and understanding are derived from past experience which reflects the value and meaning towards the sustainability or circularity practices.

Furthermore, Vendors must not understand CE means only reduce waste or use recyclable packaging. But under the competencies and Meaning dimensions it is essential for vendors to have knowledge and values regarding circularity how to act in a sustainable way. At Reffen's many vendors are from diverse cultural backgrounds and most of them have long term experience in kitchen, restaurant or food entrepreneurship which shapes their value, awareness and learning process to help them understand about sustainable behavior or circular practices. For instance, vendors past experience, cultural influence, awareness can shape them to see sustainability as a moral duty and performing circular model practices provides meaning to their actions. Also, past learning helps vendors with systematic change, enhance collective capacity and share responsibility in the destination. .

Thus, it is crucial to understand Reffens vendors' values, Cultural values and experiences to understand the circular practice operation at Reffen, how the intersection of vendors' cultural values and professional experience in the food industry shapes their everyday Circular practices. Many vendors at Reffen come from diverse cultural backgrounds that emphasize community. Vendors' previous experiences in kitchens, restaurants, food entrepreneurship not only influence their technical skills but help them to understand "sustainability" and Circularity. Vendors' diverse backgrounds in the food industry, shaped by personal ethics, professional training, economic constraints, and cultural identity help to explore the vendors' everyday practice towards circularity are not just monolithic but constructed through a plurality.

After the field, visit at Reffen's street food market and interviewed several vendors. vendors suggest a Performance gap between Reffen's stated ambitions and vendors' operation, experiences and practices. For example: Cheesey Dream, a vendor born and raised in Denmark, noted that her sustainability values are culturally ingrained. But Reffen management has not instructed or guided or trained toward specific

CE practices. Similarly, Other owner of Reffens Vendor, Semo, the canadian foods snacks and smash bros burger Stated same gap as like owner of Cheesy Dream and Hygge. A vendor from Semo originally from Italy, and the owner of the Canadian food's snacks and smash bros burger origin from Denmark their regular practice is due to their long-term personal experience in the restaurant industry

"I grew up here(Denmark) so these things come naturally." "I have been chef for many years" (cheesy dreams & Hygge).

"Reffen don't tell us to do anything, Maybe they have a profile that's says so, but I haven't been told anything how to do my kitchen. I think it really much relies on your own because we also are more self-employed." (cheesy dreams & Hygge)

"I've been a chef for 25 years... you learn about sustainability." (The Canadian Food Shack)

"I had a restaurant in Copenhagen since 2011 " (Everest Nepesele Food)

According to SEMO, "I am Italian, i came from Rome."

"I think because we have also restaurant in town called bell and we actually have two."

"we are good in Italy but for example we're not too good, I see a lot of these food market that very similar in Europe".

"if it's something that I know because I'm in this industry, my first four years here and then like I work with the claus Myers and Myers company"

The findings in this study outlined the Performance gap. The vendors lack in-depth values and awareness. Those vendors who behave in a certain way or sustainable way, knowledge that they have, or their practices are structured through social norms and past experience but not through critical thinking or structural learning process. Vendors express positive attitudes towards sustainability and circularity and some actions are performed in daily life, but they are not fully aligned with the intended form of practice due to underdeveloped competence and Meanings. Moreover, Reffen highly promotes its identity as a sustainable and circular market. However, they have not fully instructed, guided or trained vendors

towards specific CE practices, the actual implementation of these values is often left to individual interpretation (*Highlighted by Cheesy Dream*).

Thus, from a practice theory perspective, this gap highlights how circular practices are not simply adopted through policy but are shaped by vendors' own competences, meanings, cultural values, and experiences. The absence of standardized guidance can be analyzed through interview and field visit. Therefore, Reffen must support vendors to build competence through training, formal peer learning allowing the complete integration of circular economy practices in their daily routine. Without structured onboarding, training, or performance metrics, CE remains an abstract ideal rather than an operational norm. Thus, the finding depicts the performance gap in vendors' actions. Therefore, to truly function Circular Economy model Reffen must train, monitor and actively support vendors

4.4 Section Three- Meaning

4.4.1 Awareness and management regarding Energy Sources

Energy is considered as an important factor in the implementation of Circular economic principles. Sustainable consumption or utilization of Energy leads to decrease the environmental damage (Geissdoerfer et al., 2017). The study of Geissdoerfer et al. (2017), outlines clean energy adoption is a significant component to emphasize Circular economy. Similarly, Circular Economy is stated as a regenerative system in which resource input and waste, emission, and energy leakage are minimized by slowing, closing, and narrowing material and energy loops, facilitating closed-loop systems in cycles of production and consumption, the switch to renewable energy sources is consistent with CE policies.

For Reffen to truly function as a circular economy space, all three elements must be aligned. For instance, vendors must not only have access to energy-efficient infrastructure (material) but also understand how

and why to use it (competence) and believe in the collective value of energy reduction (meaning). The routinized behaviors and material arrangements of everyday life of Reffen's vendors how energy is sourced, managed, and perceived is essential to examine whether Reffen's operational model genuinely implement the principles of circular economy or whether contradictions exist between rhetoric and practice.

Data collected from 12 vendors states a clear gap in Reffen performance, promotion and vendors awareness. Almost all vendors stated that they are not aware regarding the Energy source they do not know where the electricity comes from. Vendors of Buono also mentioned the power shortage. This reflects their lack in line with all three elements of practice theory material, competencies and meaning. On the other hand, observation data revealed that some vendors use wood for cooking meat. When the vendor was asked about the wood fire cooking, whether it was sustainable initiative or culinary requirements. The vendor was unable to answer. This reflects the practice might be driven by habit, culinary convenience rather than commitment to sustainability. However, intentionally or unknowingly using wood is a sustainable source that contributes to energy preservation by reducing fossil fuels. This also highlights a gap between vendors' awareness towards energy sources and sustainable impacts of their everyday practice.

(According to the Cheesy dreams and hygge), "I have no idea. they have like because all the electricity goes here via reffen and then I get a monthly bill but I have I cannot see my own measuring thing".

(Crepes), "Its's not solar not solar it's coming it's not organic. I think?"

(SEMO), "Honestly, I don't know."

(Buono), "the energy I don't know if they're doing much because sometimes the electricity stops working and I don't know why this happens."

Geissdoerfer et al., (2017) outlines stakeholders' engagement and awareness are crucial to follow circular economy practices. Thus, vendors energy consuming without being aware of the source, the vendors practices have not contributed to circular energy practices. Moreover, power shortage also outlines the challenge of market infrastructure. Thus, the study outlines the awareness gap between the reffen management transparency and the vendors engagement.

4.4.2 Reffen's Vendors symbols (e.g., signs, language,) in practice

Vendors symbols such as sign , language, and menu bord plays an important role in communicating with customers. Several practices such as recyclable material sign, waste reduction, eco-friendly packaging, and eco-friendly branding can convey commitment to sustainable market orientation which can influence consumer perception and behavior as well as can align with the market branding to meet the expectation of environment conscious consumers (Mitchell, et al., 2010). Similarly, symbolic representations influence people evaluation, communicate the issue, strength and promote sustainable tourism, and meaningful symbols increase awareness and promote behavioral change among the customers (Bausch, et al., 2021).

Through the practice theory perspective symbolic actions contribute to sustainable behavior which can embrace daily operation (Lamers, et al., 2017). By making sustainability symbols visible vendors can differentiate themselves in the market and participate in circular tourism practice and enhance the tourist awareness. Within the Practice theory framework, Vendors symbols such as sign, branding and linguistic lie under Meaning element of Practice. The symbolic expression of branding such as zero waste, plant based, locally sourced, expresses the understanding, norms and values of Reffen vendor. On the other hand, those sign bord (Physical bord) comes under materials.

According to the owner of chatpata, "they asked me to change these plastic menus downstairs. So, they wanted some sustainable material." "Like the menus I put on down. If you see those are the plastic ones,

they don't want it. So yeah, so they want it like it should be wooden material and something that can be recycled.”

“before they are very strict about not to put the photos, and we always put the food display real food display”(Everest Nepalese Food)

“we haven't done anything like as you can see something we're putting up signs and figure out things like this”” Reffen don't tell us to do anything” (Cheesy dreams and Hygge)

“be we can reuse your old containers if this is the case is a very good idea but besides that nothing is really new and modern and super ecologically here is whatever you expect”. “I don't think they have any specific rules”. (Buono)

Through the interview Vendor of Chat Pata and Everest food stated the Reffen restricts the material like plastic menu board and the picture menu which reflects Reffen management is more focused on the material symbolic. Similarly, Reffen strong emphasis on reuse as its structure are made from recycled materials and permanent stalls are old containers which could no longer be used for shipping. There are more than 75 shipping containers, old German fire truck, several worn out vans as a main building block of Reffen (Reffen, 2025). However, they lack structural guidelines and promotion to the vendors regarding competencies and meaning. During the field visit no visible signs, boards or sustainable or circular branding communicated to the visitors could be noticed, which reflects the practice or symbolic layout remaining invisible or missing to the customers.



Pic: Sign & Symbol (Reffen, 2025)

This represented the absence of symbolic representation and value of practice is not communicated to the customers though the Reffen management claims to be the sustainable and circular market. This represents that the Reffen claiming of being Circular or Sustainable exist in isolated forms and are not symbolically reinforced across the market. The lack of symbolic meaning reduces the visibility and coherence of sustainable and circular spaces (Shove et al. 2012). Also, Bausch et al., (2021), outlines

insufficient symbolic representation is a major challenge in sustainable tourism which creates gap between sustainable practice and tourists' awareness. Thus, this states the gap between sustainable practice and symbolic communication signifying both tourist education and branding practice.

4.5 Summary of Analysis

Despite Reffen's brand identity around sustainability and circular economy, the findings suggest that much of the circular economy practices are vendor-driven rather than system-driven. Lack of training, and awareness about energy sources, inconsistent waste management, lack of peer learning and individually improvised food waste strategies imply that the market's sustainability vision is fragmented.

By Applying practice theory, it becomes evident that Reffen's move towards a circular economy is not simply a matter of individual intention or technical provision. It is a matter of how meanings (values about sustainability), competences (skills and know-how), and materials (infrastructure and resources) are dynamically configured. Despite Reffen's public image as a sustainable and circular street food market, our data shows that most of the vendor's practices are fragmented and mostly rely on individual vendor initiatives rather than systematic support.

Reffen has a infrastructure like sorting bins, oil disposal system but it is not fully utilized due to some issues like lack of stall space, inconsistent use and lack of monitoring. Oil reuse and waste sorting practices by reffen vendors show a gap between the availability of infrastructure and its actual use. Moreover, some vendors demonstrate strong skills in oil filtering, food reuse and menu planning that they often derived from their personal and professional experiences. On the other hand, many also lack formal training which leads to uneven implementation of CE practices. Furthermore, sustainability is often individually valued by vendors but there are no or very limited symbolic and communicative components like (branding, signage and awareness of energy sourcing). This disconnection between internal beliefs and external expression undermine the consistency of reffen's sustainability claims.

Finally, in order to completely implement CE principles, Reffen needs to invest in vendors training, implement clear guidelines and strengthen its infrastructure support to make sustainable practices as standard rather than exception.

CHAPTER 5 - Summary & Conclusion

5.1 Discussion

To support our research, we use closely related literature while it's not directly addressing street food markets, but it offers useful theoretical and practical insights for our research. For example, Munir (2022) conducted research about Sustainable food waste management strategies by applying practice theory in hospitality and food services-a systematic literature review. Similarly, the research by Soren & Baerenholdt (2020) about Tourist practices in the circular economy contributing a comprehensive understanding of how circularity might be integrated into tourism related industries. Moreover, Camilleri (2021) researched regarding Sustainable production and consumption of food. Mise-en-place circular economy policies and waste management practices in tourism cities. While her research focuses on tourism, it offers useful models for the food system, especially those related to street food. Furthermore, the research by Vignola & Oosterveer (2022) explored environmental sustainability in street food systems in the urbanizing Global South and using a social practice perspective. Despite having different geographical contexts their work is useful for us to understand how informal food vendors interact with sustainability.

Motivated by these studies, our research aims to fill a clear theoretical and empirical gap by examining street food vendors and their interaction with circular economy practices. Our study *“Street food and sustainability exploring circular economy practices in street food market -Case study of Reffen Copenhagen”* specifically investigates whether and how street food vendors implement sustainability and circular economy principles in their day-to-day operations.

This research was conducted with the primary aim of exploring how the practices of reffen street food vendors support or challenge the markets claim of being the sustainable circular economy space? To achieve this, the study employed practice theory as a conceptual framework, which allows for socially embedded analysis of sustainability by focusing on the interplay between material, competence and meanings. A qualitative research approach was adopted mainly on the collection of primary data through 12 semi structured interviews with vendors operating in reffen's street food market. This was complemented by field observations, photographic documentation, field notes and informal interviews that provide rich and through ethnographic insights into the vendors' everyday routines. The data was analyzed using thematic analysis (Braun & Clarke, 2006) which enabled the identification of key themes that reflect vendors understanding and implementation of circular economy principles. The themes emerged around several core areas like vendor awareness and perception of circularity, waste management and waste sorting practices infrastructure and energy use, peer learning and knowledge sharing and vendors value past experience towards circular economy and reuse strategies for example repurposing of cooking oil. This study critically examined vendors day-to-day practices in relation to circular economic principles, including aspects such as the use of biodegradable material engagement with the recycling system sourcing of ingredients and energy consumption.

This chapter will critically analyze all three elements of practice theory material, competence and meaning and know how these elements interact within vendors daily routine. The findings, observations and fields notes are evaluated with the help of existing research on street food sustainability, circular economy and urban tourism. Because there is a lack of direct studies related to street food vendors and circular economic practices, this research addresses a significant theoretical and empirical gap. Most of the existing literature explores circular economy in fields like infrastructure, manufacturing or just tourism with little focus on informal food sector like street food markets (Sciacca,2020; Kang et al.,2021). Thus, to support our study and make a comparative foundation we take closely related studies as described in our literature review above. Promotional materials and websites suggest that reffen functions as a model of urban circularity and zero waste principles composting system and local sourcing and eco-friendly packaging. However, our findings raise a critical question about the extent to which these ideals are consistently practiced at the vendor levels at reffen.

By applying practice theory with observations and also the qualitative data and field work we examine whether practices support reffen's circular economy model or whether they challenge and potentially undermine these claims. This comparative analysis not only reveals the disconnection between marketing narrative and on the ground realities but also provides insights into the structural and behavioral conditions necessary for circular economy adoptions in semi formal food environments like reffen.

Practice theory and circularity

Material

The presence of several types of material infrastructure, for example labeled waste bins, compost area with big containers, reusable utensils, was clearly seen at reffen. These are aligned with the (circular economy principles that are promoted by the cities like Amsterdam and Copenhagen (circular economy, 2022). However, despite the presence of different bins for sorting waste (plastic, paper, food) observations and field notes like photographs showed a disconnection between the available infrastructure and its usage, for example, the empty organic waste bin after operating hours.

This phenomenon is similar to Geissdoerfer et al. (2017) who discussed the partial circularity trap in which infrastructure is present, but it fails to promote sustainable behavior because it lack training reinforcement and other practical feasibilities. Practice theory helps us to make sense of this gap by showing that materials alone are inadequate without the supporting competencies and meanings to guide their appropriate use.

Competence

During data collection and during interviews with the vendors we noticed that some vendors were aware of sustainability and their goals and then also show some support about circular practices, but they also mentioned practical challenges like limited stall space and rush hours etc. For example our field observations and notes shows that many vendors at Reffen were unable to sort waste within their stalls due to limited physical space to put multiple bins and pressure off rush hours .These operational challenges often led to the disposal of mixed waste in a single bin which is totally opposite of reffen's stated waste segregation guidelines. As discussed by one of the vendors during an interview, the high volume of customers during peak hours pretty frequently results in a lapse in proper sorting practices which highlight a gap between sustainability's intentions and actual behaviors.

From a practice theory perspective this is an example of a gap in competence. Where knowledge and skills are required to convert infrastructure into effective actions. Literature also confirms this barrier like the study by Kirchherr et al. (2017) argues that circular economy efforts often fail due to the lack of competency building among stakeholders especially in informal sectors like street food markets.

Meaning

The Meaning varies among all the vendors because some vendors associate sustainability with local sourcing and waste shortening. On the contrary, others give priority to customer service or their profits over the circular economy practices or sustainability. Reffen's branding always has a strong emphasis on sustainability, however vendor's practices and interpretations do not always reflect these principles. This supports the claims made by Shove et al. (2012) and Recwitz (2002) who argue that meanings are socially formed and influence whether or not practices persist. There seems to be a disconnect between the top-down narrative of circularity and the vendor's own value system who sometimes gives priority to efficiency over ecological responsibility.

The integration of circular economic principles within Reffen's street food market can be critically understood with the help of practice theory. According to Shove et al. (2012) practice theory highlights how actions are shaped by the interaction of materials competence and meanings. Applying this in the street food context, vendor practices are influenced not only by the availability of infrastructure, for example labeled bins composting stations etc but also by their understanding and knowledge regarding circularity and the values that attach to them. Literature on CE often focuses on systematic transitions (Geissdoerfer et al., 2017). However, study by (Hobson and Lynch 2016) argues that without behavioral change at ground level these strategies may fall short. At Reffen all this circular economic infrastructure is clearly visible. The actual vendor behaviors vary a lot which is similar to the finding from Panilla et al., (2022) who stated that behavioral inconsistency is a key barrier to effective circular economy in food system. Thus, this study confirms that circular economy must be understood not only as a technical framework but as a social practice embedded in everyday intersection particularly in formal or semi formal context like street food markets.

Street food, sustainability and circular economy

According to the literature review street food has the potential to boost tourism and urban sustainability (Alferio et al., 2019). Reffen also set an example of this by integrating circular economy principle into its design and operations. However, according to our collected data this is totally different as the critique by Hobson and Launch 2016 this study shows that circular economy strategies depending too heavily on individual behavior without structural support are unlikely to succeed. While Reffen has made some efforts to provide some basic infrastructure to their vendors but the lack of training and skills and incentives limit the impact of these tools.

Waste management is another important factor to discuss as it has emerged as a critical area and assessing the practical implementation of circular economy principles at Reffen. According to the literature review effective circular economy strategies for organic waste includes anaerobic digestion and composting both are available at Reffen in collaboration with Copenhagen's municipal waste system. This system aims to convert food scraps into biogas and also showing the importance of integration urban infrastructure in supporting sustainable food system practices. However, despite the existence of this system at infrastructure level our empirical data and field observations find as that vendors behavior significantly undermines the effectiveness of these circular economy strategies. This finding is consistent with the work of Pannila et al., (2022) who observed that even in progressive markets like Reffen inconsistency's participation in waste sorting remains a potential challenge that can erode potential efficiency gains. During the interviews most of the vendors claimed that they have separate bins inside their stalls for sorting waste, for example for plastic cans and organic waste. They also reported that sorting waste at the end of the day particularly when disposing of it as central waste area provided by Reffen. However, our direct observations and field notes revealed a different reality in practice. Most vendors have only one or two bins in their stalls which were used for mixed waste disposal with no clear separations between food paper and plastic. Photographic evidence was captured during field visit. To further support this contradiction, for example one image taken inside vendor's stall (referenced in chapter 4) clearly show all types of waste organic food plastic and paper material disposed of in a single bin. This practice creates a mixed waste stream which as the literature suggests significantly complicates efforts to compost or recycle effectively (Geissdoerfer et al. (2017)). Additionally it was also noticed that some vendors discard hard plastic containers that could have been used multiple times contradict the reuse and waste minimization principle centered to circular economy.

Therefore, the findings depict that vendor behavior is a significant barrier to the full implementation of circular economy principles within street food market like reffen. Waste management particularly the waste sorting and lack of waste minimization practices shows a big challenge of embedding circular economy not just as a set of technical process but as a social practice that must be routinized and internalized by all stakeholders involved. Bridging this gap requires not only physical infrastructure but also structural training and incentives to align vendors' practices with Reffen's sustainability ambitions.

Tourism and cultural identity

From a tourist point of view Reffen provides an authentic and culturally diverse experience that enhances Copenhagen's reputation. Tourists are drawn to street foods' vibrancy and variety of street food, and the market also successfully takes advantage of the expanding trend of environmentally responsible tourism. However, according to the data the operational sustainability is less reliable compared to the public image. This supports the claim made by Hall and Mitchell (2018) that although street food increases cultural appeal, its sustainability needs to be carefully considered and critically assessed rather than assumed.

This study contributes to practice theory by applying it to a very new context a semi formal street food market in a European capital. It also confirms the fact that integration of circular economy principles in industry like semi formal street food markets depends not just on policy or infrastructure but on the alignment of materials, competency and meanings in day-to-day operation.

Summary of Discussion

Although reffen promotes itself as a sustainable and circular economy driven street food market and they also promote it on their websites and promotional materials, our qualitative data and field work observation and interviews reveal a more complex reality about this picture. While some vendors show a genuine knowledge about sustainability and about circular economy principles, but others struggle to integrate these principles in their daily operations. This inconsistency reflects a partial implementation of circular economy at the vendor level. Our findings suggest that while circular economy principles are clearly visible in reffen infrastructure, for example we can see the labeled waste bins, composting facilities and these resources are not always utilized as intended by vendors. Vendors mentioned various

types of structural challenges like limited stall space which restrict them to place a different means for different waste for example for cans paper plastic and they also mentioned about the operational pressure during the rush hours which often lead to the neglect of wizarding moreover there are significant variations in vendor's competency and values related to circularity some vendors uh have a strong conceptual knowledge about sustainability and they're also motivated to apply circular economy principles in their day-to-day operations while others lack even basic awareness so but the term circular economy is this disparity in knowledge skills and environmental values results in fragmented adoption of sustainable practices across the street food market by applying practice theory it helps to eliminate the interplay between all three factors or practice theory like material competency and meaning did this study demonstrate that sustainability cannot be addressed only as a technical or managerial challenge but must also be understood as a social practice that is embedded in everyday life. At Reffen this means that achieving the full circularity requires not only infrastructure and policy or regulations, but it needs to give proper training, engage and align vendors behavior with the overarching sustainability goals of the market.

5.2 Conclusion

The purpose of the study is to explore how CE is understood, practiced or challenged by Reffen's Vendor through the lens of Practice Theory. The research was motivated by the researcher's background, a person from South Asia, particularly Nepal and India, where street food not only contribute to the socio-economic sector but plays an essential role in everyday cultural practice and livelihood for many. However, despite its popularity, street food is often recognized as unhygienic, poorly managed, poor waste management, mostly run by uneducated. Where Reffen street food market in Copenhagen Denmark, claims to be one of the sustainable and circular street food markets. Being one of the largest street food markets in the region the researcher could notice significant gap very few research has been done taking the Reffen into consideration. Also, there has been very fewer research that has adopted practice theoretical lens to investigate sustainability and CE in daily practices.

Reffen is a colorful, fun and welcoming place where street food enthusiasts, artisans, music, exciting food from different cultures with good vibe and waterfront view. Normally, street food is considered as food served in stalls on busy streets or by the side of the road, where customers eat food by standing. However, Reffen is a new concept of street food which was established from dusty and neglected harborside lot, surrounded by run-down workshops and warehouses into vibrant beautiful street food with more than 40 stalls with the vision of sustainability and circularity. Reffen Street food management and vendors practices are motivated towards sustainability and circularity. If the researcher compares the practices of Reffen vendors with most developing countries' perspective, then it can be one of the pure examples of Street food concept.

As per the many studies studied in Asian perspective and being raised in Asian Country growing seeing the concept of street food Where many developing countries street food lack basic facilities or struggle with basic concept where even online pay or card payment is not possible to buy the food. Therefore, Reffen can be a leading example of the vendors knowledge or the material such as sorting bin available in the Street food. However, Due to the limited time frame this study has not compared the Market with Other Street food perspective. This study frame explore and analyze Street vendor practices as one of the most developed countries street food of the Western country, Denmark where government and stakeholders put a lot of effect towards sustainability and environment.

The study adopted Practice theory key elements material (infrastructure, tools, and resources available), Competences (Skills, knowledge and training), and Meaning (values, motivation, cultural context) to investigate how everyday practice of Reffen's Vendors align or conflict the market being sustainable and circular space. Through the combination of semi-structure interviews, informal conversation, field notes, direct observation, the researcher could identify several gaps between Reffen's management circular and sustainability narrative and the actual vendor's everyday practice. Some of the major findings are that none of the vendors sort their food waste in the stall, which is one of the critical components of Circular economy principles. The researcher not only noticed poor waste management inside the stall where only general bins were seen, with no separation of plastic, paper or organic food waste, but some vendors openly stated in the interview that they do not sort food waste. Similarly, the main food waste container of Reffen's appeared to be completely empty during the observation time. In terms of Practice theory

element Material, vendors reported insufficient infrastructure such as absent of structured waste sorting inside the stalls. Another significant gap is , the vendors lack transparency, awareness about energy use and lacks knowledge about where their energy comes from, which falls under competencies. As the energy source directly contradicts the ethos of sustainability and circularity. Similarly, the study outlined wide variation of vendor competencies regarding sustainability and circularity. Some vendors demonstrate good knowledge of sustainability and circularity, but the knowledge is not derived from formal training by Reffen but is driven by their personal values, long term past experience in food industry or cultural value. While Other vendors lack in depth knowledge of sustainability and circularity. The absence of structural mandatory training can limit the application of CE practices among the Reffen's vendor's everyday practice. Finally, within the dimension of meaning most of the vendors attachment towards sustainability and circularity was deeply linked to personal values, professional backgrounds and cultural values, others lacked clear motivation, understanding due to the absence of structural training from the Reffen's management. Thus, this disparity market branding as a sustainable and circular space may not be fully integrated into vendors day-to-day operations.

Reffen claiming for pioneer sustainable and circular economy food market, they must embrace structural mandatory formal training. Also, evolve and adapt growing landscape of sustainability and circularity such as urban venue, Tivoli Garden in Copenhagen has implemented deposit and return system reusable plastic cups by reducing single use waste. Similarly, platform like Keen Hub and loop.dk uses reusable, washable containers and utensils which reduce material waste and foster behavioral change and innovative circular model.

5.3 Limitations

This study outlines valuable insights into sustainability and circularity practices among Reffen vendors, and the following limitations are acknowledged.

- 1. High Vendor Turnover:** Every season there might be new, or rotation of vendors. So, the collected data reflects only the specific group of vendors during spring 2025. Therefore, seasonal comparison by interviewing more than 12 vendors to represent the wide range of vendors practices is recommended.
- 2. Short data collection period:** The Reffen market opened from March 20, 2025, and the project was due on June 2nd, 2025. Therefore, there was limited timeframe for field visits, observation and data collection. A longer timeframe would provide more in-depth analysis and could be assessed better and longer day-to-day practices of vendors.
- 3. Informal Interview Conditions:** The researcher has to visit Reffen before opening time and after closing time and request vendor for the interview. And some interviews took place in busy environments which might affect the vendor response. Thus, future interviews should aim for more formal and private interviews.
- 4. Lack of Management Perspective:** Despite several emails, and several visits to Reffen and requesting Reffen management manager, the team declined to participate in an interview due to time constraints. As many vendors mentioned, they have not heard anything from Reffen Management regarding circularity and sustainability or Reffen do not instruct vendors. Thus, including Reffen's management perspective could enhance the findings regarding their strategies and policies.

5.4 Suggestions and Recommendations

This research has found several inconsistencies between Reffen's promoting sustainability and circularity and the real practice of Reffen's Vendors everyday operations. Vendors good intentions, innovative ideas, strong support and efforts are needed to realize a truly circular economy in the market. Based on the finding several recommendations are proposed to improve the implementation of sustainability and circularity at Reffen's, which are stated below.

1. To adopt Reusable Deposit systems for Drinkware and Cutlery

A reusable deposit system is one of the essential circular waste reduction models where drinkware like cups, mugs and glasses, cutlery can be reused multiple times rather than throwing away. One practical effective solution to implement is to adopt a reusable cup system. This system is currently being implemented in Tivoli Garden in Copenhagen, where customers have to pay 5dkk for reusable plastic glasses and receive money back while returning the glasses or buying and returning them through Machines (Tivoli Gardens., 2023). This model reduces the single use of waste and promotes reuse concept, as the returned cup is cleaned and reused for other, future customers which foster circular use of materials. The owner of Cheesy Dreams and Hygge the vendor from Reffen outlined in her interview How could the Reffen not use the same strategy as Tivoli to reuse the material as it's been successfully running in Tivoli.

Similarly, the owner of Cheesy Dreams and Hygge outlined that in Hygge they sell meat and some products like meat cannot be cut by wooden knives and forks, it needs hard knives and forks. Therefore, instead giving them single use plastic knife and fork they try to use durable, washable knives and forks and ask customer to return after use collect it in one bucket and wash it in dishwashing machine in 82 degree and reuse it again in future for other customers. (Appendex, with red color).

The Tivoli is not only implementing the reuse concept, but Keen Hub, also provide stainless steel food containers and cups, and café and restaurants can lend the product for free of charge and within 10days the product can be returned to any partner, where product is washed and reused (Dansk Industri. 2025).

Thus, the researchers also think this concept will be the best model to reduce waste and reuse the material where customers can use reusable cups, food containers, cutlery and return back after use, as it contributes to the circular economy by extending the product lifecycle and long-term solution for Reffen's to align with the circular economy principles. And this solution should not be isolated in one stall but ensure all vendors should equally contribute and implement which also reduce financial and logistic burden.

2. Support Food waste Sorting

Through the observation, interview and visual image the researcher outlined no vendors were sorting the food waste. There is a serious gap that undermines Reffen's circular claim. Thus, Reffen management must routine checks to vendors bin, clearly, color and label waste bins inside each stall, provide feedback regarding their performance and progress.

3. Mandatory structural seasonal training and Peer Learning

Through the field visit, observation and interview the researcher can outline that most of the vendors do not have in depth knowledge of sustainability or circularity. Thus, Reffen management must implement formal training program regarding principle and goal of circular economy at least once a season and at least one mandatory representation from each vendor, either owner, senior staff or manager must join the training. The training motto should make every vendor aware of sustainability, circularity, it's benefits, and what could be the best practice within the market, food waste sorting, waste and resource management, listen to the vendors barriers and try to provide the best solutions. The training should also facilitate peer learning where those who participated in training can exchange knowledge among others within their own stall and other stalls at Reffen's. Thus, knowledge exchange can promote practical innovation and strength the sense of responsibility.

6.0 References

- Alfiero, S., Bonadonna, A., Cane, M., & Lo Giudice, A. (2019). Street food: A tool for promoting tradition, territory, and tourism. *Tourism analysis*, 24(3), 305-314.,
- Alimi, B. A. (2016). Risk factors in street food practices in developing countries: A review. *Food science and human wellness*, 5(3), 141-148.
- Ardévol, E. (2012). Virtual/visual ethnography. *Advances in visual methodology*, 74-94.
- Aryal, C. (2020). Exploring circularity: A review to assess the opportunities and challenges to close loop in Nepali tourism industry. *Journal of Tourism & Adventure*, 3(1), 142-158.
- Ayub, H., Awan, M., Nazir, W., Sami, A., & Khalid, N. (2022). Qualitative assessment of cooking oils used by street food vendors of Lahore, Pakistan. *Journal of food quality and hazards control*, 9(2), 78-87.
- Balkenende, R., Bocken, N., & Bakker, C. (2017). Design for the circular economy. In *Routledge Handbook of Sustainable Design* (pp. 498-513). Routledge.
- Barboza, L. L., Bertassini, A. C., Gerolamo, M. C., & Ometto, A. R. (2022). Organizational values as enablers for the circular economy and sustainability. *RAE - Revista de Administração de Empresas*, 62(5), e2021-0331.
- Bargeman, B., & Richards, G. (2020). A new approach to understanding tourism practices. *Annals of tourism research*, 84, 102988.
- Bargeman, B., Richards, G., & Charante-Stoffelen van, M. (2022). The social practice of care hotel vacations. *Tourism Case Studies*, (2022), tourism20220009.
- Baum, T. (2006). Human resource management for tourism hospitality and leisure. Thomson.
- Bausch, T., Schröder, T., Tauber, V., & Lane, B. (2021). Sustainable tourism: The elephant in the room. *Sustainability*, 13(15), 8376.

- Bellia, C., Pilato, M., & Seraphin, H. (2016). Street food and food safety: a driver for tourism?. *Calitatea*, 17(S1), 20.
- Bhowmik, S. (2010). *Street vendors in the global urban economy*. Routledge.
- Boluk, K. A., Cavaliere, C. T., & Higgins-Desbiolles, F. (2019). A critical framework for interrogating the United Nations Sustainable Development Goals 2030 Agenda in tourism. *Journal of Sustainable Tourism*.
- Booking.com(2024), Retrived from <https://news.booking.com/latest-bookingcom-sustainable-travel-data-reveals-ongoing-challenges-for-consumers--highlights-a-heightened-opportunity-for-cross-industry-collaboration/>
- Bouafou, K. G. M., Beugré, G. F. C., & Amani, Y. C. (2021). Street food around the world: A review of the literature. *Journal of Service Science and Management*, 14(6), 557-575.
- Bryan, F. L., Michanie, S. C., Alvarez, P., & Paniagua, A. (1988). Critical control points of street-vended foods in the Dominican Republic. *Journal of food protection*, 51(5), 373-383.
- Buttol, P., Buonamici, R., Naldesi, L., Rinaldi, C., Zamagni, A., & Masoni, P. (2012). Integrating services and tools in an ICT platform to support eco-innovation in SMEs. *Clean Technologies and Environmental Policy*, 14, 211-221.
- Calloni, M. (2013). Street food on the move: A socio-philosophical approach. *Journal of the Science of Food and Agriculture*, 93(14), 3406-3413.)
- Camilleri, M. A. (2019). The circular economy's closed loop and product service systems for sustainable development: A review and appraisal. *Sustainable Development*, 27(3), 530-536.
- Camilleri, M. A. (2021). Sustainable production and consumption of food. Mise-en-place circular economy policies and waste management practices in tourism cities. *Sustainability*, 13(17), 9986.
- Cardenas, M., Schivinski, B., & Brennan, L. (2024). Circular practices in the hospitality sector regarding food waste. *Journal of Cleaner Production*, 472, 143452.

CBI, (2021). *The European market potential for food tourism*. Centre for the promotion of Imports from developing countries. Retrieved from <https://www.cbi.eu/market-information/tourism/food-tourism/market-potential>.

CEnTOUR,(2021). *Managing the transition to circular economy for tourism providers*. Retrived from <https://circulartourism.eu/wp-content/uploads/2021/02/CIRCULAR-ECONOMY-TRANSITION-FOR-TOURISM-PROVIDERS.pdf>

Cerovic, L., Drpic, D., & Milojica, V. (2014). Renewable energy sources in the function of sustainable business in tourism and hospitality industry. *Renewable Energy*, 18(3), 130-139.

Chang, R. C., Kivela, J., & Mak, A. H. (2011). Attributes that influence the evaluation of travel dining experience: When East meets West. *Tourism Management*, 32(2), 307-316.

Cheap eats in Denmark. (2025). VisitDenmark. Retrieved from <https://www.visitdenmark.com/denmark/things-do/danish-food/eating-budget>

Chen, T., & Liu, G. (2025). Global perspectives on environmental policy innovations: Driving green tourism and consumer behavior in circular economy. *Journal of Environmental Management*, 374, 124138.

Chimirri, D. (2021). Studying tourism in Greenland through collaboration: A social practice approach.

Circle Economy. (2022). *Circularity Gap Report 2022: Country roadmaps*.

Circle Economy. (2023, pp. 1-64, Rep.). *The Circularity Gap Report 2023*. Four flows by Circle Economy. (2023).

The circularity gap report (2023) (pp. 1-64, Rep.) Amsterdam: Circle Economy. [CC BY-SA 4.0](#) Circle Economy. (Creative Common License CC BY SA 4.0). Retrieved from, <https://www.circularity-gap.world/2023>.

City Corporation as a Model, Final Report. Food Planning and Monitoring Uni

- Cornejo-Ortega, J. L., & Chavez Dagostino, R. M. (2020). The tourism sector in Puerto Vallarta: An approximation from the circular economy. *Sustainability*, 12(11), 4442.
- Corsini, F., Laurenti, R., Meinherz, F., Appio, F. P., & Mora, L. (2019). The advent of practice theories in research on sustainable consumption: Past, current and future directions of the field. *Sustainability*, 11(2), 341.
- Crabtree, B. F., & Miller, W. L. (1999). Using codes and code manuals: a template organizing style of interpretation. *Doing qualitative research*, 2, 163-177.
- Dansk Industri. (2025). Kleen hub – Bæredygtigt alternativ til engangsemballage. Retrieved from <https://www.danskindustri.dk/politik-og-analyser/di-mener/miljoenergi/cirkular-okonomi/cirkularitetcases/kleen-hub--baeredygtigt-alternativ-til-engangsemballage/>
- Davies, S. J., & Egas, J. L. (2022). Do social corporate responsibility initiatives help to promote circular economic activity and quality of work life for employees?. *Worldwide Hospitality and Tourism Themes*, 14(3), 221-235.
- Dawadi, B. (2022). Implication of circular economy in the tourism industry. Case study–Lahti, Finland.
- DeWalt, Kathleen Musante., and Billie R. DeWalt. *Participant Observation: A Guide for Fieldworkers*. Altamira Press, 2011.
- Dhir, A., Talwar, S., Kaur, P., Malibari, A., 2020. Food waste in hospitality and food
- Dixit, S. K. (Ed.). (2019). *The Routledge handbook of gastronomic tourism*. Routledge.
- Dredge, D., Jenkins, J., & Whitford, M. (2011). Stories of practice. *Stories of Practice: Tourism Policy and Planning*, 37-56.
- Drysdale, K., & Wong, K. A. (2019). Sensory ethnography.
- EHL Holding SA, Switzerland,(2025). *EHL Insights*. Retrived from <https://hospitalityinsights.ehl.edu/hospitality-industry-statistics>
- Einarsson, S., & Sorin, F. (2020). Circular economy in travel and tourism.

Ekanem, E. O. (1998). The street food trade in Africa: safety and socio-environmental issues. *Food control*, 9(4), 211-215.

Ellen MacArthur Foundation, (2022). We need to radically rethink how we design. Retrieved from <https://www.ellenmacarthurfoundation.org/schools-of-thought-that-inspired-the-circular-economy>

European Commission, Eurostat. (2024). *Events and webinars 2024*. Available online: <https://ec.europa.eu/eurostat/news/events/2024>

European Commission. Environment Directorate-General. (2014). *The circular economy: Connecting, creating and conserving value*. European Commission Publication Office. Available online: https://commission.europa.eu/index_en

European Environment Agency (EEA). (2025). *Scientific articles on circular economy*. Retrieved March 25, 2025, from <https://www.eea.europa.eu/en/circularity/thematic-metrics/enabling/scientific-articles-on-circular-economy?>

Everett, S. (2016). Food and drink tourism: Principles and practice.

FAO (Food and Agriculture Organization of the United Nations) (1990). *L'Alimentation de Rue en Afrique*. Food and Agriculture Organization of the United Nations.

Faruque, Q., Haque, Q. F., Shekhar, H. U., & Begum, S. (2010). Institutionalization of healthy street food system in Bangladesh: A pilot study with three wards of Dhaka City Corporation as a model. *National Food Policy Capacity Strengthening Programme (NFPCSP)*, 7, 1-84.

Fielding, N. (1993), "Ethnography", in Gilbert, N. (Ed.). *Researching Social Life*, Sage, London.

Food Organisation of Denmark. (n.d.). *Copenhagen Cooking & Food Festival*. Retrieved, from <https://foodnationdenmark.com/news/welcome-to-copenhagen-cooking-food-festival/>

Food Organisation of Denmark. (n.d.). *Food Organisation of Denmark*. Retrived from : <https://www.thefoodproject.dk/>

- Geissdoerfer, M., Savaget, P., Bocken, N. M., & Hultink, E. J. (2017). The Circular Economy—A new sustainability paradigm?. *Journal of cleaner production*, 143, 757-768.
- Geng, Y., & Doberstein, B. (2008). Developing the circular economy in China: Challenges and opportunities for achieving 'leapfrog development'. *The International Journal of Sustainable Development & World Ecology*, 15(3), 231-239.
- Girard, L. F., & Nocca, F. (2017). From linear to circular tourism 1. *Aestimum*, (70), 51.
- Gössling, S., & Peeters, P.M. (2015). Assessing tourism's global environmental impact 1900–2050. *Journal of Sustainable Tourism*, 23(5), 639–659.
- Grangxabe, X. S., Madonsela, B. S., Maphanga, T., Gqomfa, B., Phungela, T. T., & Malakane, K. C. (2024). An overview of waste management practices of street vendors in sub-saharan africa: A meta-analysis. *Journal of Environmental Management*, 364, 121464.
- Gregson, N., Crang, M., Fuller, S., & Holmes, H. (2015). Interrogating the circular economy: the moral economy of resource recovery in the EU. *Economy and society*, 44(2), 218-243.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of qualitative research*, 2(163-194), 105.
- Gupta, V., Khanna, K., & Gupta, R. K. (2018). A study on the street food dimensions and its effects on consumer attitude and behavioural intentions. *Tourism Review*, 73(3), 374-388.
- Habib, A., & Brady-Savignac, C. (2019). Rendering Time (Basinski): an Interview with William Basinski. *Intermedialités*, (33).
- Hair, J. F., Celsi, M. W., Ortinau, D. J., & Bush, R. P. (2017). *Essentials of marketing research*. McGraw-Hill.
- Hammersley, M., & Atkinson, P. (2019). *Ethnography: Principles in practice*. Routledge. Healthy Street Food System in Bangladesh: A Pilot Study with Three Wards of Dhaka

Healthy Street Food System in Bangladesh: A Pilot Study with Three Wards of Dhaka

Heelan, C. A. (n.d.). The World's Best Street Food: 12 Top Cities. Frommer's. Retrieved May 09, 2025 from <https://www.frommers.com/slideshows/818551-the-world-s-best-street-food-12-top-cities/>

Henderson, J. C. (2019). Street food and tourism: A Southeast Asian perspective. *Food tourism in Asia*, 45-57.

Henderson, J. C., Yun, O. S., Poon, P., & Biwei, X. (2012). Hawker centres as tourist attractions: The case of Singapore. *International Journal of Hospitality Management*, 31(3), 849-855.

Henrysson, M., & Nuur, C. (2021). The role of institutions in creating circular economy pathways for regional development. *The Journal of Environment & Development*, 30(2), 149-171.

Hobson, K., & Lynch, N. (2016). Diversifying and de-growing the circular economy: Radical social transformation in a resource-scarce world. *Futures*, 82, 15-25.

Huong, T. T. L., & Kieu, N. T. D. (2023). Street food experience and destination image: a study on tourist perceptions in Da Lat. *Journal of International Economics and Management*, 23(3), 68-88.

IBT, (2025). *IBT Berlin*. COPENHAGEN BECOMES SUSTAINABLE URBAN FARMING HUB. Retrived From <https://news.itb.com/topics/news/copenhagen-refshaleoen-sustainable-food/>

Ioannidis, A., Chalvatzis, K. J., Leonidou, L. C., & Feng, Z. (2021). Applying the reduce, reuse, and recycle principle in the hospitality sector: Its antecedents and performance implications. *Business Strategy and the Environment*, 30(7), 3394-3410.

J Timothy, D. (2021). Heritage and tourism: Alternative perspectives from South Asia.

J. Clean. Prod. 270. <https://doi.org/10.1016/j.jclepro.2020.122861>, 122861

- Jaroszewska, M., Chaja, P., & Dziadkiewicz, A. (2019). Sustainable energy management: Are tourism SMEs in Poland ready for circular economy solutions. *International Journal of Sustainable Energy Planning and Management*, 24, 75-84.
- Jeaheng, Y., & Han, H. (2020). Thai street food in the fast-growing global food tourism industry: Preference and behaviors of food tourists. *Journal of Hospitality and Tourism Management*, 45, 641-655.
- Jeaheng, Y., Al-Ansi, A., Chua, B. L., Ngah, A. H., Ryu, H. B., Ariza-Montes, A., & Han, H. (2023). Influence of Thai street food quality, price, and involvement on traveler behavioral intention: exploring cultural difference (eastern versus western). *Psychology Research and Behavior Management*, 223-240.
- Karimi, S., Wawire, M., & Mathooko, F. M. (2017). Impact of frying practices and frying conditions on the quality and safety of frying oils used by street vendors and restaurants in Nairobi, Kenya. *Journal of Food Composition and Analysis*, 62, 239-244.
- Kedla, S., Nandini, B., & Chethan, S. (2025). Street Food Culture and Culinary Tourism: Economic Drift for the Tourism Industry. *European Journal of Arts, Humanities and Social Sciences*, 2(2), 85-91.
- Khan, O., Marrucci, L., Daddi, T., & Bellini, N. (2021). Adoption of circular economy and environmental certifications: Perceptions of tourism SMEs. *J. Mgmt. & Sustainability*, 11, 218.
- King, N. (2004). 21—Using templates in the thematic analysis of text—. *Essential guide to qualitative methods in organizational research*, 256.
- Kiráľová, A., & Malec, L. (2021). Local food as a tool of tourism development in regions. *International Journal of Tourism and Hospitality Management in the Digital Age (IJTHMDA)*, 5(1), 54-68.
- Kirchherr, J., Reike, D., & Hekkert, M. (2018). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation and Recycling*, 127, 221-232.
- Kitchen rebel, (2024). *Reffen Street Food Market – The Entire World on an Island*. Retrieved from <https://www.ktchnrebel.com/copenhagen-street-food/>

- Krajnc, D., & Glavič, P. (2005). A model for integrated assessment of sustainable development. *Resources, conservation and recycling*, 43(2), 189-208.
- Kujala, J., & Sachs, S. (2023). Engaging stakeholders in the circular economy: A systematic literature review. In *Stakeholder Engagement in a Sustainable Circular Economy* (pp. 57–97).
- Lamers, M., Van der Duim, R., & Spaargaren, G. (2017). The relevance of practice theories for tourism research. *Annals of Tourism research*, 62, 54-63.
- Lee, S., Park, H., & Ahn, Y. (2020). The influence of tourists' experience of quality of street foods on destination's image, life satisfaction, and word of mouth: The moderating impact of food neophobia. *International Journal of Environmental Research and Public Health*, 17(1), 163.
- Liu, A. H., Leach, M. P., & Bernhardt, K. L. (2005). Examining customer value perceptions of organizational buyers when sourcing from multiple vendors. *Journal of business research*, 58(5), 559-568.
- MacArthur, E. (2013). Towards the circular economy. *Journal of industrial ecology*, 2(1), 23-44.
- MacArthur, E., Zumwinkel, K., & Stuchtey, M. R. (2015). Growth within: a circular economy vision for a competitive Europe. *Ellen MacArthur Foundation*, 100.
- Maia, B., Silva, S., Melo, A., Silva, G., Azevedo, D., Camões, H., & Melo, C. (2024, March). Cooking Up a Sustainable Future: insights of Circular Economy in Restaurants. In *7th International Conference on Tourism Research: ICTR 2024*. Academic Conferences and publishing limited.
- Maksymiv, Y., Yakubiv, V., Hryhoruk, I., & Kravtsiv, V. (2021). Development of Circular Economy Concept: Historical Background. *Journal of Vasyl Stefanyk Precarpathian National University*, 8(3), 120-129.

- Maletz, R., Dornack, C., & Ziyang, L. (Eds.). (2018). Source separation and recycling.
- Manniche, J., Larsen, K. T., Broegaard, R. B., & Holland, E. (2017). Destination: A circular tourism economy. *A Handbook for Transitioning toward a Circular Economy within the Tourism and Hospitality Sectors in the South Baltic Region. Centre for Regional & Tourism Research (CRT)*.
- Maradin, D., Cerović, L., & Mjeda, T. (2017). Economic effects of renewable energy technologies. *Naše gospodarstvo/Our economy*, 63(2), 49-59.
- Martínez-Cabrera, J., & López-del-Pino, F. (2021). The 10 most crucial circular economy challenge patterns in tourism and the effects of COVID-19. *Sustainability*, 13(9), 4940.
- Mighty Media LLC, (2024). *Mighty Travel Premium*. Retrived from <https://www.mightytravels.com/2024/11/copenhagens-festival-calendar-a-month-by-month-guide-to-denmarks-capital-2024/>
- Mitchell, R. W., Wooliscroft, B., & Higham, J. (2010). Sustainable market orientation: A new approach to managing marketing strategy. *Journal of Macromarketing*, 30(2), 160-170.
- Morgan, G. T., Coleman, S., Robinson, J. B., Touchie, M. F., Poland, B., Jakubiec, A., ... & Cao, Y. (2022). Wellbeing as an emergent property of social practice. *Buildings & Cities*, 3(1).
- Mosca, F., Lazzarini, G., & Lucia, M. G. (2024). Rethinking business, society, and territories for the ecological transition. *Journal of Emerging Perspectives*, 1, 3-5.
- Muinde, O. K., & Kuria, E. (2005). Hygienic and sanitary practices of vendors of street foods in Nairobi, Kenya. *African Journal of Food, Agriculture, Nutrition and Development*, 5(1).
- Munir, K. (2022). Sustainable food waste management strategies by applying practice theory in hospitality and food services-a systematic literature review. *Journal of Cleaner Production*, 331, 129991.

- Murray, A., Skene, K., & Haynes, K. (2017). The circular economy: an interdisciplinary exploration of the concept and application in a global context. *Journal of business ethics*, 140, 369-380. (most)
- Naseem, S. (2021). The role of tourism in economic growth: Empirical evidence from Saudi Arabia. *Economies*, 9(3), 117.
- Ngozi, E. O., Giwa, O. H., Adeoye, B. K., Ani, I. F., Ajuzie, N. C., & Olutayo, T. I. (2019). Quality effect of repetitive use of frying oil by street food vendors on quality of the oil. *Nigerian journal of nutritional sciences*, 40(1), 73-78.
- PACE, (2021) Platform for Accelerating Circular Economy. The circularity gap report. Retrieved from <https://drive.google.com/file/d/1MP7EhRU-N8n1S3zpqlshNWxqFR2hznd/edit>.
- Pannila, N., Jayalath, M. M., Thibbotuwawa, A., Nielsen, I., & Uthpala, T. G. G. (2022). Challenges in applying circular economy concepts to food supply chains. *Sustainability*, 14(24), 16536.
- Pearce D., Turner R. Economics of Natural Resources and the Environment. Johns Hopkins University Press, Baltimore, 1989
- Privitera, D., & Nesci, F. S. (2015). Globalization vs. local. The role of street food in the urban food system. *Procedia Economics and Finance*, 22, 716-722.
- Quazi, F., Quazi, F. H., Hossain, U. S., & Shamima, B. (2010). Institutionalization of
- Rantala, O. (2010). Tourist practices in the forest. *Annals of Tourism Research*, 37(1), 249-264.
- Rathore, A. S., & Jodhana, L. S. (2012). An empirical analysis of the service operations of rajasthan tourism development corporation hotels. *South Asian Journal for Tourism & Heritage*, 5, 73-90.
- Reckwitz, A. (2002). Toward a theory of social practices: A development in culturalist theorizing. *European journal of social theory*, 5(2), 243-263.
- Reckwitz, A. (2016). Practices and their affects. In *The nexus of practices* (pp. 126-137). Routledge.
- Reffen, (2025). *Copenhagen Street Food*. Retrived from <https://reffen.dk/en/about/>

- Renfors, S. M. (2022). Circular economy in tourism: Overview of recent developments in research. *Matkailututkimus*, 18(1), 48-64.
- Renfors, S. M. (2023). Circular Economy in Tourism: A System-Level Approach. In *ICTR 2023 6th International Conference on Tourism Research*. Academic Conferences and publishing limited.
- Report Linker, (2025). *Forecast: Turnover of Restaurants and Mobile Food Service Activities in Denmark*. Retrived from <https://www.reportlinker.com/dataset/29fc46514693bd886072cc304cb4b236e872874f>
- Richards, G. (2015). Evolving gastronomic experiences: From food to foodies to foodscapes. *Gastronomy and Tourism*, 1(1), 5-17.
- Rodríguez, C., Florido, C., & Jacob, M. (2020). Circular economy contributions to the tourism sector: A critical literature review. *Sustainability*, 12(11), 4338.
- Rouse, J. (2007). Practice theory. In *Philosophy of anthropology and sociology* (pp. 639-681). North-Holland.
- Rousta, A., & Jamshidi, D. (2020). Food tourism value: Investigating the factors that influence tourists to revisit. *Journal of vacation marketing*, 26(1), 73-95.
- S., Bonadonna, A., Cane, M., & Lo Giudice, A. (2019). Street food: A tool for promoting tradition, territory, and tourism. *Tourism analysis*, 24(3), 305-314.
- Sah, A. K., Hong, Y. M., & Huang, K. C. (2025). Enhancing Brand Value Through Circular Economy Service Quality: The Mediating Roles of Customer Satisfaction, Brand Image, and Customer Loyalty. *Sustainability*, 17(3), 1-23.
- Sairanen, M., Aarikka-Stenroos, L., & Kaipainen, J. (2024). Customer-perceived value in the circular economy: A multidimensional framework. *Industrial Marketing Management*, 117, 321-343.

- Salón del Gas Renovable. (2021). *El modelo danés del biogás*. Retrieved from <https://www.salondelgasrenovable.com/noticias/el-modelo-danes-del-biogas/>
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Pearson education.
- Savage, J. (2000). Ethnography and health care. *Bmj*, 321(7273), 1400-1402.
- Saxena, G., & Saini, P. (2019). Hygiene and Sanitary Practices of Street Food Vendors: A Review.
- Schumann, F. R. (2020). Circular economy principles and small island tourism Guam's initiatives to transform from linear tourism to circular tourism. *Journal of Global Tourism Research*, 5(1), 13-20.
- Scopus Preview,(2021). Retrived from: <https://www.scopus.com/>
- Shove, E., Watson, M., & Pantzar, M. (2012). The dynamics of social practice: Everyday life and how it changes.
- Sinico, S., Selsner, K., Venturoli, G., Longo, J., & Lapina, L. Food, culture and urban development.
- Smol, M., Kulczycka, J., & Avdiushchenko, A. (2017). Circular economy indicators in relation to eco-innovation in European regions. *Clean Technologies and Environmental Policy*, 19, 669-678.
- Soica, S. (2016). Tourism as practice of making meaning. *Annals of tourism research*, 61, 96-110.
- Somekh, B., & Lewin, C. (2005). *Research methods in the social sciences*. Thousand Oaks: Sage.
- Sørensen, F., & Bærenholdt, J. O. (2020). Tourist practices in the circular economy. *Annals of Tourism Research*, 85, 103027.
- Sorin, F., & Sivarajah, U. (2021). Exploring Circular economy in the hospitality industry: empirical evidence from Scandinavian hotel operators. *Scandinavian Journal of Hospitality and Tourism*, 21(3), 265-285.
- Stahel, W. R. (2020). History of the circular economy. The historic development of circularity and the circular economy. *The Circular Economy in the European Union: An Interim Review*, 7-19.

Stanisˇkis JK (2012) Sustainable consumption and production: how to make it possible. *Clean Technol Environ Policy* 14(6):10151022

Statista, (2024). Travel, tourism & Hospitality. Retrived from <https://www.statista.com/statistics/1126996/traveler-attitudes-sustainability/>

Suryani, A. S., Tambunan, T. T., Santosa, B., & Haryanto, J. T. (2024). Circular Economy Approach to the Management of Used Cooking Oil for Biofuel Production. *Journal of Economics, Management, Entrepreneurship, and Business (JEMEB)*, 4(2), 98-105.

The Danish Dream,(2025). *Refshaleøen: Copenhagen's Thriving Cultural Oasis Born from Industrial Past*. Retrived from <https://thedanishdream.com/visiting/top-attractions/refshaleoen-copenhagens-thriving-cultural-oasis-born-from-industrial-past/>

Thorne, S. (2000). Data analysis in qualitative research. *Evidence-based nursing*, 3(3), 68-70.

Tinker, I. (1999). Street foods into the 21st century. *Agriculture and Human Values*, 16(3), 327–333.

Tivoli Gardens. (2023). Sustainability in Tivoli. Retrieved from <https://www.tivoli.dk/en/about-tivoli/sustainability>.

Tomassini, L., Baggio, R., Cavagnaro, E., Farsari, I., Fuchs, M., & Sørensen, F. (2024). Circular economy in tourism and hospitality: A micro-meso-macro framework for inter-disciplinary research. *Tourism and Hospitality Research*, 14673584241257870.

Tsai, C. T. S., & Wang, Y. C. (2017). Experiential value in branding food tourism. *Journal of Destination Marketing & Management*, 6(1), 56-65.

UN Tourism,(2025). *World Tourism Barometer*. Retrieved from <https://www.unwto.org/un-tourism-world-tourism-barometer-data>

UNEP, (2024). Circular Economy: An Alternative Model for Economic Development. United Nations Environment Programme. Retrived from: <https://www.unep.org/>

- United Nations (2021). Sustainable Development goals. URL: <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>.
- United Nations World Tourism Organization. (2025). *World Tourism Barometer*. Retrieved April 1, 2025, from <https://www.unwto.org/un-tourism-world-tourism-barometer-data>.
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & health sciences*, 15(3), 398-405.
- van't Riet, H., den Hartog, A. P., Hooftman, D. A., Foeken, D. W., & van Staveren, W. A. (2003). Determinants of non-home-prepared food consumption in two low-income areas in Nairobi. *Nutrition*, 19(11-12), 1006-1012.
- Vargas-Sánchez, A. (2018). The unavoidable disruption of the circular economy in tourism. *Worldwide Hospitality and Tourism Themes*, 10(6), 652-661.
- Vatansever, K., Akarsu, H., & Kazançoğlu, Y. (2021). Evaluation of transition barriers to circular economy: a case from the tourism industry.
- Veal, A. J. (2017). *Research methods for leisure and tourism*. Pearson UK.
- Verbeek, D., & Mommaas, H. (2008). Transitions to sustainable tourism mobility: The social practices approach. *Journal of sustainable tourism*, 16(6), 629-644.
- Vignola, R., & Oosterveer, P. (2022). Street food environmental sustainability in a urbanizing global south: A social practice perspective. *Frontiers in Sustainable Food Systems*, 6, 910547.
- Visit Copenhagen,(2025). Retrived from <https://www.visitcopenhagen.com/copenhagen/planning/reffen-copenhagen-street-food-gdk1101719>
- VisitDenmark, (2025). *Noegletal om dansk turisme*. Retrived from <https://www.visitdenmark.dk/corporate/videncenter/noegletal-om-dansk-turisme>
- WHO, (2019) Food Environment Description in cities – eastern Europe and central Asia. Banja Luka. The Republika Srpska. Retrived from file:///C:/Users/Bruger/Downloads/WHO-FEED-Banja-Luka-report_WEB.pdf
- World Economic Forum, (2025). Retrieved from:<https://www.weforum.org/stories/2024/03/sustainable-resource-consumption-urgent-un/>.

Xu, F., Li, Y., Ge, X., Yang, L., & Li, Y. (2018). Anaerobic digestion of food waste—Challenges and opportunities. *Bioresource technology*, 247, 1047-1058.

Zorpas, A. A., Navarro-Pedreño, J., Panagiotakis, I., & Dermatas, D. (2021). Steps forward to adopting a circular economy strategy by the tourism industry. *Waste Management & Research*, 39(7), 889-891.