

INVESTIGATION OF REUSE POSSIBILITIES OF UNCONSUMED MEALS IN HOTEL KITCHENS TO PREVENT FOOD WASTE

Emre Hastaoğlu, Şefahat Eyce

Sivas Cumhuriyet University, Sivas, Türkiye

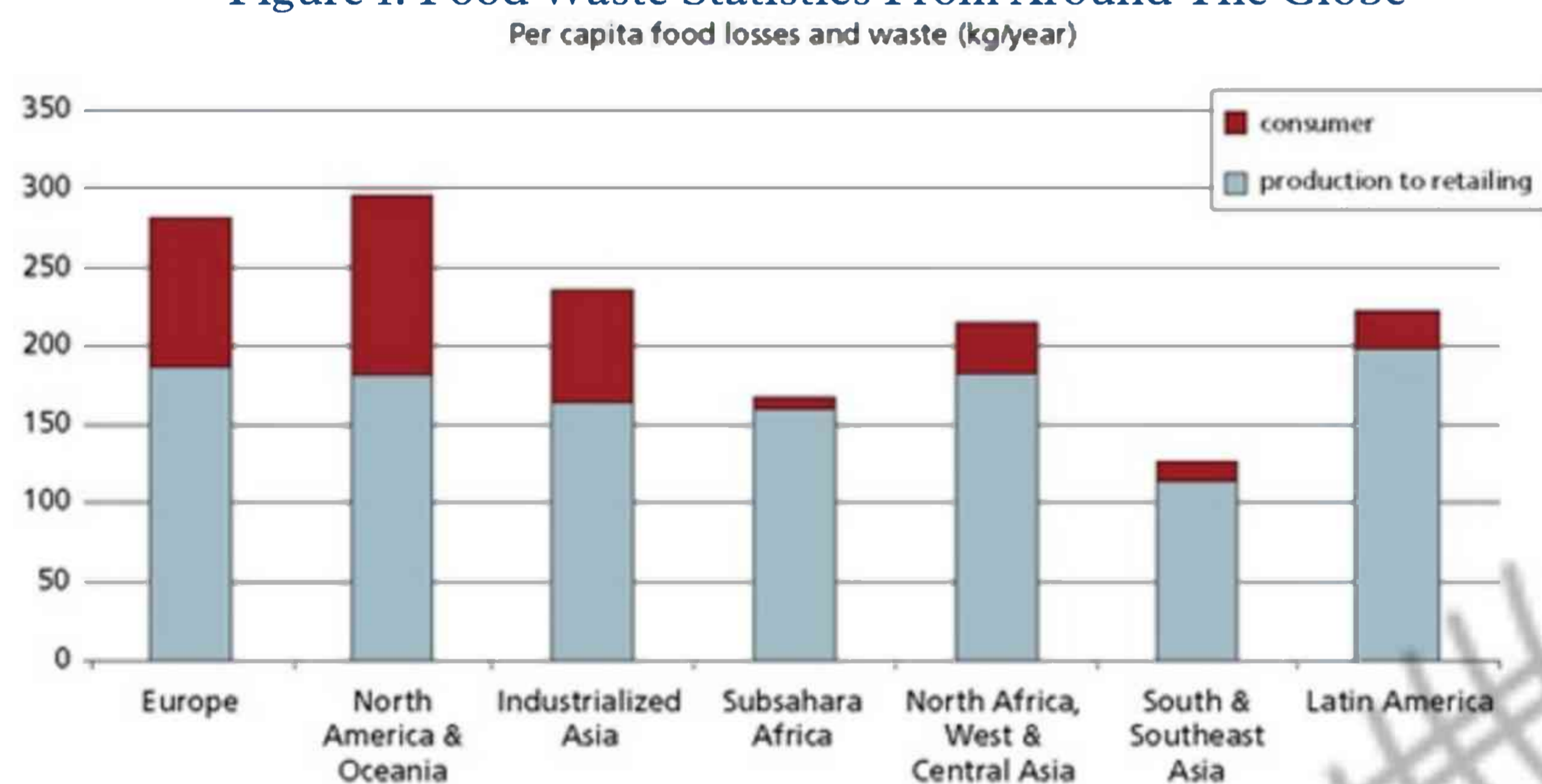
(email: ehastaoglu@cumhuriyet.edu.tr)



Introduction

Food has gone beyond basic nutritional needs and has become an element of pleasure and experience. However, this has also brought along negative effects such as food waste. According to the UN Food and Agriculture Organization, 1.3 billion tons of food is wasted globally every year (Demirbaş, 2018). The main causes of waste are lack of awareness, inadequate storage, improper stock management and lack of portion control (Tekiner et al., 2021). Various methods such as storage solutions, smart packaging, public awareness, food banks and government policies are applied to prevent food waste. In hotel businesses, buffet systems and inaccurate forecasts increase waste, while effective inventory control and guest awareness play an important role in preventing waste (Erik & Pekerşen, 2019).

Figure 1: Food Waste Statistics From Around The Globe



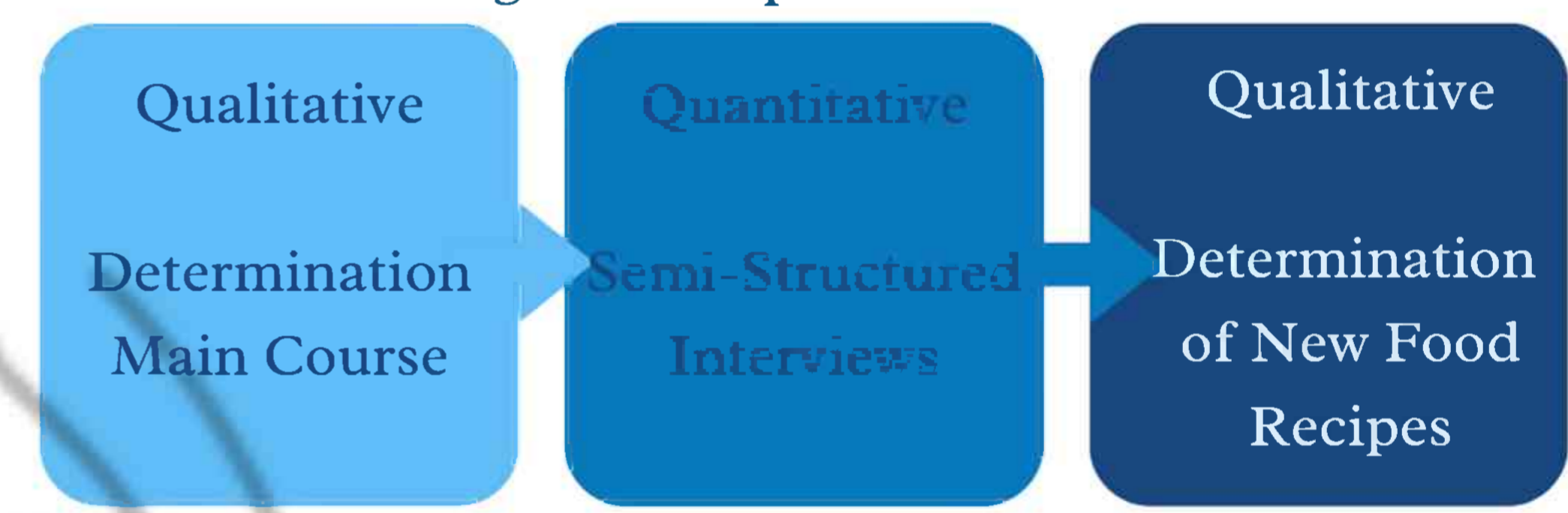
Aim & Methodology

The aim of this study is to examine the practices for recycling unconsumed meals into different meals in line with developing sustainable solutions to reduce food waste in hotel kitchens. In this context, it is aimed to contribute to the development of strategies to prevent waste in hotel businesses and to provide practical and innovative solutions for both minimizing food waste and sustainable kitchen practices.

This study was carried out in three stages in line with the determined purpose. In the first stage, the main causes of food waste in the food and beverage sector were examined. In the second stage, semi-structured interviews were conducted with 16 hotel managers operating in the Mediterranean and Aegean regions of Turkey using qualitative research method. Through these interviews, the most wasted meals in hotel kitchens, the kitchen departments where this waste is concentrated, and the potential of some meals to be used as the main ingredient of another meal were identified.

In the third stage, in line with the data obtained, sample meal suggestions that can be produced from these meals were developed in order to ensure the reuse of wasted meals.

Figure 2: Steps of Research



Results

As a result of the interviews with hotel managers, it was stated that the main reasons for food waste in the food and beverage sector are lack of demand forecasts, inadequate inventory management and failure to provide appropriate storage conditions. In addition, it was stated that serving portions larger than necessary, not knowing the difference between the expiration date and the recommended consumption date, and inefficiencies in the preparation process also lead to waste. In addition, insufficient awareness of environmental and social responsibility was evaluated as another factor that increased food loss by preventing the spread of sustainable practices.

It has been determined that food waste in hotel kitchens is concentrated on various products in different kitchen departments. Soup varieties, rice varieties and vegetable dishes in the hot kitchen, salads and appetizers in the cold kitchen are the prominent waste items. Dried cakes and puddings in the patisserie, and pita bread and stale bread in the pastry shop are among the most wasted products. In addition, grilled fish in the butcher shop and cheese varieties and boiled eggs in the breakfast section were identified as the most wasted products.

Figure 3: Meal Cycles in Food Prevention

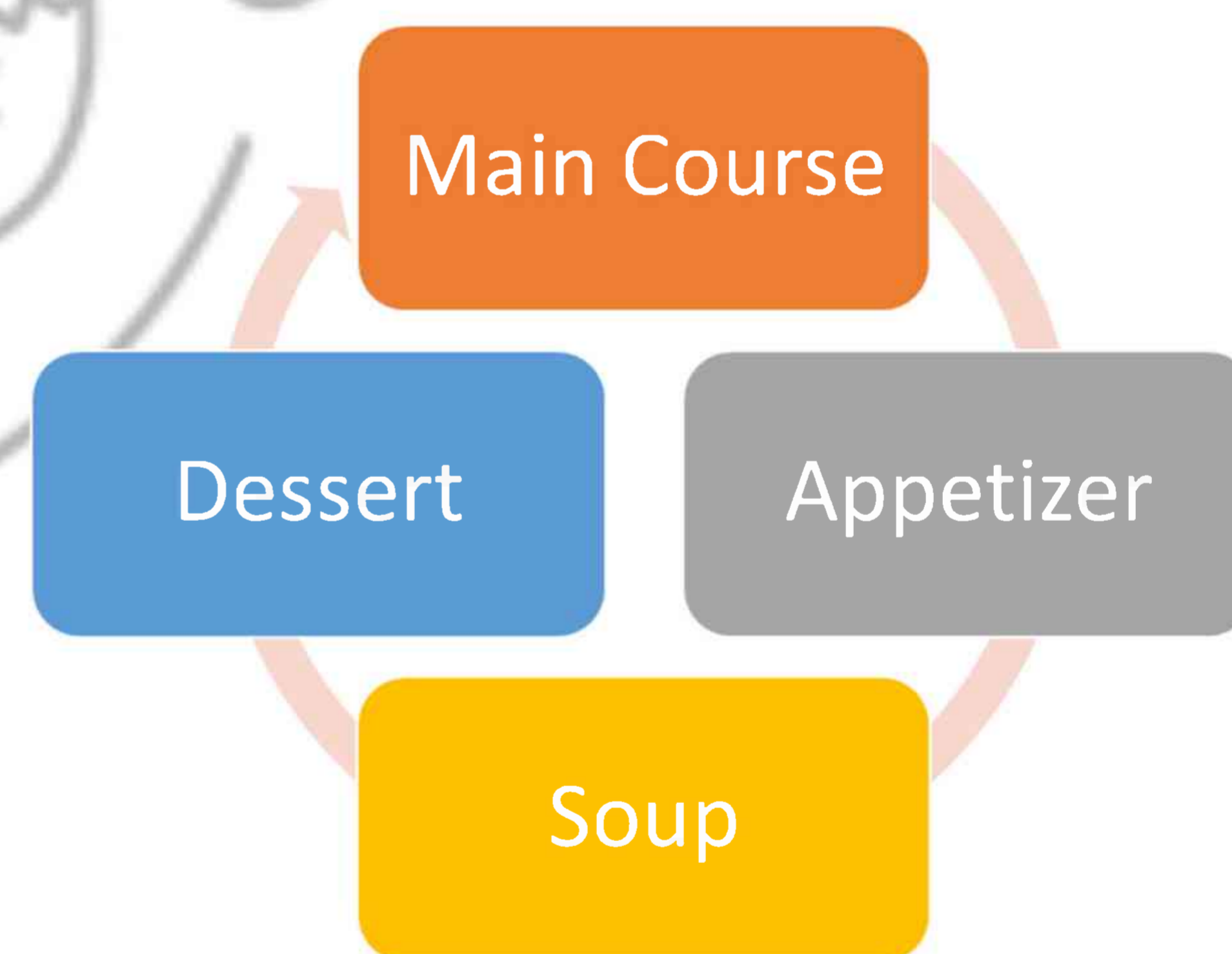


Table 1. Some New Meal Examples Transformed from Unconsumed Meal in Turkish Culinary Culture

Unconsumed Meal	New Meal	Unconsumed Meal	New Meal
Lentil Soup	Ezogelin Soup	Pita Bread	Tirit Kebab
Bulgur Pilaf	Ezogelin Soup	Dried Cakes	Pudding Desert Cake Balls
Bulgur Pilaf	Bulgur Salad	Fish Meals	Fish Soup, Fish Meatball
Rice Pilaf	Kadınbudu Meatball	Dried Bread	Dried Bread Pizz Galeta
Rice Pilaf	Rice Pudding	Cheeses	Cheese Börek
Rice Pilaf	Plateau Soup	Dry Bean Meal	Bean Piyaz
Potato Meal	Potato Soup	Boiled Chicken	Chicken Breast Dessert
Potato Meal	Potato Pure	Boiled Red Meat	Wedding Soup
Chickpea Meal	Falafel	Chocolate	Glaze Sauce
Chickpea Meal	Humus	Eggplant Meal	Eggplant Börek
Salads	Gazpacho Soup	Galeta	Cyprus Dessert

Conclusion

In order to reduce food waste, such new meal derivation practices can be implemented regularly in hotels and even new meal types can be derived. Awareness-raising activities can be carried out for guests who are prejudiced against dishes derived from such leftovers. Hotels that use new food derivation practices can encourage other hotels to do so. Workshops can be organized in hotels as an example of how new dishes can be prepared with leftovers to raise awareness of food waste.

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