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**THE IMPACT OF MODERN TECHNOLOGY  
TOWARDS MALAY TRADITIONAL FOODS  
PREPARATION AND COOKING PROCESSES  
AMONG CHEFS IN MALAYSIA**

By

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## CHAPTER 1: INTRODUCTION

### 1.0 BACKGROUND OF THE STUDY

Horowitz, (1985) found that ethnicity is included groups that differ by skin colour, language, and religion. For example, Allen, (1879) found the ethnic of Negritos. Those Negritos were speaking in Aslian languages that are part of the Austro-Asiatic language family and have Australo-Malaysian ties. They have several physical characteristics common to the African pygmy population, including short stature, fluffy hair, and dark skin. Besides, the meaning of ethnicity is also supported by Hesmondhalgh, (2013) which ethnic group "refers to the way in which language, social and cultural differences and ancestry are combined as a dimension of social action and social organization to form a classification system of social reproduction"(p.62).

Devine et al., (1999) believes that ethnicity is one of many factors that influence food choices. Ethnic foods are defined as foods derived from the traditions and culture of a certain ethnic group. In other words, ethnic food can be defined as ethnic or rural cuisine, culturally and socially accepted by consumers outside all ethnic groups. For example, Indian cuisine, Thai cuisine, and Korean cuisine are all regarded as ethnic foods outside the country. In addition, food eaten by people of different religions is also regarded as ethnic food. For example, traditional Buddhist cuisine, Christian cuisine, and Muslim cuisine also belong to the category of ethnic cuisine. Kwon, (2015) asserted, religion, and customary beliefs have a great influence on eating habits, especially through food laws, such as the implementation of taboos on the consumption of certain foods. Some ethnic foods are mentioned in holy books such as the Bible, Buddhist scriptures, Quran, and Bhagavad Gita, so most ethnic foods are affected by religion and taboos.

Advance to the country that is the main country in the study, namely Malaysia. Kamaruzaman, (2020) elucidated that Malaysia is a country separated by the South China Sea into two regions which is Peninsular Malaysia, also known as West Malaysia, and East Malaysia, located on the island of Borneo. Based on the current population estimates, Malaysia, 2020, Malaysia's population in 2020 is consists of 32.7 million people, and Bumiputeras make up the majority of the population with 69.6%, followed by Chinese at 22.6%, Indians at 6.8%, and others at 1%. Generally, Malays are Muslim, speak the Malay language, practicing Malay cultural traditions, and traditional cultural practices in Malay society can be observed through their food consumption. Traditionally, Malay food can be

defined as a variety of locally produced food with a unique local identity within Malay community.

Basically, the Malay cuisine in Malaysia, Indonesia, Singapore, and Brunei are similar because it came from the same root. Malay cooking is very unique because it has been assimilated by other influences such as Arabia, Indonesia, Thailand, Portugal, China, and India (Raji et al., 2017). Ainuddin, (2013) defines Malay food as five types of characteristics, which are luxury with spices and herbs, one of the main ingredients is coconut milk, food is usually spicy, meat is usually stewed with thick gravy, and usually, seafood is flavoured with turmeric powder. Brissenden, (2003) stated that, Malay food emerged during the 13th century and continued to grow during the trading years, where it was heavily influenced by Thailand and Indonesia. For example, the cuisine of Kelantan bordering Thailand and Terengganu bordering Kelantan shows distinctive Thai influence. The use of mint leaves, torch ginger, and kaffir lime leaves in rice dishes such as *nasi kerabu*, a popular Kelantan dish filled with green confetti of wild pepper leaves, basil, and Vietnamese coriander, is influenced by Thai dish. In addition, Indonesian cuisine has influenced kitchens throughout the interior of Malaysia through migration, especially in southern and central Malaysia. In the south, a large number of Javanese who lived there for centuries influenced Malay cuisine in Johor. The influence of sour, sweet, and spicy Javanese cuisine can be seen due to the migration of Javanese, for example, dishes such as *satay*, *mee bandung*, *mee rebus jawa*, and *lontong*.

Martilla, (2009) argues that cultures have are different tend to have their own unique cooking methods, and each one they have different terminology that often comes from history basic needs. Ainuddin, (2013), stated that there is various terminology of cooking methods used in Malay cuisine, which is divided into dry heat method and moist heat method. Besides these two, there is also a combined method, which involves both dry and moist heat. For example, the Malay cooking term for the dry heat method is *menumis* for example it is the process of making a cooking paste, chilli, or spices using oil or fat in a pan over a relatively high flame before being included in the main ingredient in cooking such as fish, meat, or vegetables. In addition, *menyangai* is also one of the dry heat methods. Usually, *menyangai* is a process that uses dry ingredients such as peanuts, dry-fried spices, or grated coconut without using oil in a small skillet or skillet over low heat. In addition, *melayur* that is a process of passing something over the fire. For example, banana leaves are used as food wrapper. The banana leaves should be run over the fire until dark green to soften them. This

process will help to not break the banana leaves when folded. Lastly, the *menyalai* process is the process of drying meat or fish or food that is smoked or baked over a fire.

In Malaysia, there are some restaurants that still maintain traditional cooking methods such as *menyalai*. For example, Wiens, (2019) found the Itik Salai Mashtar Restaurant that is located in Kampung Sungai Ramal Dalam, 43000 Kajang, Selangor. The restaurant serves a menu of smoked dishes such as *masak lemak cili padi* with smoked duck which is a popular menu in the restaurant.



Figure 1.0: The picture of ducks, chicken, and others are smoked by coconut shell-fueled fire

At Itik Salai Mashtar Restaurant, duck meat is smoked for 2 hours so that it produces a unique smell and has a distinctive aroma that is not the same as grilled or fried. As a result, the smoked process has produced a delicious duck, that is, the outer skin of the smoked duck will be golden and crunchy while the inner meat is very soft and fragrant. With the perfect ingredients and mixture of spices, this menu is very suitable to eat with rice and *ulam-ulaman* that can give satisfaction to every customer. In addition, there are also other side dishes for *masak lemak cili padi* such as meat, chicken, quail, and catfish. So, customers who are not fans of duck meat also have the opportunity to taste traditional Negeri Sembilan cuisine at Itik Salai Mashtar Restaurant.



Abdullah et al., (2016) found that there are several terms of Malay cooking method for moist heat methods. For instance, the moist heat method is *menanak*. It is a method of cooking rice in a pot. Also, another method of moist heat is *menjerang* like putting a kettle to boil. *Mencelur* method is also a moist heat method. It is the process of blanching or dipping food, such as vegetables into heated water for a short period of time. Furthermore, *mereneh* method is the process of simmering food. At the same time, the method of *meracik* or *memayang* is categorized as the method of cutting and simply means thinly sliced. Through these methods, it shows that the Malay community has a wide and valuable cooking method terminology, which is in an aspect of language that has been created and used since ancient times.

In the modern world, there are a variety of cooking utensils have been used by humans. It is because technology has evolved and process automation has been introduced to society for human well-being. The basic inspiration behind this is to realize modernization in the kitchen and the innovations in the kitchen are very beneficial to everyone especially to reduce human effort in the cooking process. Mustafa, (2009) stated that, in ancient times, the special Malay kitchens were equipped with *lesung batu* which is mortars and pestle, and *batu giling* which is hand grinders made from stone to provide food. The *lesung batu* is used to grind spices, chillies, and onions or to pound all seasonings and pastes. At the same time, it can be used for making *kerisik* which is pounded or ground fried grated coconut. Besides, the *batu giling* is in which food is placed. This large stone slab has its specific name which is the ground is called the "mother" or *ibu giling*, and rolling pins are called "child" or *anak batu giling*. This stuff is used to crush the food ingredients. Therefore, the consumption of *lesung batu* and *batu giling* are believed to give a unique taste to the food, compared to the use of modern equipment such as blenders and food processors. The results of modern technology such as blenders are said to simply grind the ingredients for a smooth texture, but it does not release oils and the flavour of the ingredients. It clearly shows that the use of blender does not like how people used the traditional stones mortar, which pounds the ingredients uniformly.

In addition, *santan* or coconut milk is widely used in Malay cuisine. The traditional way to get coconut milk is by grate ripe mature coconut flesh. Besides, a little water is added and then squeezed to produce milk. *Kukur kelapa* or coconut grater is hand grater with a spike-like metal attached to the low end of the wood stool. To grate a coconut, one has to sit on a bench by holding half of the coconut shell and grated white coconut flesh against the metal spikes with an up-and-down motion (Ainuddin, 2013). *Kukur kelapa* is rarely found in

Malaysian homes nowadays. However, the electricity-grated coconut can be found at most supply stores or wet markets. The electric coconut grater head is round metal with a sharp pine head. It grates when the machine is turned on. To grate coconut, the husk is removed and the hard coconut shell is broken into two parts. The pulp of half of the coconut is held against the coconut machine head at a time and the coconut is grated. A basin is placed below the metal head to get a grated coconut (Rahman, 2021).

Another important element in a traditional Malay kitchen design is *dapur kongkong*, which serves as a stove. *Dapur kongkong* or charcoal-burning stove is similar to a table and made of a mixture of clay and salt. The *dapur kongkong* consists of two parts which are a *sabak* or furnace and two *tungku* which is riser stone with a double horizontal iron rod. Usually, this type of Malay kitchen has its own specific smells of firewood and the haze from the daily burning of charcoal mingled with the aroma of red chillies, garlic, and pungent *belacan* that cooked together in a massively heated pan. The kitchen area was cleaned as soon as possible cooking is complete, and a *mengkuang* mat or *pandanus* mat is laid out while eating. Besides, leftover dishes are stored in the *para* or wooden cabinets with wired doors. At the same time, the small tools that are cleaned are also stored in the *para*. When it comes to large utensils, such as pans, pots, or kettles, it is stored in the storeroom where it is mounted on the *pemandang dinding* or wall studs and alang or truss with nails. Preferably, the kitchen serves as a place for family members, grind spices, stir pots, and observe cooking methods. However, nowadays in Malaysia, *dapur kongkong* or charcoal-burning stoves are no longer used in the kitchen of most households. It is because those stoves have been replaced with modern appliances such as gas stoves and electric stoves.

In conclusion, Malaysia is a multicultural country with many religions, ethnicity, and languages. As the largest population in Malaysia, Malays have its own unique food with an aroma, taste, and flavour based on the settlement area and a process of assimilation that stems from colonial influences. The presence of local ingredients also makes Malay food in contrast to the food of other races. However, in the globalization era, the value of ethnic food traditions will be manifested through other additional content. The content is based on truth and credibility, will be important to the development of the Malay food industry. Thus, the society that ventures into the field of modern technology has produced various tools such as innovation in the kitchen that will help reduce human efforts and to change the method of cooking Malay food traditionally. This change will certainly have various effects on various parties, especially on the process of cooking Malay food in Malaysia.

## 1.1 PROBLEM STATEMENT

All traditional cooking methods such as *menuhis* (onion, garlic, chilli paste), *menyangai* (dried spices, peanuts, or dried coconut without oil), *menyalai* (smoked or cooked meat or fish) and *melayur* (the grilling of banana leaves until banana leaves are baked to soften them to prevent them from breaking when folded as a food package) can take time long to cook because of their complicated cooking process (Suhailah Abdul Ghafar Rahman et al., 2021). It has changed lifestyles many Malaysians today, particularly those who enjoy a fast and easy lifestyle, will choose not to prepare traditional Malay food from scratch, or, in the worst-case situation, will choose not to cook traditional Malay food at all. As a result, this transformation may have an impact on the long-term viability of traditional Malay cuisine, as traditional Malay cooking practises will be ignored and eventually perish.

However, this study only focuses on the hotel industry and little is known about how the preparation and cooking process of traditional Malay food has been influenced by modern technology. Therefore, this study will explore the impact of modern technology on the process of cooking traditional Malay dishes by chefs when cooking traditional dishes in restaurants (Rahman et al., 2021). All of these developments demonstrate how, as a result of the wave of modernisation, human lifestyle has altered over time.

The methods of preparing and cooking traditional Malay food have been transformed as a result of the introduction of modern cooking appliances, and the majority of them are no longer prepared and cooked traditionally. Traditional cooking utensils, on the other hand, are nearly non-existent in Malay households nowadays, and can only be found in rural areas or villages Raji et al., (2017), as more people choose to use contemporary cooking equipment like gas and electric stoves.

According to Kamaruzaman et al., (2020), many people in this day and age have lost the distinctiveness of the cooking skills and practises that our forefathers passed down to us in Malay cuisine. According to Nor et al., (2020), the younger generation is giving up traditional Malaysian eating habits and replacing them with ready-made meals. Studies show that switching and unlimited information technology influences food intake and habit changes. Apart from that, the use of modern techniques helps Malay chefs adapt traditional cooking methods to the modern environment and cook more efficiently. Overall, it may be concluded that chefs' cooking skills may be deteriorating due to their over-reliance on current technologies.

Traditional equipment has gradually been supplanted by contemporary technology. Festival food preparation is getting significantly faster, more effective, and efficient. Nonetheless, the changes expressly reduce food ways habits among community members, particularly among the younger generations (Muhammad et al., 2018).

## **1.2 RESEARCH OBJECTIVE**

After discussing the problems and identifying the gaps, this proposed study qualitatively aims to investigate the impact of modern technology on the cooking of traditional Malay cuisine and its cooking process. States below the research objective for this study:

1. To investigate the effect of modern cooking technology towards Malay traditional food preparation and cooking process.
2. To examine the differences in cooking methods while using modern cooking technology.
3. To identify uniqueness of Malay food using modern technology.

## **1.3 RESEARCH QUESTION**

Three research questions were formulated to support the objectives and direction of the research proposal of this exploratory study. These survey questions serve as guidelines for developing data collection methods.

1. The next question was concerning the Malay cooks' prior hotel procedures. "In the Malay kitchen previously, everything was prepared from scratch." However, there are many instant pastes, premix goods, and instant coconut milk available currently. So, whatever portion of this is considered traditional!?" (Ismail et al., 2013).
2. The following question concerned the change and modification of traditional Malay cuisine in hotel commercial kitchens (Ismail et al., 2013).
3. The question asked the ethnic informants, do you think current technology has influenced how your ethnic feast is prepared and consumed, and if so, how much has it changed the way they are prepared and consumed? (Muhammad et al., 2018).

#### 1.4 SIGNIFICANT OF THE STUDY

The significant of study mostly to attract the reader about what actually the problem and what factor that contribute to this research. In the end of the research our objective is to see how the effect of modern technology that in world today can make or change the Malay traditional food that chef in Malaysia cooking based on devising and cooking technique. Therefore, it can contribute and reader can see how strong and effect of impact to our research outcome. That is why the effect of modern technology that in world today can make or change the Malay traditional food that chef in Malaysia cooking based on devising and cooking technique actually very important because this research can show modern technology give good impact and awareness about outcome based on three factor, firstly it give the good effect on the sustainability of traditional Malay food that using modern technology and it also can motivates sellers to use modern technology and putting together and it result is make perfect traditional Malay food. Last but not least is the uniqueness of food still the same if using modern technology in the cooking process. This is important thing because it show how far the effect of modern technology that in world today can make or change the Malay traditional food that chef in Malaysia cooking based on devising and cooking technique.

Another else, this research can show what actually main point to conclude that modern technology give positive impact such as it give benefit to street foods vendor, Malay household, restaurant outside to use the modern technology to make preparation of foods more easy to handle. For example restaurant can use a phone to see the right step of tutorial on how to preparation the foods to look better. That is why modern technology is needed right now because it gives more positive impact compare to negative. Otherwise, restaurant outside can more alert about the impact of modern technology to preparation and cooking process because it can increase the quality and standard and also can improve the cooking process such as restaurant can use electric cooking rice and microwave to heat the rice, fried chicken and so on foods to make their preparation of food is more effective and do not waste the time while chef is cooking. Last but not least, this research can show this modern technology actually change very fast based on time, latest technology, and large manufacturers of modern technology that keep produce new technology to fulfil the human satisfaction. That is why other researcher in future can get the benefit based on our research provided. This topic of research is wide and other researcher can explore more about it and can find new knowledge and can use it in future.

The effect of modern technology that in world today can make or change the Malay traditional food that chef in Malaysia cooking based on devising and cooking technique have wide scope if we explore that why our group think our research can contribute into two main perspective such as academic perspective and practical perspective. These two perspectives are described about how our research can give knowledge to student, lecture and effect on institution itself. Our research can give positive effect to student to more hardworking and explore more about new knowledge and try find issue that student have interest to do the research because it give benefit to student also. Academic and research also can contribute some of new idea about how can overcome this problem based on topic that explain something that very realistic now days. Why it is because modern technology is same condition with traditional equipment and it must along together to see the change and can analysis with method research that have right now.

Another else, practical knowledge also can contribute many benefit because it can create awareness into industry field such as foods preparation can more save time, taste of food and beverages also can more delicious because use modern technology it can make various convenience foods plus modern cooking equipment that very needed in cooking process right now (Raji et al., 2017). Zahari et al., (2011) is saying practical perspective also contribute to this topic based on this study that called as the modernization in Malay food actually included in large scope and ways that improvements based on symbolizes evolution. This topic is explains about effect and contribution to community and education also. The evolution that created from community and society can make community culture and socioeconomics in Malay household have change because of modernization. Based on another perspective sustainability of Malay traditional food make contemporary cooking is change because of it (Ismail et al., 2013; 2015). More worse when sustainability of the Malay traditional food also from time to time it almost disappear and forget especially younger generation right now. It also can give effect to institution such as research can give academic field new knowledge on how to see the effect of modern technology that in world today can make or change the Malay traditional food that chef in Malaysia cooking based on devising and cooking technique. Human mobility also can change and modern technology especially in this topic can create awareness between customer and business itself. It happen because when customer or people know about right handling cooking method automatically awareness about right cooking method can spread and people can know and if interest can join slot to cooking practise.

## 1.5 DEFINITION OF TERM

### 1.5.1 Malay traditional food

Malay customary food sources are appearances of the Malay nationality, which is wealthy in custom and culture. It is noted for its strong, hot, and fragrant flavours got from the utilization of various spices and flavours, and the cooking system is one of the fundamental elements that recognize Malay conventional food (Amira & Artinah, 2015; Ismail et al., 2015; Sharif et al., 2016). Customary way of assembling or potentially handling that has been passed down from one age to another by oral practice or alternate ways is as yet utilized today Trichopoulou et al., (2006) Malay cooking, especially in Malaysia, Indonesia, Singapore, and Brunei, is comparable since it is slipped from a similar root.

Malay food is quite often permissible. Malay food is unmistakable; regardless, it has been affected by different societies like Arab, Indonesian, Thai, Portuguese, Chinese, and Indian. Ainuddin, (2013) arranged Malay food into five classifications: wealthy in spices and flavours; coconut milk is a critical part; by and large hot; meat is often cooked with a thick sauce; and singed fish and shellfish are generally prepared with turmeric powder (Ainuddin, 2013).

Rice is eaten with pretty much every Malay fundamental course, and it is additionally the staple dish in numerous other Asian countries like Indonesia, Thailand, Brunei, and the Philippines. The province of Kedah is known as the nation's rice bowl or *jelapang padi*, representing around half of Malaysia's absolute rice yield. The significant dinner is non-glutinous rice, which contains amylopectin. Interestingly, glutinous rice is solely used to make desserts in Malay culture (Basan et al., 2011).

The mystery behind the uniqueness of valid Malay food is the utilization of spices and flavours with exceptional conventional hardware and cooking strategies. Before, fixings were essentially gathered from the patio and the forest, which made the Malay cooking such a fascinating culinary encounter. Forty years prior or around 1970 to 1980s, the Malay people group lived dominantly in provincial region and engaged with farming exercises, with just a little piece associated with the advanced financial area (Embong, 2002).

## 1.6 SUMMARY

This section has inspected the scenery of the review, the issue explanation, the exploration points, the examination question, the significance of the review, and the meaning of watchwords.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.0 INTRODUCTION**

Malaysia has four types of Malay sub-ethnic groups in peninsular Malaysia that show the origin of Malays. It consists of Malay Kelantan, Malay *Minang*, Malay Javanese, and Malay *Bugis*. Subsequently, these four Malay sub-ethnic groups were separated into three different groups, namely Malay *Minang*, Malay Javanese, and Malay *Bugis*. These groups have a close genetic relationship with the Indonesian population and that show a common history while Malay Kelantan is genetically different from other Malay sub-ethnic groups (Hatin et al., 2011). Generally, the population of Malay *Minang* is in the western of Peninsular Malaysia which is Negeri Sembilan. Besides, Malay Javanese and Malay *Bugis* are in southern parts such as Selangor and Johor. At the same time, Malay Kelantan is the Malay population in the north-eastern regions (Embong et al., 2016).

Abdullah et al., (2021) stated that traditional food in Malay society is inherited continuously from generation to generation. The Malay traditional food is an important asset among Malaysians and especially in Malays. Malay cuisine is unique and special combinations of traditions from all over the region (Raji, 2017). For example, the dishes of *rendang daging*, *serunding*, *nasi lemak*, *nasi tomato*, *pajeri terung*, *tapai*, and so on. Generally, the traditional Malay food is different from north to south and east to the coast because Malay food is largely influenced by different traditions of sub-ethnic groups in Malaysia (Ling, 2002). However, most Malay traditional food shared similar usage of spices and ingredients, which can be seen extending with many grown local ingredients of different spices, and herbs. It can be proven through the preparation and methods of cooking, availability, and uses of the ingredients such as ginger, turmeric, chillies, lemongrass, dried shrimp paste, and others (Evaland, 2011).

Nowadays, there are technological advances in the kitchen area that have brought new changes to the food industry. As a measure of better preparation and cooking, the use of



modern equipment has been identified in the industry. In addition, the application of modern technology also assists Malay cooks in changing traditional methods of cooking to a modern environment that helps to easier the cook processes and speed up the time from cooking (Zahari et al, 2011). Nevertheless, Short, (2003) explains that modern technology can directly affect the human ability to cook. This is because traditional food practices may be increasingly lost due to the modernization of the foodservice industry such as in hotels and restaurants (Zahari et al, 2011). Despite the use of modern technology and modern equipment, there is a convenience food that brings a major impact on Malay traditional food, particularly in terms of food ingredients. For instance, the convenience food such as curry powder, chilli powder, turmeric powder, chilli paste, and much more (Rahman et al., 2018). As a result, convenience food helps to reduce some tedious preparation methods, such as cleaning and grinding the food ingredients (Sharif et al., 2016).

## **2.1 DEPENDENT VARIABLE**

Variables are defined as something that has different quantities or qualities. Dependent variables are the variables examined by a researcher. Independent variables are dependent variables that affect dependent variables. Mixed variables are defined as interruptions caused by other variables.

### **2.1.1 Modern Cooking Technology**

During the 20th century, more and more technologies enabled faster cooking, and employees no longer had to stand by the oven all day long. Refrigerators and ovens were standard in all homes by the 1950s, turning middle-class mothers at home into cooks, cleaners, and babysitters. The presence of cooks and maids was considered a sign of prosperity at the time. In the 1980s and 1990s, microwaves became the next major factor in the process of modern cooking technology. This ingenious device thawed, heated, and even cooked some food in a fraction of the time spent in the oven (BuildDirect, 2016). Modern cooking techniques, on the other hand, are more than just "better and faster heating methods." There are also odor control, smart timer and temperature control, gas and electricity efficiency, and induction stove. It may seem like a small change, but it has a big impact on the quality of the meals you cook every day.

The food production and service, is encompasses complicated procedures such as preparation, cooking, distribution, and serving, is undergoing a new revolution. Many of these operations are already routinely performed by robots, and in activities requiring speed, uniformity, cleanliness control, and high levels of repetition, they almost always outperform human workers (Court Williams, 2018). Modernisation, on the other hand, has resulted in the availability of a wide range of convenience foods as well as sophisticated cooking equipment that can help speed up the cooking process. This is due to the fact that traditional Malay cuisine featured a variety of cooking methods, including *menumis* and *menyangai*.

Due to their complex cooking processes, any of the aforementioned methods can take a long time to prepare. Many Malaysians' lifestyles have changed as a result of this. Those who like a fast and simple lifestyle will opt not to make Malay traditional food from scratch, and in the worst-case situation, they may choose not to cook Malay traditional food at all. Modern technologies can aid in the preservation of Malay traditional cuisine. According to the findings, convenience food is a good indicator of the Malay traditional food's survival. Because of its rigorous preparation and cooking processes, Malay traditional food might be missed if convenience foods were not used (Rahman et al., 2021).

However, it is considered that technological growth has irreversibly damaged the huge ethnic festival culinary treasures. As a result, technology is believed to have influenced the development of ethnic festive foods and food types in Malay, China and India. Ingredients, equipment, and cooking methods may also be altered during the preparation process. As one of the informants pointed out, the growth of technology has resulted in a wider range of modern cooking equipment. "This technology includes additional ovens and ovens, rice cookers, frying pans, steamers, freezers, refrigerators, vents, grinders, food processors, toasters, chopsticks, bowls, pots, and others". She explicit "our festival delicacies are becoming easier to prepare" (Muhammad et al., 2018).

Short, (2003), on the other hand, stated that modern technologies have a direct impact on people's ability to cook. According to Li et al., (2004), the modernization of the catering sector in commercial production environments such as hotels and restaurants has endangered traditional culinary practices, as research of (Zahari et al., 2011). Overall, it may be concluded that chefs' reliance on modern technologies may be contributing to the loss of their cooking talents. Despite using current equipment and technology Engler-Stringer, (2010), it

has been hypothesized that changes in cooking skills are a direct result of increased reliance on processed foods (Ismail et al., 2013).

## **2.2 INDEPENDENT VARIABLE**

### **2.2.1 Taste**

The key to genuine Malay food's peculiarity is the utilization of spices and flavours related to specific customary hardware and cooking strategies. Fixings were generally acquired from the terrace and the timberlands previously, which made Malay cooking such an interesting culinary encounter. Forty years prior, or around the 1970s and 1980s, the Malay people group was fundamentally provincial and occupied with rural pursuits, with simply a small rate working in the contemporary financial area (Embong, 2002).

As per Ismail et al., (2015), the development of Malay country social nurseries in the past shows its huge inherent and intellectual worth through utilitarian characteristics like food, medication, beauty care products, and shade. The motivation behind customary Malay nurseries in networks is to give food to the local area. Plants and organic product trees are fundamental in Malay society for financial help by giving food to family utilization and local area sharing. Malay progenitors made food varieties and plans from regular materials that developed plentifully around their homes. This is steady with Goffard, (2005), who demonstrated in his book "The Language of East and Southeast Asia" that the Malay are generally provincial individuals who stay alive on fishing, cultivating, and rice creation. Due to the bounty of neighbourhood assets in our country, it is practical to make rich, delectable, novel, and remarkable cooking (Hamzah et al., 2013). This brings up the issue of whether the nearby dinners served in Malaysian lodgings are simply to fulfil request or to stress the inventiveness of the dishes. To put it another way, originations of valid ness are habitually equivocal and conflicting (Beer, 2008). In the review, Mohammad, (2011) recognized crafted by Sukalakamala, (2004), and a charming seeing as arisen: "most clients never see the genuineness of a food." They probably would not have the option to differentiate among customary and Western-style blended food." The absence of inventiveness may be ascribed to the development of new innovations and underlying changes in the arrangement of conventional Malay culinary preferences for inns. To be sure, the innovation of conventional food flavour has logically been impacted because of the adjustment of food rehearses by the

Malay culinary expert in business kitchen producing at the inns being scrutinized. As indicated by Zahari et al., (2011) in his review fair and square of modification of ethnic local food in Sarawak, "the adjustment of food had caused many changes in their food tastes, readiness, parts, plans, systemic methodologies, and furthermore the surviving eating politeness and other related issues."

Short, (2003), then again, uncovered that contemporary innovation straightforwardly affect individuals' capacity to cook. Hence agreeing Li et al., (2004), customary food taste rehearses are nearly being lost inferable from the modernization of food administration areas in the business fabricating climate like lodgings and eateries. This is supported by Zahari et al., (2011) study. Generally, this may be portrayed as an excess of dependence on contemporary advancements might add to weakening in culinary taste and skill among cooks. Besides, Engler-Stringer, (2010) expressed that globalization impacts, changing assembling and handling strategies, the development of prepared handled/arranged food varieties, and an increment in take-out dinners are generally key motivations behind why tastes are changing (Lang and Caraher, 2001). At the same time, Stead et al., (2003) affirmed that exceptionally low food useful abilities may hinder an individual's ability to deal with essential food taste. This is as opposed to the way that Malay food needs extraordinary cooking abilities to set up the customary feast, since it involves a ton of tedious food readiness. These understandings show that future innovation might lessen the need for prepared work in industry because of the globalization cycle.

Regardless, Martinez, (1987) battled that food varieties, such as living things, are touchy to changes. This technique concerns the actual supper, yet in addition its flavour. For instance, 'creolization,' which started with one food taste and advanced to at least two foods taste, set up another culture when they showed up in America (James, 1997). As per Micheal, (2000), societies are continually advancing, and these progressions are reflected in food and dietary patterns. Cwiertka, (2000) found that industrialization, urbanization, and modernization affect the creation and utilization of conventional food in Japan, and that this effect is fundamentally associated with social change. Sobal, (2000) characterized social elements as enormous scope social changes. He contended that food and dietary patterns, just as cultural patterns, have been alluded to in an assortment of ways, every one of which gives an extraordinary perspective regarding the matter.

### 2.2.2 Texture

An exploration directed by Manderson, (1981) on conventional food convictions and life occasions, which focused on the traditions of Malay townspeople in a couple of states in Peninsular Malaysia, found that the Malay individuals in the *kampung* still clutched customary thoughts and information. Zahari, (2011), who explored Malay food courses in Malaysia, gave subsidizing to this review. Customary practices can be seen through *kenduri kahwin* (marital functions), which include the arrangement, cooking, serving, and utilization of food and is viewed as a public undertaking in the town or *kampung* when individuals from the local area volunteer their time and energy to help the wedding host. Notwithstanding, because of the multiplication of cooking administrations, especially in metropolitan regions, the customary food ways practice that has for quite some time been connected with Malay society is seldom seen.

As of now, it is hard to track down the table help style in Malay weddings, since it has been superseded by the smorgasbord administration style (Zahari, 2011). Many individuals in our contemporary day have lost the peculiarity of cooking abilities and practices in Malay food that our progenitors passed down to us. As per Nor et al., (2012), new ages have ignored Malay conventional dietary propensities, which are being supplanted by comfort food items. As per the review, progress and unlimited data innovation are thought to affect changes in food utilization and propensities. In spite of the fact that there is modernization in the eating customs, the qualities connected with other Malay traditions saw by the family and the remainder of the Malay people group get by right up until the present time.

Food, similar to living things, is delicate to changes or change Martinez, (1998). A transformation through a quick industrialization has been demonstrated to affect it and to be fundamentally connected to social change (Cwiertka, 2000). As indicated by Gillette, (1997), different social modifications in the production and dietary admission or food ways, especially customary food varieties, are creating, and this is for the most part related with modernization. Modernization impacts day by day culinary practices, yet in addition conventional celebrations, festivities, and functions, especially weddings. The food practicality thought, which incorporates three viewpoints like time, actual energy, and mental energy, makes a huge commitment to the change or modifications (Buckley et al., 2007). They are the method involved with aging significantly, changing private home constructions, expanded female workforce interest and longer working hours, purchaser thriving and

procedures proprietorship, a shift toward better eating, a craving for various disclosures, independence, contracting cooking abilities, the summary of conventional taking care of times, and sensible cost (Sheely, 2008). Modernization essentially affects food creation, handling, and conveyance Sobal et al., (1998) and Sobal, (1999). Therefore, the present circumstance has affected and controlled the advancement of territorial and worldwide food creation frameworks, which are not just a technique for improving wholesome prosperity yet additionally of supporting financial development by expanding purchaser interest (Jussaume et al., 2001).

Modernization is likewise an underlying movement that incorporates innovation headway and material use (Inkeles and Smith, 1974). Sobal et al., (1998) and Sobal, (1999) observed that modernisation fundamentally affected food creation, handling, and dispersion. (Rogers, 2005) concentrated on the issue as a feature of the subject of gear substitution despite steady innovative advancement. She recognized two types of specialized headway: spasmodic and consistent innovative advancement. The broken mechanical advancement is addressed by bounces in progress with each new vintage appearance, while the constant innovative change is addressed by continuous improvement with each arrival of a similar vintage. Sobal, (1999) commented on the progressions that have happened in the area of food and beverages, which he viewed as one of the most confounded activities inside the lodging business.

As indicated by Gillette, (2005), a few mental changes are going on in food readiness and utilization, and neighbourhood food utilization practices, prominently of customary food sources, have been decreased, which is for the most part related with modernization. Food changes or changes are likewise affected by new utilization designs, which Miele, (1999) characterized as the foundation of an article food circuit and the production of another burning-through culture between shoppers, which adds hardly to the changes. Two substances of work were made because of her studies. The one is worried about the globalization of the agri-food framework, while the second is worried about the social communications and social types of the food changes that have come about.

According to Li et al., (2004), a couple of conventional food surfaces are on the edge of termination, in spite of the fact that modernizations benefits food businesses, especially in ruined places, and proposes that a greater amount of them require some change with the current of the contemporary world. They were, be that as it may, thinking at it from the

outlook of good eating rehearses. As per Bermudez & Tucker, (2004), the supper surface of old people of each ethnic gathering presents issues, including expanded wholesome necessities. This is because of physiological changes related with maturing just as the neurotic outcomes of a few constant diseases. They stressed that dietary patterns are affected not simply by physiological necessities, food accessibility and choices, yet in addition by cultural convictions, spread of information, and fundamental requirements, for example, food, which is additionally impacted by monetary circumstances.

### **2.2.3 Appearance**

Furthermore, our research is mostly about the effect of modern technology that in world today can make or change the Malay traditional food that chef in Malaysia cooking based on devising and cooking technique. This topic is show and tell us about the impact on how the change and different plus a lot of perspective and opinion about the modern technology that using. Dependent Variable actually it separate into dependent variable and it focus to modern cooking technology and independent variable is about taste, texture, appearance and other important things. Our research is basically telling about on how modern technology that in world today can make or change the Malay traditional food that chef in Malaysia cooking based on devising and cooking technique is totally have different opinion about it and the aim to this research it focus on each part and detail explanation about this topic is our main priority to overcome the problem that exist. Thus, our research focus on independent variable and dependent variable but in this explanation it more about discussion independent variable such as taste, texture, and appearance but I just want to explanation about the appearance based on above main topic. A study by Yoshino, (2010) in modern economic, the Malay food has exposed to modern technology and that why because of have educated people in past and Malay people is included and work to get money to live such as teacher. Uniqueness of Malay food actually it based on traditional equipment and cooking methods it clear show that independent variable have difference and change because of traditional equipment and cooking methods and modern technology is just modern era that make human life more easily and because of change of time. Before go further, based on Verywell Mind, (2020) it seem everyone must know about the definition of independent variable is exist because this research want to show how independent variable is manipulated and how its change based on the experiment or research outcome. When independent variable is change, dependent variable can easily to measure to see the effect of dependent variable analysis. Other else, the appearance definition also must know because it the basic things that

must remember before further in other explanation. Appearance meaning is the way that someone or something looks such as how the look of the Malay traditional food situation, style of devising the food, and so on that telling us about how the look that can make it attractive.

Moreover, the traditional Malay foods are described about how the individual thinking or opinion about their own perspective based on the traditional Malay foods itself. Malay traditional foods is across the culture and races in Malaysia because traditional foods belonging to all people and unity because of foods and so on. This research is explain about appearance and based on the topic the appearance mostly discuss about Malay traditional foods look in inside and outside on how the Malay traditional foods to maintain and sustain the originality, heritage, and authenticity and the probability of threat that come from modern technology impact. It more focus on before and after using the modern technology and cooking process foods preparation among chefs in Malaysia. The appearance of Malay traditional foods in Hotel or restaurant mostly not have appearance that focus in overall process and guest can see the authenticity of Malay traditional foods not as good as previous era. Tan, (2004) is saying uniqueness appearance of Malay foods by using modern technology also can see based on the equipment that modern technology using such as mixer and electronic equipment and it show in Malay traditional food preparation and cooking process it using traditional equipment because it can give different appearance based on modern technology, cooking skill, taste of food and so on. Impact of modern technology make chefs in Malaysia think two time about the appearance that only show totally authenticity and classic of Malay traditional foods and think this can catch and attract the demand and supply from guest or not. That is why the appearance is important but right now hotel and restaurant must target market that suitable to enter and chefs can using the modern technology to give the perfect appearance of Malay traditional foods. Sometimes the presentation or appearance of food in buffet such as lunch time, breakfast, dinner and so on did not show the best presentation or appearance that must needed in Malay traditional foods. It must keep the appearance that give best presentation of food and make customer can know and remember about this best experience although local guest or anyone out there must feel it.

However, according to Nor et al., (2020) the impact of modern technology can make Malay food have something lack especially in aspect of appearance because the appearance is very important to Malay traditional food because it show authenticity and uniqueness but



when convenience food have in hotel or restaurant now days it give the bad effect to appearance of Malay traditional food because present day it show people more prefer convenience food compare to Malay traditional food and it because appearance, taste, ingredients, food preparation, cooking process and other else factor. Another else, appearance of Malay traditional foods preparation and cooking process also change because of unlimited information technology and modern technology itself that give the impact to appearance of Malay traditional foods that chef in Malaysia prepare. In other perspective it show the original appearance is still maintain until today but because of modern technology its influenced a little bit. Exposed of the lot of modern technology and modern equipment can make people more demand about processing food and it based on the study from Engler-Stringer, (2010) that saying this is actually true because modern technology and good cooking skill make demand for Malay food still exists until today. The evolution of globalization and modern technology can create other new dimension about how globalization can change the processing method, cooking process, traditional food preparation, appearance of dishes because something new such as the uniqueness is happen when modern technology influenced the development of food process, take-out meal, and so on (Lang & Caraher, 2001). This impact is give uniqueness to Malay food appearance because mostly their using the modern technology preparation their dishes and the appearance can more interesting that why Malay household and restaurant can notice the uniqueness of appearance is happen because of globalization and demand from food industry all around the world is increase because of that. Moreover, although everyone know mostly cooking method of Malay traditional food preparation and cooking process is quite boring because it involved a lot of step but it give the best direction about the uniqueness when using the modern technology in cooking preparation because the uniqueness of appearance not only about the benefit by using the modern technology but in another perspective it more to banish the skilled labour and make the uniqueness of Malay food is variety such as have great appearance of Malay traditional foods because modern technology have giving the same function to solve the problem exist in kitchen and so on.

Another else, uniqueness of appearance of Malay food by using the modern technology can be seen in this aspect such as based on the study by Zahari et al., (2011) saying modern technology that give great features and positive impact of evolution to the kitchen or Malay food is something common in modern era. It is because the development of modern technology in the market right now is very thrives and it show positive vibe to the

whole food industries inside the country and outside also. It means the appearance of Malay traditional foods can sustain until now because of the development of modern technology. The practise of modern equipment that be using by chef, Malay household, hotel, restaurant and other people can make this modern equipment actually give the spirit or great motivation to hotel industry to preparation the best equipment and great preparation with smooth cooking process without many problem that come. The main purpose can make appearance of Malay traditional foods more attractive is when using the modern equipment and it also can fulfil demand and supply from industry, customer, guest and so on. Thus, the uniqueness of appearance about dishes especially Malay food is by using the modern equipment because chef or Malay household can notice that modern technology right now can change from traditional cooking methods to modern technology and it very helping Malay household or chef to quick the cooking process, did not waste of time and make appearance of Malay traditional foods is look delicious and looks amazing.

The appearance of Malay food by using the modern technology is dishes or food that finish cooking can be serve in large quantities because modern technology function is to preparation food not only one person can eat but more people can taste the dishes and it show the appearance of food that it can eat for small of group and large of people can eat without to waiting in long time. That is why the attentiveness of Malay food is exists by using modern technology that helping dishes or food more attractive. Traditional food or modern food also can attractive because it give opportunity and freedom to people because the uniqueness is modern technology is make Malay traditional food preparation and cooking process more relevant and more systematic. The quality of food is guaranteed, appearance more interesting and still keep the original looks of Malay traditional foods without changed to many and keep the taste still delicious because when using modern technology the raw material like chicken, fish and fresh vegetables can put inside the modern refrigerator and guest can eat Malay food with happy feeling because all this things still freshness and this is the appearance that everyone want by using the modern technology.

### **2.3 CONCEPTUAL FRAMEWORK**

The main objective of the research framework is to show the relationship between independents variable and dependent variables can be illustrated diagrammatically.

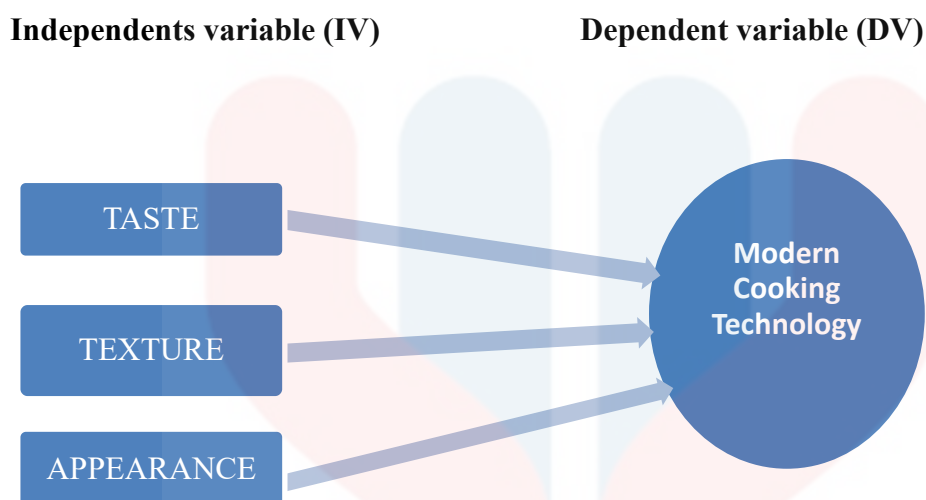


Figure 2.3: Research Framework

## 2.4 SUMMARY

In conclusion, this chapter describes what is dependent and independent variables are in this study. Modern cooking technology represents as dependent variable while taste, texture, and appearance show the independent variables of the research. Overall, a solid understanding of the variables is fundamental in the conceptualization and preparation of research.

## CHAPTER 3: RESEARCH METHODOLOGY

### 3.0 INTRODUCTION

Moreover, the intro about this topic basically same like other chapter because we want to make short intro about what we learn in this chapter. Basically intro is discussion about how this chapter can give the impact to us as researcher and student to get knowledge about what we study it. Another else, this chapter basically telling us about procedure that involved

in this research. Thus, this chapter that called as research methodology basically focus on population, sample size, research design, data collection method, research instrument, data analysis and how we measure of variable that involved to analysis the research methodology in overall. According to the Brink et al., (2006), research can be used in various ways to collect data or for checking the exploration discovery and study for explained the unclear phenomena of study.

The data that we get is very important in this chapter because it can be using to search and find the best result or outcome that we can take all the result to put into each procedure that involved data collection method to see the change of hypothesis aspect. However, population is basically not in one state but it more to among chef in Malaysia and the population that we find it all around in state in Malaysia because our topic set like that. Another else, the sample actually not a student of university or other else but it more to chef restaurant because it more convenient to collect the data and important information to put in our research. We notice that we using qualitative research compare to quantitative but because we using method like face-to-face interview it seem we must stick to qualitative because it just interview the chef experience, perception about our topic, and main purpose is to get the enough information to reader and can experience it (Seidman, 1937). Another tool that we using is application like SPSS and it function is to measurement the data and analysis the data in detail to get the result or outcome from the respondent that involved. Research methodology is doing because outcome of the result is reliable and valid to make the aim purpose of this research is achieved.

### **3.1 RESEARCH DESIGN & STRATEGY**

Research design is essentially a research program that set out the methods that researchers must follow in order to achieve their research objectives or test the hypothesis that they have created for their investigations (Daniel & Gates, 1999). The importance of study design is to ensure that evidence obtained from data can clearly and convincingly answer the research question (Vaus, 2001). There are two types of research design, qualitative and quantitative. Using case studies, we used qualitative research design to explore the meaning and understanding of complex social settings such as the nature of people's experiences. Quantitative study design, on the other hand, examines the relationships between variables by using numbers and statistics to explain and interpret the results.

However, there are six types of qualitative research design: theory-based research, case studies, historical studies, behavioural studies, phenomenological studies, and ethnographic studies. This study is qualitative in nature and is based on the study of basic theory. A theory-based approach is a specialized method that focuses on the development of theories. There are no pre-existing hypotheses or theories in this form of research. Instead, the hypothesis was formed after the evidence was analysed. Researchers who choose this research design will collect data through interviews, observations, record reviews or a combination of these methods (Norhisham, 2019). As a result, researchers seek to see if modern technology has an impact on traditional Malay food preparation and the cooking procedure among Malaysian chefs.

### **3.2 SAMPLING STRATEGY**

Inspecting is a methodology for picking individual different examining of the example to the populace inductive thinking and gauge populace qualities. In statistical surveying, a few inspecting procedures are generally utilized by scientists so they would not have to research the whole populace to get significant experiences

In this examination we will do non-likelihood inspecting. Non-likelihood inspecting alludes to examining approaches in which an individual's probability of being picked for test participation is dubious. There are a few kinds of nonprobability tests that specialists use. We will utilize critical inspecting and snowball examining.

Snowball inspecting, otherwise called chain-reference examining, is a non-likelihood testing approach in which the examples contain qualities that are hard to identify. This is a testing approach in which existing people allude to new subjects to be selected for an exploration project. We will utilize straight snowball testing. An example bunch is framed by one individual subject providing data on only another subject, and the chain proceeds with just a single reference from one subject. This interaction will be rehashed until an adequate number of individuals are accessible for the example. Snowball inspecting is utilized in our exploration during meeting to move toward the HR branch of the inn to get consent for take meet with culinary specialists. Critical inspecting, otherwise called purposive or legitimate examining, is a non-likelihood testing approach in which test individuals are picked exclusively dependent on the analyst's information and decisions. Since the analyst's aptitude

is utilized to make an example with this inspecting approach, the outcomes got are probably going to be exceptionally precise with a little safety buffer. Critical inspecting is utilized in our exploration to take meet with culinary specialists in inn.

In our examination about effect of present day innovation towards Malay customary food varieties readiness and cooking process among gourmet specialist in Malaysia, we will take meet a couple of respondents to get a few information. Our poll will be founded on our dependent variable which is effect of present day innovation towards autonomous variable which is taste, surface, and appearances of food sources.

The course of our meeting with our respondents will be assist analyst with getting some information that helped us complete the examination. The poll and the way explores will do is the method of critical testing and snowball inspecting which is from the example in non-likelihood

### **3.3 DATA COLLECTION METHOD**

According to Shamoo & Resnik, (2003), various analytic procedure because the research methodology is a provide right way such as drawing inductive inferences from data and discriminate the signal because the research is show what actually occurrence that happen based on analysis statistical fluctuations that present in the data or information provided. Another else, data collection method is separated into two such as primary data and secondary data. The research uses primary data for methods of data collection. Primary data is data that originally collected by researcher from the questionnaires for a project from first-hand sources or specific research purpose through various source such as experiments, interview, survey and so on. Otherwise, this research is basically telling us why primary data collection method is more suitable based on this research. Basically, primary data actually collected from original statistics such as sources that come from data that can believe because this data is considered the best type of data in the research based on topic provided. The data collection method that suitable and easy to doing is face-to-face interview with chef of hotel that prepared and cooking traditional foods. Face-to-face interview is a tool or method used in this research because it is the best way to reach the respondent, minimum cost, and it budget, safe time, and very accuracy of the result.

A questionnaire is applied to gather information on the taste, texture and appearance based on independent variable (IV). This questionnaire is based on our topic is called as the effect of modern technology that in world today can make or change the Malay traditional food that chef in Malaysia cooking based on devising and cooking technique. The questionnaires were distributed through face-to-face interview and collected data on selected chefs in this hotel and recoded the response and verbatim duplicated manually the data by the researcher. This is how to get the information and probably it did not losing the data and take noted all the important information to put in the research and the meaning not change with the original meanings. Dainty, (2006) it seem difficult to collect all the data during the conversation because of sometimes the respondent or chef speak very fast and it can missing a bit of data.

### **3.4 DATA ANALYSIS PROCESS**

In this research, before the process of the face-to-face interview is started, the researcher needs to provide a consent form for participants. It is required for researchers who conduct interviews using qualitative methods with adults and address insensitive topics. A consent form is an agreement between a researcher and a participant that outlines the responsibilities and roles by each other throughout the entire research process conducted and not just about someone allowing them to be involved in the research. Therefore, researchers must keep a copy of the consent form signed by both themselves and the participants. At the same time, participants must also be provided with a copy consent form as a record of the things they have registered (Ragavooloo & Chatfield, 2021).

Once the information and perspective about the research have been obtained from chefs, the information needs to be analysed to get detailed data about the modern technology that had greatly influenced the preparation and cooking processes of the Malay Traditional foods. In addition, there are numerous texts and resources on qualitative techniques, but these tend to be more concerned with assumptions, design, and data collection than with analysis. As a result, detailed instructions on how to conduct qualitative analysis are required (Clarke & Braun, 2013). This explains that thematic analysis should be used in this study. The process or methods of discovering patterns or themes within qualitative data are referred to as thematic analysis (Maguire & Delahunt, 2017). Simultaneously, thematic analysis is a powerful but flexible tool for analysing qualitative data that may be used to a variety of

paradigmatic or epistemological perspectives. It is an appropriate analysis method to understand the experience, thoughts, or behaviours across data sets. Therefore, many processes are involved in thematic analysis (Kiger & Varpio, 2020).

Since the data collection will be received through recording of interviews, the first theming analysis is preparing and organizing the data. This process can be worked by transcribing the recordings into written form to facilitate analysis (Bailey, 2008). All audio recordings must be transcribed verbatim, no matter how easy to understand the transcript when it is re-read. At the same time, lines of text should be numbered. When the transcript is finished, the researcher should read the transcript while listening to the recording and correct any spelling or other errors, match the transcript, enter notation for pauses, laughs, or discomfort appearances, enter any punctuation, such as commas and full stops, and include any contextual information that may affect the participant, such as temperature or comfort of the location (Sutton & Austin, 2015).

During the transcription and checking process, the researcher can review and explore the data by beginning to feel the participants' experiences of the intended situation and if appropriate, the researcher can begin to consider the other things for the next interview. In this way, one participant's narrative informs the next, and the researcher can keep going until no new information is received or saturation is reached. While going through the coding and theme process, it is critical to consider not only what the individual is saying but also the things they are not expressing during the process. For example, if there is a long pause, it might indicate that the participant found the subject difficult, or did the person simply decide what to say. The overall goal of the process from data collection to presentation was to tell the participants' stories using examples from their narratives, thus basing the research findings on the participants' life experiences (Sutton & Austin, 2015).

Sutton & Austin, (2015) stated that after all research interviews have been transcribed, checked, and explored the data, the next step to take is coding. The field notes gathered during the interview might be a great source of additional information to help with the coding process. The reason for this is that the period between the interview, transcription, and coding can produce memory bias in nonverbal contextual or environmental difficulties, which can alter data interpretation. In general, coding refers to the researcher's interpretation of subjects, issues, similarities, and contrasts indicated by participants' narratives. This method allows researchers to gain a better understanding of the world through the eyes of each participant.



Encoding can be done manually on a paper copy of the transcript, in the margins, or by highlighting and labelling sections of the text.

After performing the coding process, the researcher needs to review the code and revise or incorporate it into the themes. Themes refer to the incorporation of code from one or more transcripts to portray qualitative research findings in a coherent and intelligible manner is referred to as themes. The importance of going through this process is it possible to present data from interviews using excerpts from individual transcripts to illustrate the source of the researcher's interpretation. In this step, additional code from different parts of the transcript was included in the theme and its sub-themes. Thus, qualitative researchers need to take the theme and begin to review it based on the data. This process ensures the theme captures meaningful aspects of the data without losing any important details. Once the themes were validated to represent the data, the qualitative researcher moved on to the other phase of thematic analysis (Braun & Clarke, 2013).

Besides, defining and naming the theme is the next step of the theming analysis. In this step, the researcher needs to finalize the theme and rearrange the final definition to clarify the relationship (Kiger & Varpio, 2020). This procedure entails using the theme's labels and giving the theme a thorough name that reflects the relationship or meaning it conveys. As a result, each topic might be the title of a section in the report or presentation when the findings are collated for presentation. There will be a code for each topic, as well as samples from the transcript and the researcher's assessment of the theme's meaning.

Finally, the last step of the theming analysis is researcher needs to produce a report. For this step, after the theme was defined and named, the qualitative research began writing the final report by presenting findings and data interpretations of the study. Braun & Clarke, (2006) suggest that researchers need to state the meaning of each theme, as well as the assumptions that support it and the consequences of each theme. Therefore, the final analysis should tell an overall story about what is revealed by the many themes of the research topic.

### **3.5 SUMMARY**

In conclusion, chapter 3 explains about research design and strategies, sampling strategies, data collection methods, and data analysis processes. The study design used in this research that influenced sampling strategy, data collection methods, and the process of data

analysis is a qualitative method. Qualitative research can help researchers access the thoughts and feelings of research participants, which can allow for the development of an understanding of the meaning that people perceive as their experiences. Overall, the process of doing research using qualitative methods is not that easy and may require a complete rethinking of how research is conducted, especially for beginners who are familiar with quantitative approaches. Therefore, there are various ways to conduct qualitative research. The existence of this study has covered practical issues regarding data collection, analysis, and management. This study needs to have further reading because it is important to really understand the methods of accessing the feelings and thoughts of the public to enable the researcher to elaborate the story of the participants.

## **CHAPTER 4: FINDINGS AND DISCUSSION**

### **4.0 Introduction**

The collection and analysis of various data is the most important stage of conducting a research study. This chapter begins by presenting the informant's profile and general knowledge about the impact of modern technology on Malay traditional foods preparation and cooking processes among Malaysian chefs, prior to answering the study's objectives and questions based on the research findings. The study's goal is clearly stated: to investigate the impact of modern technology on Malay traditional food preparation and cooking processes among Malaysian chefs. The study's methodology is also clearly stated:

### **4.1 Informers Profiles**

For this study, the researcher conducts interviews with a total of six informants. The purpose of this study is to investigate the impact of modern technology on Malay traditional food preparation and cooking processes among Malaysian chefs who have been classified according to their age and occupation. The informants come from three different states: Johor, Kelantan, and Perak. They are all from Malaysia. On the following page, you will find detailed information about the informants who took part in this study.

It should be noted that the individuals interviewed for the study were in their twenties and thirties, with the majority of them being in their twenties or thirties. In this study, information from each age group belonging to the younger generation is critical because it

provides a more complete picture of the population. To be more specific, four informants were in their 30s and two were in their 20s at the time of the study. Given that the majority of those in their early twenties have relocated for work or study in other states. Furthermore, the researcher has already requested permission, and the subject has given their consent for the researcher to proceed with the interview.

Table 4.1.1  
Profile of Informants

<b>Informants</b>	<b>Gender</b>	<b>Age</b>	<b>Occupation</b>
Informant 1	Male	27	Chef
Informant 2	Male	28	Chef
Informant 3	Female	32	Chef
Informant 4	Female	33	Chef
Informant 5	Male	35	Chef
Informant 6	Male	36	Chef

Men and women were among the informants who belonged to that age group as well. Due to the fact that both genders were involved in this study, it further enriched the data and provided additional topics for discussion regarding their ethnic traditional food practices. For the reason that men and women play different roles, there are differences in opinion, information, and perspectives on a variety of topics between them. Although men are more involved in the preparation of food than women, as we all know, whether it's a daily dish or a traditional meal, men are more involved in the preparation of food in hotels.

According to Table 4.0, the majority of informants hold a Malaysian Certificate of Education (SPM), with 30 percent going on to pursue diploma or degree studies. As a result, it can be concluded that the vast majority of informants have completed at least SPM-level education. The majority of the other young generations from this ethnic group, on the other hand, emigrated to other countries at the same time.

A total of three states, namely Johor, Kelantan, and Perak, were used to select the informants. However, in order to provide more specific information, three of the informants are from Johor, one is from Kelantan, and one is from the state of Perak. They were chosen

because the majority of the chefs community lived in the area, and it is believed to be the site of their first settlement as a group in the United States. According to this information, all of the informants were chefs, which is an important characteristic for an informant to possess in order to achieve the study's objectives. As a result, there is a blending of cultures and customs in the community, which includes the practice of traditional food in the area.

#### **4.2 The Ideas Behind the Data Analysis**

Following the interview, the data is organized and analyzed in order to draw conclusions. During the interview session, the researcher began by listening to and converting all audio or video recordings into text format. This continued throughout the session. Converting content into text, especially when it comes from multiple sources, is a faster and easier way to extract value or meaning from a collection of data than listening to or watching hours of recorded content (DeSilva, 2019). Using appropriate language, on the other hand, is extremely beneficial to both parties when conveying and receiving information. Information is being received. All informants felt more at ease speaking in their native language, which resulted in the interview feeling less formal overall. The interview process is conducted in Bahasa Malaysia, and the transcription of audio recordings into text is also conducted in Bahasa Malaysia, before being edited and translated into English for publication. This step is taken solely for the purpose of ensuring that informants comprehend the subject under consideration by the researcher.

Furthermore, transcribing even a single interview session takes a significant amount of time. A transcript of an interview session takes at least 5 to 7 hours for the researcher to complete, depending on the length of the interview. It was necessary to transcribe a total of 13 interview sessions for this study, which could take up to a week to complete if done nonstop for the entire time period. The researcher has enlisted the assistance of a professional transcriber to assist with the transcription process. The transcription process became slightly faster, but the researcher also listened to the recorded version and edited the transcript by inserting missing words and connotations to ensure that the accuracy of the transcript was maintained. The original transcript in Bahasa Malaysia, as well as the translated transcript into English, was then given to the informants in order to obtain confirmation that the information provided was accurate and complete.

However, due to the re-installation of MCO, the researcher was unable to contact some informants again; however, some of them confirmed their participation via phone calls.

The data is further investigated by manually coding all transcriptions and using thematic analysis to determine which categories or themes should be investigated. When conducting thematic analysis, the researcher helps to streamline the process because it requires the researcher to organize their information. To identify ideas or generate new insights from the data, the researcher used the information gathered and stored by the interviewees as a starting point.

Thematic analysis is a straightforward concept that requires the researcher to examine the transcribed data and report on the themes that emerge. As a result, the data in this study were able to determine the theme through the use of inductive reasoning. As previously stated, the researcher begins the analysis process by thoroughly reading and comprehending the data collected. Once this is done, a researcher underlines the codes that have been assigned in which the informants' statements are highlighted with different colors to support the report.

More importantly, the researcher is guided by the study objectives while analyzing the transcribed data, in order to avoid bias or including code that is not relevant to the study, as those mistakes may not be possible to avoid when dealing with a live human being. As a result, in order to avoid reporting irrelevant codes and themes from the data, each code that appears is compared, and the final theme is reviewed several times before the final report is written and submitted.

#### **4.3 Informant General Knowledge**

With the informer's profiles already explained, the following section describes and discusses general questions about the impact of modern technology towards Malay traditional foods preparation and cooking processes among chefs during the interview session. As a result, the eight general questions are as follows:

- i. The authenticity of Malay food in restaurants with ready-made items and ingredients used in cooking. The authenticity is still maintained or change because food like chicken rendang and chili paste have chemical substances that change the taste of traditional foods. it cannot be called authenticity actually. What is your opinion chef?
- ii. Modern technology cannot compete with the taste and aroma of Malay traditional food because of what? and modern technology in the cooking process and traditional food

preparation is what the function to look Malay traditional food taste is still same or change because it more value if chef-prepared and cooked traditionally.

iii. This research explains appearance and based on the topic the appearance mostly discusses Malay traditional foods look inside and outside how the Malay traditional foods maintain and sustain their originality, heritage, and authenticity, and the probability of threat that come from modern technology impact. What is your opinion chef on how to maintain and sustain it?

iv. The appearance of Malay traditional foods preparation and cooking process also change because of unlimited information technology and modern technology itself that give the impact the appearance of Malay traditional foods that chefs in Malaysia prepare. Is that true or false chef?

v. The evolution of globalization and modern technology can create other new dimension about how globalization can change the processing method, cooking process, traditional food preparation, appearance of dishes because something new such as the uniqueness is happen when modern technology influenced the development of food process, take-out meal, and so on. It that true chef in current condition right now?

vi. It is true the appearance of Malay traditional foods can sustain until now because of the development of modern technology?

vii. What is your opinion chef a few traditional foods textures are on the adge of extinction and what actually make this happen?

viii. What your opinion chef about textures of Malay traditional foods is it the texture is more good and suitable if using the modern technology or using the traditional method of cooking?

#### **4.3.1 The authenticity of Malay food is still maintained or change**

The first question was about the authenticity of Malay food is still maintained or change because using ready-made items in cooking process. The authenticity of a food is in the way the cook prepares the cooking process. However, to prepare this traditional dish, each state may have a different way. By using finished goods in cooking, the originality will change little from using raw materials like the traditional way. It also depends on the person preparing it. The chemicals used in the cooking will not change 100% and certainly do not override the originality of recipes such as rendang and so on.

*If we use the original recipes and techniques that are traditionally practiced, the rendang cuisine can last for a week and can even last up to 2 weeks. However, if ready-made food items have been placed with preservatives that can affect the taste of Malay food from the taste of original Malay food, then it cannot be called authentic Malay food but it is called fusion. (Informant 1) Chef Zainuddin*

#### **4.3.2 The taste of traditional Malay food is still the same or changed by using modern technology?**

The second question is about modern technology cannot compete with the taste and aroma of Malay traditional food. Clearly innovation in the production of appliances in the kitchen has many advantages. Among them is helping to ease the task in the kitchen and make cooking time shorter. As a practitioner of Malay cuisine, some traditional recipes take a long time to complete. The way they cooked ancient times was different. They used to cook using firewood instead of a gas stove like now. Nowadays a lot of processed foods are even easier and simpler to cook.

*The taste of a dish will not change as long as we use the correct soup or standard operating procedure which means the right ingredients, the right taste and it also depends on the person who cooks or the chef who uses the modern technology. If he gets the right taste, the right aroma, he will not change unless the chef does not follow the original recipe, which means that the food will probably change. for example nasi briyani will be nasi minyak because it does not follow the original recipe. (Informant 5) Chef Bob*

#### **4.3.3 The way to maintain the heritage and authenticity of Malay traditional food**

The purpose of this section's question is to identify the way to maintain the heritage and authenticity of Malay Traditional food. The questions posed resulted clearly state that ingredients play a big role to ensure that the authenticity of Malay traditional food can stays maintained. The ingredients form part of the recipe and contribute to the special characteristics and taste of the food. Relatively speaking, traditional food ingredients are closely linked to tradition and nature and thus reflect a particular cultural identity. Food ingredients have useful functions in various ways such as flavor, mix, thickening and color, and have played an important role in highlighting the original taste of Malay food.

*Innovation and technology in cooking can help to simplify the cooking process and reduces time in the kitchen. Besides, using the selected ingredients can promise the production of*

*healthy and safe food and can maintain the appearance and originality of the food. (Informant 2) **Chef Alwi***

*As a chef, use fresh and good ingredients such as garlic ginger onion and other items to make sure the food taste is maintained. And make sure the quantity was equal and same for every food that was made. This helps your food taste maintain the same taste as well (Informant 3) **Chef Viknesh***

#### **4.3.4 The use of modern technology has an impact on the appearance of traditional Malay food**

The fourth question is about modern technology impacting the appearance provided by the chef. Usually, the first impression of food is visual, and much of our willingness to accept food depends on its appearance. Appearance is the combination of all the information about a product and its environment that reaches the eye. According to the data collected, the results from the informants have two different answers namely true and false. The informant's experience is documented, whether they ate, prepared, cooked, or bought traditional Malay food.

*In my opinion, it is false. The reason why I said like that is because some the chefs in Malaysia prefer old traditional recipes and ingredients to cook and they also cannot forget the old ingredients more than modern and information technology. They do not forget the history of traditional recipes. (Informant 3) **Chef Viknesh***

*I think it is right because the world is now sophisticated because there are Instagram, Youtube, Google, and so on. Now anyone at home who wants to cook the person just press the name of the dish on the internet or Google and will come out with various recipes and if you choose the wrong recipe then it does not matter if the recipe is correct then the food will be perfect. For example, a young chef will often refer to their superiors or a more professional chef, if the recipe that the professional chef says is correct, they can only use the recipe. (Informant 5) **Chef Bob***

#### **4.3.5 The evolution of globalization and modern technology create new dimension toward Malay foods preparation**



The evolution of globalization and modern technology can create another new dimension of how globalization can change processing methods, cooking processes, traditional food preparation, appearance of dishes because something new like uniqueness happens when modern technology influences food development, process, take-away meals, and so on. For example, to make chili sauce before the creation of meggi chili sauce, kimball chili sauce, and so on. In the old days, people cooked this chili sauce themselves using dried chili, sugar, vinegar, and that is actually called the master or mother of sauce. The chef then collaborated with meggi company, kimball company, by using the chef's recipe as well as help from modern technology to easily enter the industry and easy to market.

*Yes, modern technology can facilitate the work of cooks by using high-tech machines or tools in producing a food. In addition, this modern technology can save time because it can prepare food faster than traditional cooking. (Informant 2) **Chef Alwi***

*Yes of course the modern technology currently are too fast develop. The statement that the process can be different and i agree with that because previous time we didnt have all the pressure cooker and so on. (Informant 4) **Chef Alif Najmuddin***

#### **4.3.6 The appearance of Malay traditional foods can sustain until now because of the development of modern technology?**

It clear stated that informer can notice the appearance is also influenced the impact to Malay traditional foods because the main topic is mention about how we can sustain the Malay traditional foods without change it. The answer is right because informer give great explanation based on current situation that happen in Malaysia right now.

*Based on my opinion as a chef I think the appearance of Malay traditional foods can sustain because of development of modern technology because the development of modern technology can be using to produce or to make Malay traditional foods. This is consistent with Redman's (2019) that saying modern technology and income level is something similar and when income level is high automatically food practices can be difference and pattern of food consumption of people can influenced the appearance of Malay traditional foods. (Informant 5) **Chef Bob***



Figure 1: Take-away meals



Figure 2: Steamer cooker



Figure 3: Malay traditional foods



Figure 4: Chef Bob

#### 4.3.7 A few traditional foods textures are on the verge of extinction and what actually make this happen?

Due to the fact that chefs are using the most cutting-edge technologies currently available on the market, this is the case. Modern technology in factories and other current technologies, such as those found in supermarkets and food processing facilities make it feasible to produce large quantities of food in a short period of time. It is inevitable that there would be differences in texture when comparing the texture of a meal to the way it was traditionally cooked.

*This is because chefs now mostly use modern technology. The use of modern technology such as machines available in factories provides food in large quantities at once. Therefore, the texture of a food cannot match the traditional way of making it. (Informant 2 ) Chef Alwi*

#### **4.3.8 The textures of Malay traditional foods is more good and suitable if using the modern technology or using the traditional method of cooking?**

Conventional techniques take much too long to prepare a supper that improves the texture of traditional Malay cuisine, and current technology is not particularly useful in the preparation of traditional Malay cuisine, in my view. Using contemporary technology in the production of food is more aesthetically attractive than using old methods, which contrasts with traditional methods of preparation. Traditional recipes are the finest doctor and medication for keeping our bodies healthy and functioning properly. It's something that even our senior citizens like saying. To that end, we attempt to consume more traditional food items and learn more about what traditional cuisine is and how we can prepare it better than those that are produced using contemporary techniques.

*In my opinion, the traditional method takes too long to produce a dish that makes the texture of traditional Malay food is more good, while the use of modern technology is not very good for the production of traditional Malay food. Nevertheless, in terms of appearance, the use of modern technology in the preparation of cuisine is more attractive. (Informant 1) **Chef Zainuddin***

*Traditional recipes are the best doctor and medicine to keep up our body good. Even our old age people love to say it. So we try to eat the traditional ingredients of food more and try to learn more about what is the traditional food and how we can cook better than ingredients that are made by modern technique's. (Informant 3) **Chef Viknesh***

### **4.4 Research Findings**

#### **4.4.1 Introduction**

This chapter analyzes the information gathered from interviews with chefs in Malaysia. The researcher used the description and interpretation of the informant's responses to answer the research objectives and research questions.

#### **4.4.2 The authenticity of Malay food is still maintained or change**

A research question is a question that a study or research project wants to answer. This question is going to examine the problem of the authenticity of Malay Traditional food.

There is Malay traditional food in the restaurant is done by using ready-made items in cooking. Therefore, the question is to identify whether its authenticity is still maintained or changed because foods such as chicken *rendang* and chili paste have preservatives that might change the taste of traditional foods.

Generally, the term authentic is used to describe an item that is not a fake or imitation but is genuine. Authentic food is food (or drink) that does exactly what it describes, and what a person reasonably assumes about its character. Sims, (2009) found that the authenticity of local food consumption can be three ways which are objective, constructive, and existential. First, consumers consider local food to be authentic if it is locally produced or made. Next, the authentic relationship between food consumed and the place is socially built. Consumers feel the food is more authentic when there is congruence between their expected typical food experience and their actual experience at a specific location, including the atmosphere, the environment, the food itself, and the heritage associated with the food. Lastly, working with local food also play an important role in supporting authenticity by connecting consumers to places and people who make food. In other words, authentic Malay food is food that tastes the same as authentic Malay food.

#### **4.4.3 The taste of traditional Malay food is still the same or changed by using modern technology?**

This research question is aimed at the taste of Malay traditional food. This question is focused on why Modern technology cannot compete with the taste and aroma of Malay traditional food. At the same time, this question is going to figure out the function of modern technology in the cooking process and traditional food preparation of Malay traditional food whether the taste is still the same or changed. It is because Malay Traditional food has more value if chef-prepared and cooked traditionally.

Taste is a combination of several senses. The quality of the taste perceived by the tongue is important, but so are the smell, texture, and warmth of the food. The nose is responsible for "coloring" the flavor. Only when taste and smell are united can food have a distinct flavor. If the sense of smell is disturbed, such as by a clogged nose, the taste is often blunted. Taste sensations can be categorized as umami, sweet, salty, sour, and bitter. Malay food is generally strong, spicy, and aromatic, mixing the rich tastes of various herbs and spices to create a characteristic Malay flavor that can make people love to enjoy the Malay Traditional food.

#### **4.4.4 The way to maintain the heritage and authenticity of Malay traditional food**

The way to preserve the heritage and authenticity of traditional Malay food is for the university and the teaching staff to play a role in this matter. The current situation is that most of the teachers who teach in the field of cuisine have used modern methods in the teaching and learning process and do not teach the original way of making traditional Malay cuisine. Therefore, if we want to maintain the authenticity and heritage of traditional Malay food, educators need to educate and teach the correct cooking methods from the beginning.

By using innovation and technology in cooking, it simplifies the cooking process and reduces time in the kitchen. By using selected ingredients can promise the production of healthy and safe food and can maintain the appearance and originality of the food. And make sure the quantity is the same and equal for each food made. This helps the taste of your food maintain the same flavor as well. The most important to keep all recipes and taste same like old school is actually needs to implement to our generation. If our generation did not know how to cook like previous generation, absolutely the taste will be different.

#### **4.4.5 The use of modern technology has an impact on the appearance of traditional Malay food**

The use of modern technology will affect the appearance of traditional Malay food depending on how the person uses all the technological facilities. It can be a new concept and a common identity of how to represent traditional Malay food. With the advancement of technology now, everything is at your fingertips. There are various recipes on the internet that are used as reference material for a cook nowadays. For example, if a young chef, he will often refer to his superiors or a more professional chef, if the recipe that the professional chef says is correct, he can only use the recipe. Nowadays all the time using technological references is not because of the teachings of our mothers and grandmothers in the past.

#### **4.4.6 The evolution of globalization and modern technology create new dimension toward Malay foods preparation**

The evolution of globalization and modern technology can facilitate the work of cooks by using high -tech machines or tools in producing a food. In addition, this modern technology can save time because it can prepare food faster than traditional cuisine. In addition, modern technology can save time and will not let customers wait too long to receive food orders. Modern technology is now growing too fast. The fact that the process can be

different and because previously the cook did not have all the pressure cookers and so on. It means from traditional times to modern times now. What a chef should have is that he or she can cook a variety of recipes, can manage as well, is good at making plans for meals, and handles food in large quantities with a large staff. Thus, the evolution and modern technology has provided benefits and convenience to cooks in various ways and at the same time can advance the food industry in the present times.

#### **4.4.7 The appearance of Malay traditional foods can sustain until now because of the development of modern technology?**

The next research question is about the change and modification of traditional Malay cuisine in hotel commercial kitchens because of that question. It is true the appearance of Malay traditional foods can sustain until now because of the development of modern technology?. The answer is yes because the impact of modern technology towards Malay traditional foods basically can influenced the appearance because of some factor. For example, chefs saying the appearance must be staying because of but in term of manufacture by using traditional equipment it can become extinct because of development modern technology that very strong. In cuisine side I think people can notice the benefit of modern technology can support the Malay traditional foods to become more better based on changing times right now. So, the change and modification of traditional Malay cuisine is very useful to make Malay traditional food can more commercial in the market in Malaysia.



Figure 5: Nasi Briyani



Figure 6: Chicken rendang

#### **4.4.8 A few traditional foods textures are on the verge of extinction and what actually make this happen?**

What do you think chefs some traditional food textures are on the verge of extinction and what exactly is causing this to happen?. This is the question that I as the researcher ask to informer because based on this question it can related to research question above that saying Malay cooks' prior hotel procedures. "In the Malay kitchen previously, everything was prepared from scratch." However, there are many instant pastes, premix goods, and instant coconut milk available currently. So, whatever portion of this is considered traditional!?"and the informer explain in detail based on his experience and the answer is very related with current condition right now because it extinction is something we cannot to hold and we must know how to overcome it to become more better. The informer also put extra information about this question and also related with research question because this traditional food texture is almost extinct now because we are in Malaysia and not only Malaysians but people from Thailand, from Singapore and so on. When these foreigners enter Malaysia they will bring their own food to Malaysia. For example, living in Malaysia will bring in dishes from Pattani such as nasi goreng pamprik, tomyam and others.

The texture of Malaysian food is extinct for example nasi goreng kampung in Malaysia and in Thailand there is also nasi goreng kampung and originally nasi goreng kampung in Malaysia uses sambal shrimp paste (sambal belacan) and the color of sambal shrimp paste is red while the Thai people enter Malaysia nasi goreng kampung is white because they do not use sambal shrimp paste but use chili rice tap. The village fried rice also has many colors such as white, black, green and others. Why does it happen because of the influence of foreign countries. Research question also similar with this answer based on informers opinion and his experience as the chef.



Figure 7: Instant paste chicken rendang



Figure 8: Instant coconut milk



Figure 9: Premix goods

**4.4.9 The textures of Malay traditional foods is more good and suitable if using the modern technology or using the traditional method of cooking?**

The question is what your opinion chef about textures of Malay traditional foods is it the texture is more good and suitable if using the modern technology or using the traditional method of cooking?. This question is very suitable to ask because texture of the Malay traditional foods is very important to traditional foods preparation and cooking process. The texture must be soft, easy to eat, good texture that each traditional foods must have and chef also give their opinion about modern and traditional have their different texture of foods because research question also mention about The question asked the ethnic informants, do you think current technology has influenced how your ethnic feast is prepared and consumed, and if so, how much has it changed the way they are prepared and consumed? Ethnic feast is prepared based on each ethnic culture and cooking preparation so current technology method



is different to apply and suitable with Malay traditional food. It can be influenced based on how we use the current technology and for example the way they are prepared and consumed is basically based on the texture of the Malay traditional food itself. Malay traditional food texture is more difficult to do and more unique compared to modern food that uses modern technology that has a different texture.

Based on my opinion, I think the textures of Malay traditional foods are actually better because they use raw materials and basic cooking techniques to cook the dish or food. For example, fish with three flavours: if we use the method of Malay traditional foods, it actually takes a lot of time because of that the texture of the fish is of higher quality and more delicious to eat for the customer. It means modern food is more suitable if we use modern technology compared to using traditional methods. To me as a chef, I think it follows the current situation right now that there is a lot of great technology because if I ask me as a chef, traditional methods can make textures better because they use raw materials and don't use any instant powder or instant paste. This is the explanation in more detail about which is more suitable: using modern technology or using the traditional method of cooking to make the perfect texture of foods and have the same level as 5-star hotel foods. Chefs already give their own opinions about texture that they want and the impact on the preparation and cooking process among chefs is absolutely easy to choose which is the best texture. This statement is also related to Sharif et al. (2018), who says that cooking preparation and demonstrations can lead to cooking practice and that young generations can know it and not only young generations but next generations also can practice it. Based on the research question above, it seems analysis to get the right information is quite difficult because every chef as an informant has their own opinion based on their experience as a professional chef in a 5-star hotel.



Figure 10: Folk banquet for Kedah people and Malay, Chinese and India ethnic prepared and consumed

## CHAPTER 5: CONCLUSION

### 5.0 Introduction

This chapter discusses the findings obtained, covering the limitations and recommendations for future research, followed by the study's conclusions. Based on the study's findings described in Chapter 4, a specific discussion is continued in this section to explain the understanding of the impact of modern technology on Malay traditional food preparation and cooking process. The following section discusses the findings' implications from the standpoints of practical and academic knowledge. Following that, the researcher thoroughly addresses the study's problems and limitations that may arise from various angles before making conclusions and recommendations for future research.

### 5.1 Summary of Analysis

According to what was said before, the major objective of this research is to evaluate the influence of contemporary technology towards the preparation and cooking process of Malay traditional meals among chefs in Malaysia. The study subject is being questioned about their traditional food knowledge as well as what motivates them to carry out the practice. The results were collected via the use of three different methods: observation, interviews, and a survey of the relevant literature. Therefore, the researcher conducts a theme analysis based on the aims and questions of the study to collect the results of these qualitative studies, and then discusses them in this part. The first research question, which can be seen shown below, is used to kick off the conversation.

***RQ 1: The authenticity of Malay food in restaurant with ready made item and ingredients used in cooking. The authenticity is still maintain or change because food like chicken rendang and chili paste have chemical substances that change the taste of traditional foods. it cannot called as authenticity actually. What is your opinion chef?*** (Ismail et al., 2013).

The results of RQ1 showed that technology is having an effect on traditional Malay cuisine among chefs. In order to create a concept about this topic, the informants' ability to

provide instances and descriptions linked to their traditional cuisine is essential. In point of fact, the assertion is correct. These days, most individuals prefer to utilize ready-made components in order to make cooking their meals as simple and quick as possible. Therefore, as a cook, my recommendation is that you strive to prepare the old traditional recipes and ingredients rather than using ready-made goods in order to make your cuisine taste delicious. In spite of the fact that the meal is served or available late, it is imperative that it be tasted and that more orders be placed.

***RQ2: Modern technology cannot compete with the taste and aroma of Malay traditional food because of what? and modern technology in cooking process and traditional food preparation is what the function to look Malay traditional food taste is still same or change because it more value if chef prepared and cooked traditionally.*** (Ismail et al., 2013).

RQ2 examines the ways in which meals prepared in contemporary and traditional ways have distinctively different flavors. Because, in addition to that, contemporary technology makes use of a greater variety of chemical components in order to make traditional foods seem appealing. Because of this, the flavor of the dish cannot be compared to the flavor of foods that are prepared with conventional components. It is possible that the flavor of dishes prepared using ready-made ingredients may be outdone if we are able to employ more traditional ingredients in their preparation. Because of the equipment and the ingredients, modern technology will never be able to duplicate the authentic flavor of traditional foods. For instance, the traditional way of cooking involves utilizing wood fire and taking your time.

***RQ3: The next question was concerning the Malay cooks' prior hotel procedures. "In the Malay kitchen previously, everything was prepared from scratch." However, there are many instant pastes, premix goods, and instant coconut milk available currently. So, whatever portion of this is considered traditional!?"*** (Ismail et al., 2013).

This is the RQ3 and it concerning the Malay cooks' prior hotel procedures. "In the Malay kitchen previously, everything was prepared from scratch." However, there are many instant pastes, premix goods, and instant coconut milk available currently. So, whatever portion of this is considered traditional!?". RQ3 basically tell us about to keep Malay traditional food is something difficult because to do the Traditional food must use the raw ingredients not using the instant paste, instant coconut milk and so on. Based on opinion from Galanakis (2019), traditional foods are determined and defined by the specific use of

ingredients for geographically identified areas, the traditional composition, and the types of production and processing passed down through the generations. It is early introduction about definition of traditional foods and this is the some of example that more detail based on originality of ingredient and cooking method and also different of preparation to prepare each traditional foods for 5-star hotel and for knowledge itself. For example, when these foreigners enter Malaysia they will bring their own food to Malaysia. For example, nasi goreng kampung in Malaysia and in Thailand there is also nasi goreng kampung and originally nasi goreng kampung in Malaysia uses sambal shrimp paste (sambal belacan) and the color of sambal shrimp paste is red while the Thai people enter Malaysia nasi goreng kampung is white because they do not use sambal shrimp paste but use chili rice tap. Thus, the originality based on chefs using the raw material based on characteristic for example is traditional food texture is almost extinct now because we are in Malaysia and not only Malaysians but people from Thailand, from Singapore and so on.

The researcher reviews the results of eight interview question in answering RQ3 is explain about the basic knowledge such as example Malay traditional foods that younger generations familiar and consume based on food that they often eat or are familiar with. Thus, the Malay traditional foods basically have some of famous foods that it very delicious and have a lot of history based on each storyline of the Malay traditional food. The young generations must know this type of food that they consume and this Malay traditional food or this example of food actually still available until today and young generations maybe know example of this traditional food. There is no denying that the young people in this community have a basic understanding of traditional Bugis food in places where they are familiar with certain types of food. Example of Malay traditional food is many and have a lot of famous traditional food that researcher can consume it. Example of the Malay traditional food is Chicken Rendang, Nasi Briyani, Bahulu, and so on traditional foods. This statement is consistent with Sharif et al. (2015), who state that most Malay youngsters, including Bugis, only recognize their traditional food by its name. The young generations also must know the traditional foods extinction have their own unique and the young generation mostly didn't recognize the name of traditional food and make chefs in 5-star hotel have own encouraged to development of cooking method and preparation about traditional foods to make everyone can know it.

The researcher actually notice and know the research question RQ basically based on analysis and summary on how the interview question must be related to the research

question RQ because when the 8 interview question is related the process to summary the analysis is more easy to explain because chef can notice the interview question (IV) is create to get the data from professional chef based on the impact of modern technology towards Malay traditional foods preparation and cooking processes among chefs in Malaysia. It clear stated research question actually separate into 3 Research Question such as RQ1, RQ2, RQ3. Thus, chef or informer can answer the question or answer the research question (RQ) based on what interview question (IV) asking. Eventually, it have a lot of question or different types of interview question chef must be answer because the variety of answer that chefs as informer give can make the data more perfectly and more fun to research in more detail and can overcome the problem that exist. Research question included 3 because the interview question (IV) actually same and based on question.

This study describes about appearance and based on the topic of appearance mostly discusses about Malay traditional food looking from inside and outside about how the Malay traditional food maintains and maintains its originality, heritage, and authenticity as well as the probability of coming threats. from the effects of modern technology. What do you think chefs on how to maintain and sustain it?. This is the research question that explain about IV question and the answer it very good because it can be apply to get the great combination of each data and easily can analysis it. The detail and more explanation about the RQ3 and IV3 is Chef threats are considered as comments or complaints when a chef cooks using modern technology, that is, using ready -made paste, using the oven and we just press the button and the cake is ready to be served. In the old days, chefs wanted to bake cakes using fiber and traditional cooking methods. For me, the threat is there, there will be complaints, and on average, complaints as an example of a chef who uses paste is actually not a chef. That means he has no originality because he uses the paste that has been prepared. For example, chef Ammar's Nasi Arab because he is the originator of the original Nasi Arab and to make it easier for others to cook Nasi Arab as well and created la paste. But the taste of the cuisine is the same, just complain as this chef does not use originality ingredients because he uses paste. If we say we want originality and as a really good quality and talented chef he will not use paste instead he will use raw materials such as onions, ginger, ceylon and so on the chef will only use original ingredients.

These findings align with O'Neill et al. (2019) that food practices, including traditional food preparation, are influenced by infrastructure availability and depend on the origin of the place, where it also symbolizes the characteristics and culture of a society.

Logically, the traditional foods more take a lot of process and time to preparation and to cooking it because of that it different compare to modern food and long cooking hours enable food to be cooked appropriately and make it more long-lasting. As long as a chef cooking using paste but tastes the same as the real food, he is still original even in terms of non - original cooking methods. If the original way of cooking is like frying onions first, add cinnamon and that is what is called originality. It means that cooking using the modern way tastes the same and cooking the traditional way tastes the same, that is what is called a really talented and quality chef.

***RQ4: The following question concerned the change and modification of traditional Malay cuisine in hotel commercial kitchens*** (Ismail et al., 2013).

Furthermore, another research question that researcher must explain in detail is RQ4 based on interview question is basically telling us the truth and process of the impact of modern technology towards Malay traditional foods preparation and cooking processes among chefs in Malaysia. The interview question is basically about IV4 about the appearance of traditional Malay food preparation and cooking process has also changed due to unlimited information technology and modern technology itself which impacts the appearance of traditional Malay food prepared by chefs in Malaysia. What is your opinion it is true or false it's a chef?. Eventually, this IV4 is very suitable and related with research question because it focuses on unlimited information that can make Malay traditional preparation and cooking process is influenced by the RQ4 is the following question concerned the change and modification of traditional Malay cuisine in hotel commercial kitchens.

This statement is similar to Zahari et al. (2011), who states that the researcher identifies modern equipment utilization as a catalyst for better cooking and preparation. It is true statement and explanation because the change and modifications can make the current information or unlimited information technology can create the modern equipment because of unlimited information. The different to the impact of modern technology towards Malay traditional foods preparation and cooking processes among chefs in Malaysia and chef in 5-star hotels must benefit it and manipulated the current information for the benefit to keep the advantages for the hotel and use it for keep 5-star hotel can use the traditional cooking preparation and method for gain profit for using both method modern technology and traditional preparation method based on current condition right now.

Summary of Analysis focuses on research question that mention a lot of data to change the weakness of appearance and change it for the strength for sake of profit. 5-star hotel must know about it because the unlimited of information can improvement a lot of Malay traditional foods preparation and cooking method to become more better for example traditional must be innovate because in sustain in market it must follow the trend and food lifestyle based on demand of customer. Sometimes the authenticity of Malay traditional foods more better if change it to become more better but not totally change because original Malay traditional foods have strong people behind that support it. Moreover, researcher also think it's right too, because the world is now sophisticated because there are Instagram, YouTube, Google and so on.

Last but not least, now anyone at home who wants to cook the person just press the name of the dish on the internet or google and will come out various recipes and if you choose the wrong recipe then it doesn't matter if the recipe is correct then the food will be perfect. Similar to Ismail et al. (2013), the cooking process becomes more accessible and faster, where cooking time can be shortened because of modern technology equipment such as the appearance of microwaves, food processors, and other advanced technologies cooking equipment. For example, if a young chef or amateur chef must often refer to his superiors or a more professional chef, if the recipe that the professional chef says is correct, amateur chef or professional chef can only use the recipe and the impact to the Malay traditional foods preparation and cooking process must be different because it change based on foods preparation, equipment, taste, texture of the foods, originality of foods maybe change a bit, appearance also different, modern and traditional foods using the different ingredients because of the impact that modern technology give.

***RQ 5 The evolution of globalization and modern technology can create other new dimension about how globalization can change the processing method, cooking process, traditional food preparation, appearance of dishes because something new such as the uniqueness is happen when modern technology influenced the development of food process, take-out meal, and so on. It that true chef in current condition right now?***

The RQ5 results show that globalization and modern technology can create a new dimension in the process of cooking traditional food. This is because technology can make it easier for cooks to prepare food quickly and expeditiously. By using high-tech cooking equipment, food becomes better quality and can be produced in large quantities.

***RQ 6 It is true the appearance of Malay traditional foods can sustain until now because of the development of modern technology?***

The RQ6 results show that the development of modern technology can maintain the appearance of traditional Malay food because the ingredients used to prepare food are the same. So, the appearance of food can also be maintained despite the existence of new technology. For example we can take Nasi Lemak. It's an old food and very popular in Malaysia. We can get the food anywhere. Even the modern technology has been made, the food taste remains the same. Not only Nasi Lemak, but some other foods like Asam Laksa all the taste is top notch when they use more traditional ingredients.

***RQ7: What is your opinion chef a few traditional food textures are on the edge of extinction and what actually makes this happen? (Ismail et al., 2013).***

RQ7 investigate the opinions of chefs in Malaysia regarding the texture of traditional foods that are becoming extinct. This aims to find out how far the texture of Malay traditional foods has changed over time. This is because changes in the texture of the food will affect the taste of Malay food itself. For example, traditional foods like dodol physically have a sticky, concentrated, and sweet texture. If the texture produced is different from the texture of dodol in the past, of course, the taste of dodol will not attract the interest of older generations because they prefer to enjoy the texture of food that they used to eat in the past. From this question, the chef will tell their opinion on the reason for the change in the texture of Malay food. They will use the experience throughout their work in the kitchen and their involvement in the production of Malay food itself. This will help to further explain the changes in the texture of traditional Malay food.

***RQ8: what your opinion chef, about the textures of Malay traditional foods, is the texture is more good and suitable if using modern technology or using the traditional method of cooking? (Ismail et al., 2013).***

Lastly, RQ8 explains the chef's opinion on the texture of traditional Malay food. This question is more detailed than the RQ7 question because it aims to find out whether Malay food becomes better and fits the texture by using modern technology or using traditional methods in cooking. This is because the use of utensils in cooking will affect the texture of traditional foods. For example, if a chef uses a blender in the production of ingredients to make traditional food, it will obviously affect the texture of the food, which is the texture produced is finer than the texture that uses traditional tools such as stone and mortars. With



that, the researcher will obtain information from chefs in Malaysia about the use of better equipment to produce Malay traditional food.

## **5.2 Limitations and recommendations for future research**

Every field of study has some clear findings and points of view that contribute to the body of knowledge (Marshall & Rossman, 2011). However, it is difficult for a study to meet the limitations influenced by the type of methodology, research design, and many other factors. Therefore, the existing limitations are given attention to see this study.

The first limitation identified relates to the methodological approach used. Not all chefs use modern technology to produce traditional food, but this study focuses on the impact of using modern technology on food among hotel chefs. This allows for a more thorough investigation of the effects of evolution and modern technology on traditional food preparation among chefs

On the other hand, the second limit revealed is getting confirmation from informants after the data were analyzed. Some of the informants could not afford it contacted again and not everyone was able to meet face to face. Honestly, an empirical investigation conducted through this qualitative study is very challenging because our country is in the midst of a pandemic Covid19. It is hoped that disclosure of these limits will be useful information for others researchers want to expand their research into this field. Therefore, both academically and practical implications will be discussed in detail.

## **5.3 Contributions and Implications**

The sociology and anthropology of food have benefited greatly from the findings of many past studies, which have made it possible for future scholars to investigate deeper and expand their knowledge in related subjects. Studies on the effect of contemporary technology on traditional Malay food preparation and cooking procedures in Malaysia among chef lead to theoretical and practical consequences, as well as affect its practice.

### **5.3.1 Theoretical Implication**

The results of an investigation of the influence that contemporary technology has had on the traditional methods of food preparation and cooking used in Malaysia among Malay women This work, in general, makes a contribution to the formation of notions and theories experimentally via an ethnographic and historical lens by relating current social challenges in food production and consumption systems. A profound comprehension, on the part of

Malaysia's chefs, of the influence that contemporary technology has had on the traditional methods used for preparing and cooking Malay dishes.

Their past knowledge of traditional meals is tied to the common examples of food offered, which cover the main dish, side dish, and sweet delicacies. In this sense, their prior knowledge of traditional foods is related to the common examples of food. Their degree of comprehension displays a worrying pattern difference, as some of them are already becoming ignorant of the cuisine that is typical to their culture. It is obvious when some of them are unable to offer more detailed information regarding the influence that traditional cuisine has due of technological advances.

In spite of this, they are able to identify a number of aspects of traditional cuisine, including the fact that it is hardy, that it has spicier dishes and sweeter desserts, and that it makes use of regional products like banana leaves and coconut. they know that the food consists of a main dish, a side dish, and sweet delicacies, only some can explain the production process and the rationale behind the techniques used. When comparing the past and present, some of them have not noticed any difference in preparing traditional food.

### **5.3.2 Practical Contribution and Implications**

The results of an investigation of the influence that modern technology has had on the preparation of traditional Malay cuisine and the cooking methods used in Malaysia among chefs have been acquired.

To summarize, other components of life, such as one's manner of life, level of education, level of money, level of technical progress, and level of modernization, all have various affects on how a person molds the way they respond to the influence of contemporary technology on traditional Malay meals. The community's cultural history and the traditional cuisines that they acquired from their ancestors are slowly being lost as a result of this factor, at least to some degree.

On the other hand, due to the fact that it is completely dependent on the person, it is not that clear. They genuinely have the choice between protecting it and taking it for granted as something that will always be there. If from the beginning a solid foundation of awareness is laid, it will be possible, despite the possibility that difficulties or obstructions may be encountered, to triumph over them in the long run.

In this dynamic world, modernization unavoidably has an effect on every facet of our life; more specifically, for the sake of this investigation, it has an effect on the procedures of preparing and cooking the traditional foods of the Malay culture. In times past, it would have

been impossible to conceive of technologies such as convenience foods and contemporary cooking equipment. However, thanks to technological advancements, we can now enjoy the benefits of these innovations. As a result, the findings of this research contributed to the expansion of knowledge on Malay traditional cuisine by providing a clearer understanding of the ways in which contemporary technology has an impact on the traditional methods of food preparation and cooking in Malaysia.

The results of this research revealed that people still prefer to prepare and eat traditional Malay cuisine even if they have adjusted the preparation and cooking methods to fit their lifestyles. This choice to cook and eat traditional Malay food was suggested by the findings of this study. Not only that, but they also have a favorable outlook towards the influence that modernization has had on their ways of life. They go to the trouble of preparing and cooking Malay traditional cuisine on their own, hoping to achieve a flavor profile that is comparable to that of food that has been traditionally prepared and cooked.

The findings of this research might, from a more pragmatic standpoint, contribute to broadening the perspectives of stakeholders, in particular those working in the hospitality business, on the use of contemporary technology to the preservation of traditional Malay cuisine. In addition, the findings of this study might also contribute theoretically and conceptually in which quantitative researchers could include contemporary technology as one of the factors that could assist the sustainability of traditional Malay food in their studies. This could be a factor that could assist the sustainability of traditional Malay food.

Despite this, the scope of this study is restricted to the Malay community since the researcher chose Malay women as one of the criteria for the informant pool. This research is also restricted to the opinions of Malay women about the influence of contemporary technology on the traditional methods of food preparation and cooking in Malay households. As a result, further study may investigate the points of view of Malaysia's many other ethnic groups, such as the Chinese and the Indians, in addition to doing exhaustive research on the traditional cuisine of the Malay people.

## **5.4 Conclusions**

The conclusions based on the main topic that researcher study is the impact of modern technology towards Malay traditional foods preparation and cooking processes among chefs in Malaysia. The traditional foods is basically from generation to generation and people can notice it when a lot of information can contributed to make young generations didn't forget

their origin. Thus, the research is basically to keep the impact is still benefit to chef because Malay traditional foods preparation and cooking method actually give a lot of impact to Malay traditional foods and make it different right now because of current condition that make it change. Moreover, Traditional food is usually very close to a person's heart because it is the first thing they inherited from their family. It inevitably has much sentimental value from the experiences and memories that come with it. The impact of modern technology towards Malay traditional foods preparation and cooking processes among chefs in Malaysia also based on summary of analysis about research question RQ because it focuses information or data that contributed to the change such as it change based on ingredients, texture, appearance, equipment, originality and heritage of Malay traditional foods. In the context of this study, chefs is play very important role to keep the authenticity of Malay traditional foods keep preserved because the impact can make people must feel and practice to do the Malay traditional foods and not only chef must play their role but public people also must know the knowledge on how to preparation and cooking method of Malay traditional foods that different to traditional foods but using the modern technology to cooking and eating it.

On the other hand, the researcher expects this study to be a meaningful reference for future studies focusing more on detail related to this topic. There is an abundance of division in the Malay cooking area that has not yet been covered. This study can be useful to the next researcher because it can be best reference to them to develop the new data and information and take our study as reference and use it and do more research for sake of public information. More additional information can be put and add on extra knowledge because not only Malay traditional foods preparation and cooking method but also on other ethnicities in Malaysia. The development of modern technology is difficult to stop because it based on trend and current demand of customer itself. Research is something fun to do because it can get new knowledge and know more people because the informer such as chefs, public people and so on can make variety of data and use it as idea to people can benefit it. The summary analysis and other part in chapter 5 is focuses on researcher question and interview question on how to complete the limitations and recommendations, contributions, and implications about overall in chapter 5 to complete this research.

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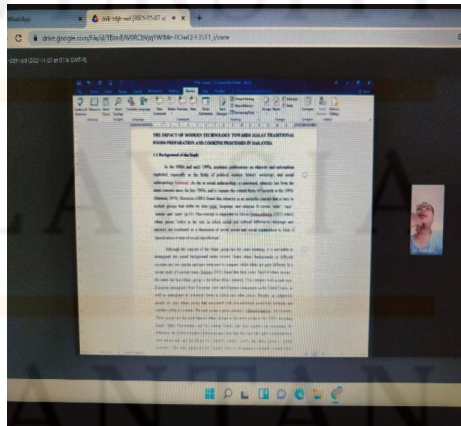
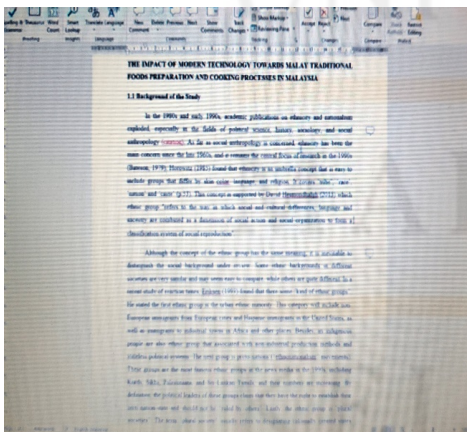
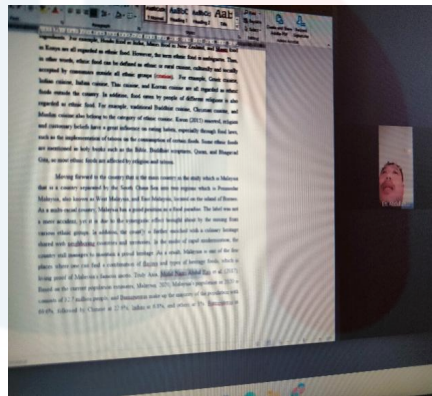
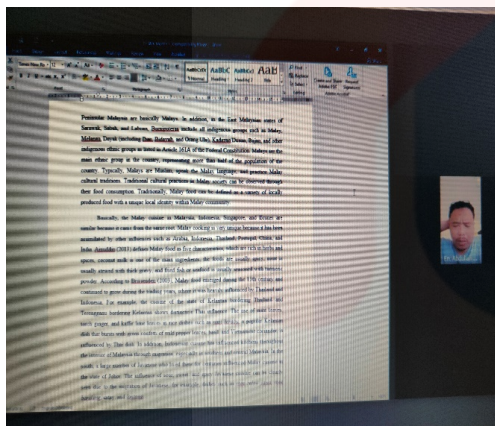
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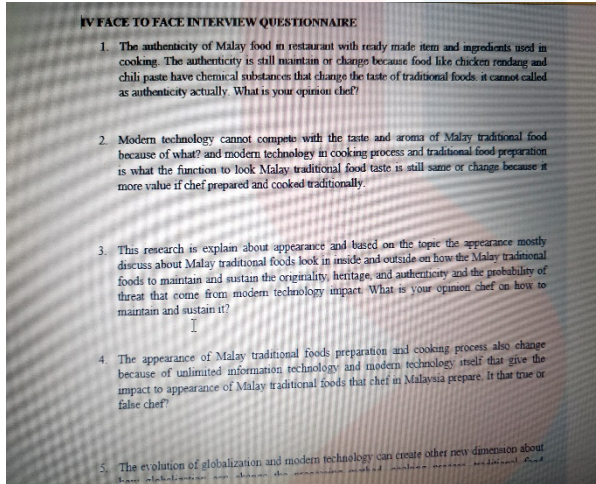
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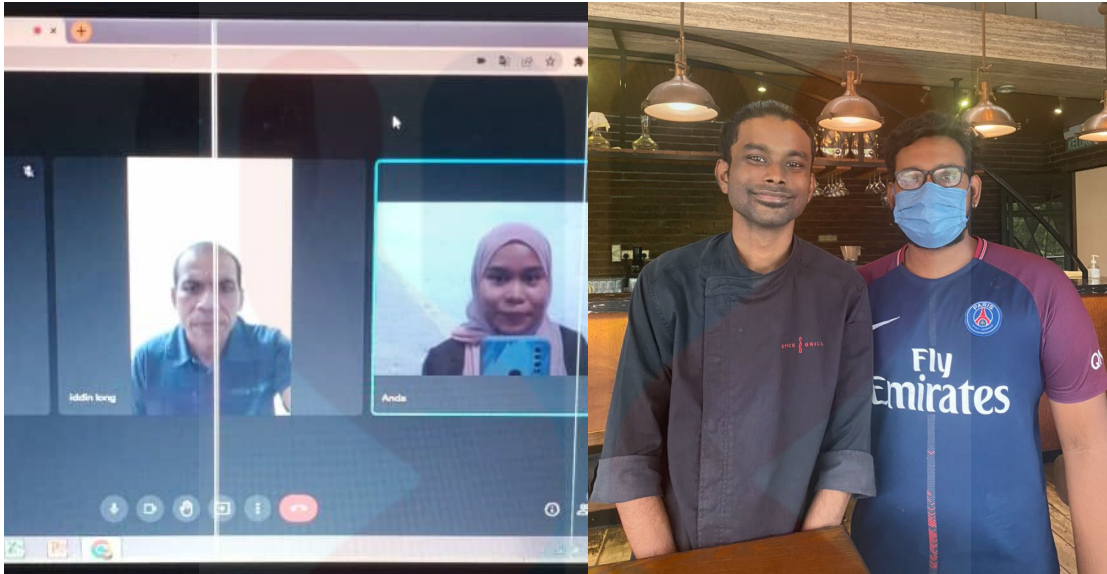
APPENDIX A – (Discussion about Chapter 1, 2, 3 of PPTA)



## APPENDIX B – Sample of the Questionnaire Face To Face Interview and Picture about Malay Traditional Food in the hotel.



**APPENDIX C - Online and Face-to-Face Interview Sessions with Chefs**



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