# DESIGNING DINING

Rethinking Productivity
for the Food & Beverage Sector
in Singapore

# TABLE OF CONTENTS

# FOREWORD

Singaporeans love our food. Other than being integral to our lifestyle and national identity, the food business is also an important contributor to Singapore's economy. The Food and Beverage (F&B) sector in Singapore is diverse and vibrant, and valued at S$6.1 billion in 2015 (Euromonitor). But the sector is also a crowded and challenging one, where players face issues like manpower crunch, rising rental rates and increasing consumer expectations.

Design innovation helps the F&B sector raise productivity and profitability. By understanding users' needs and F&B trends, restaurants, eateries and food chains can redesign experiences that will not only delight customers but also help staff be more efficient and effective.

DesignSingapore Council commissioned this research to uncover user insights and F&B trends, and suggests design solutions and best practices. You will read about how an interactive menu can create fun customer experiences and quicken the ordering process, as well as how well-designed wayfinding can reduce congestion at crowded food courts. You can also learn how to apply the design thinking process – and a selection of insights, personas and concepts – to the F&B sector.

I hope this publication can inform and inspire F&B enterprises on the opportunities to take their businesses to the next level.

**Agnes Kwek**
Executive Director
DesignSingapore Council

# HOW MIGHT WE DESIGN FOR PRODUCTIVITY IN THE FOOD AND BEVERAGE SECTOR?

To answer that question, DesignSingapore Council commissioned three design consultancies to run studios for different types of F&B outlets.

1.   Quick Service Restaurants
2.   Casual Dining Restaurants
3.   Food Courts and Kopitiams

The consultancies ran scoping exercises, design ethnography studies and innovation workshops over more than six months, working closely with Singapore small and medium enterprises (SMEs).

This publication showcases a collection of the research findings and design concepts derived from and inspired by the studios. A set of global trends are also presented.

With this publication, we seek to inspire F&B businesses with the possibilities that design innovation presents to solving productivity issues. The presentation will also illustrate the human-centred design process, which we believe is a powerful tool in problem solving. Designers and other stakeholders who want to be informed of the consumer needs in this industry will also find this resource useful.

Management & Leadership

Operations & Processes

Suppliers

Service Touchpoints

Space Layout & Environment

Social Media

Employee Engagement

Staff Roles & Scope

Dining Experience

Marketing & Branding

Consumer Behaviour
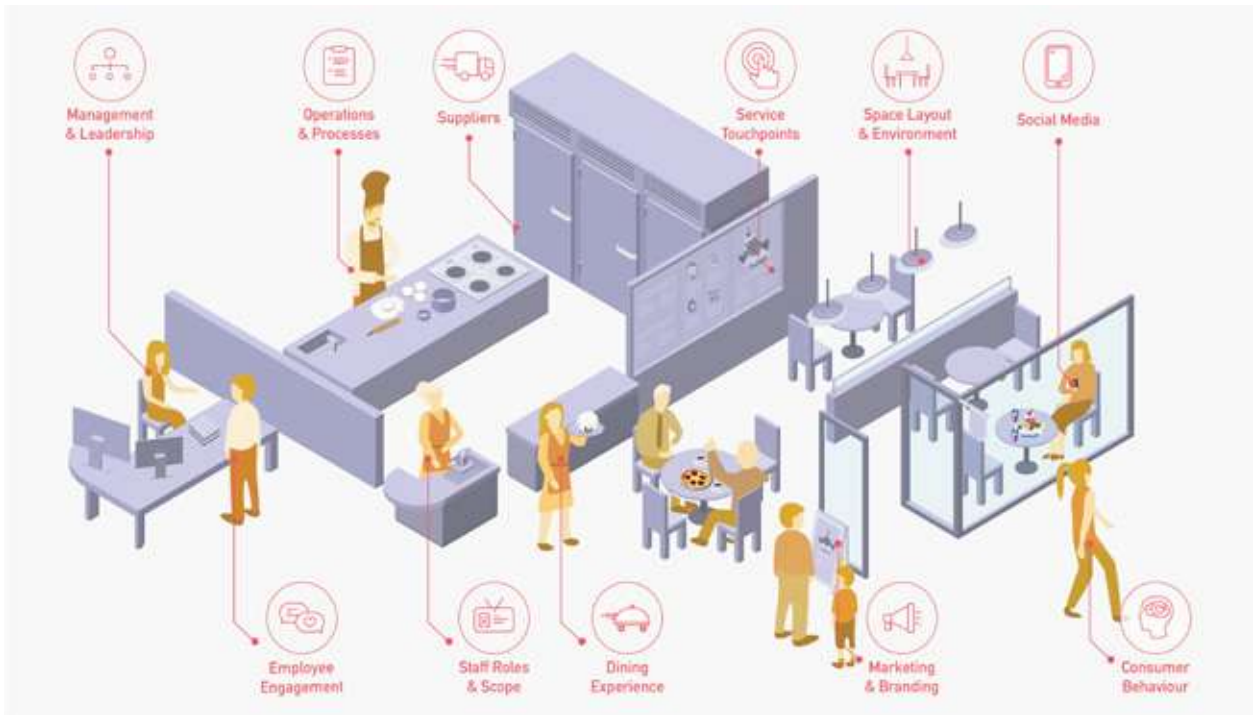
## RETHINKING PRODUCTIVITY

Productivity is a measure of the effectiveness and efficiency of a business in generating output with the resources available. It is defined as a ratio of output over input. Businesses often measure labour and production costs, against profits.

By forming links between discovered user insights and business needs, the consultancies could develop holistic perspectives to frame developed productivity issues. By looking at the issues through the lenses of users, the consultancies also gained insights into the deeper factors that affect profit and costs.

At the front-of-house, design can play a role in creating delightful customer experiences, which lead to greater value-add and spending. At the back-of-house, a better understanding of service providers' needs and sentiments can inform the redesign of processes that are more intuitive. This increases effectiveness and efficiency.

The broad areas that this publication will touch on is summarised in the graphic above. They exist in the ecosystem interdependently, and offer good opportunities for design that raise productivity.

# OUR METHODOLOGY

Design thinking is an iterative and collaborative human-centred approach to design and innovation. It is a designer's way of solving problems with empathy. It involves understanding end-users to gather unarticulated insights, creating solutions to meet the users' needs, prototyping, testing and implementation.

In this publication, we present user's needs through prototyping and testing, before implementing in full scale.

**(1) UNDERSTAND**
LEARN ABOUT THE USER YOU ARE DESIGNING FOR

Global Trend Study
The team picked up signals from around the world, making sense of the behaviours, motivations, sentiments and conversations surrounding the F&B industry. This data is synthesised into 14 global trends. They take into account global and macro factors that will shape F&B in the coming years, if not already.

Design Ethnography
To better understand the needs of both consumers and service providers, the researchers conducted a series of in-depth interviews, contextual enquiries and on-site observations in their respective studios.

Design ethnography informs design by revealing a deep understanding of people and how they make sense of their world and derive value in the objects and experiences around them.

These user insights can serve to inform and inspire designers and business owners. They serve as a first step to designing products, services and experiences that better meet the needs of the users they are designing for.

The findings are presented as Opportunities, Insights and User Personas. Personas are fictional characters that aggregate common needs, and often also serve to anchor the design process firmly on discovered needs, rather than imagined ones.
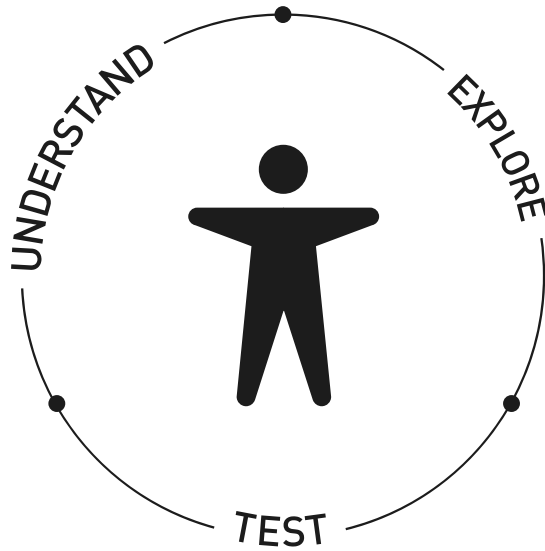
**(2) EXPLORE**
EXPLORE IDEAS TO ADDRESS USERS' NEEDS

Design Innovation Workshops
Ideation is about exploring possible solutions. Divergent thinking allows one to think beyond the obvious. Convergent thinking zooms in on specific business needs.

The consultancies conducted workshops with SMEs, working with them to make sense of the research findings. SMEs also worked towards potential design solutions.

The consultancies worked with the ideas generated through the workshops to develop 6 Design Concepts in each studio, for this publication. They serve as sources of inspiration for F&B businesses. They also illustrate the design thinking process – from research to solutions.

**(3) TEST**
PROTOTYPING TO IMPROVE IDEAS

Prototyping ideas in the real-world context allows designers to identify areas for improvement quickly before injecting more investment. We urge designers and businesses who are inspired by the material in this publication to prototype the design concepts for quick-testing.

# TRENDS IN THE FOOD & BEVERAGES INDUSTRY

**AUTHORED BY FAST FORWARD**

The following trend report portrays the results of our research concerning current and emergent trends affecting the F&B industry in the near future. Each trend serves as an aid for anticipation and strategic planning in a volatile, prone to change, business environment. It can help to improve understanding of behavioural patterns and mindset shifts on the consumer side, gleaning from the global data collected, analysed and synthesised. The future customers of Asia are Millennials, who tend to be more open to Western and global influences. This trend report will be particularly useful for understanding them.

# ABOUT THE TRENDS

In order to anticipate change in a rapidly transforming world, the F&B industry needs to understand the impact of new technologies and changing consumer behaviours. In such a competitive landscape, F&B businesses must maintain a competitive edge and adapt if they want to survive and grow.

We examine the global food landscape to understand what are the sentiments and behaviours that are affecting how and what consumers eat. This study comprehensively uncovers trends happening around the world in order to inspire better products and services that can be used within the industry.

To develop this trend report, we used a customised system to process large amounts of information, while simultaneously running global trend research studies. Our process allows collecting information manually from multiple sources and aggregating it in a shared storage system. After the information has been collected, a set of big data analysis algorithms and machine learning tools allow us to process big chunks of data to identify, cluster, classify and correlate meaning, behaviour, motivations, sentiments and even images, creating a first draft of relevant trends that helped the team to refine areas of interest with expanded data collection in those areas.

Once the information is classified through the automated tools, the team works manually to add clarity, identify insights and trends, creating not only traceable maps signalling trends but also geographic maps that show how trends move around the globe.

This is a process of sense-making that helps to create proper storytelling within each trend.

We worked with the synthesised data to develop these trends by finding conversations that were relevant to the F&B industry. These 14 trends can be adapted in multiple ways by the businesses to create better services and products appealing to modern consumers. After finding the trends most relevant to the F&B industry, we verified these with Trend Signals and case studies happening globally, as well as manifested locally.

# LOATHED INDUSTRY

**Eating is a need that everyone has to satisfy daily. It generates the biggest industry in the world, and it makes up the most socially engaging act of our waking hours. People want to know and understand what they eat, but the more they know about food, the less appetising it becomes.**

People are increasingly worried about the practices around the food they eat. They are overloaded by food security warnings and misinformation from the ever-growing use of Internet media and institutions[1]. It is common to hear modern myths around food quality or hygiene from the media, as such news become viral every week somewhere in the world. Finding rodent bones in hamburgers, human meat in Chinese food, or disgusting fluids in home-delivered pizza are some of the most famous and global urban legends affecting the restaurant industry worldwide.

There is no way to disregard the lifesaving benefits of modern mass-production food systems compared to previous production, distribution, and conservation methods. However, some widely used ingredients are recently getting too much attention about correlated health issues. Flavour enhancers, preservatives, colourants, sweeteners, emulsifiers, stabilisers, antioxidants and other labelled ingredients get into people's minds as modern horrors within the food industry[24]. Once used to preserve and enhance food for mass-consumption, most of them appear inherently poisonous in thousands of websites, user groups, social networks, and forums all over the Internet. On top of this, the food production system generates fear itself, with its intentional lack of transparency.

## TREND SIGNALS





Interestingly, the first brands adopting the emerging opportunity around this trend are in the food distribution channels like supermarkets. Big players around the globe are starting to adopt a less careless relationship with food, and start using that as part of their marketing or business strategies to gain a bigger market share. Carrefour BIO's organic range is an example of this trend's adoption. Its offerings grows every year and includes products that are farmed using production methods that protect the environment. At the same time their actions express other values like partnerships with local suppliers, where over 70% of Carrefour organic food products sold in French stores are produced in France, localising their food. To date, Carrefour is working with over 200 agricultural and industrial partners to create a close relationship with the local culture and embrace a better approach towards the food industry. Since its inception, the Carrefour BIO concept has been exported to many of the countries where the brand operates, like Spain and Brazil. But Carrefour is not the only example. Another approach is the shift Whole Foods Market is making in North America towards a more experiential way of thinking around food. They appreciate and celebrate that great food and cooking improves the lives of all of their stakeholders. Breaking bread with others, eating healthfully and eating well — these are some of the great joys of living. Their goal is to sell the highest quality products at competitive prices to their customers. Whole Foods Market's product quality standards focus on ingredients, freshness, taste, nutritional value, safety and/or appearance.

## EMERGING OPPORTUNITY

More people are questioning practices and processes around the food industry, identifying health risks and lack of transparency. Introducing alternative or substitute products creates an opportunity for F&B businesses to attract new customers, maximise turnover and increase appreciation and trust from concerned consumers.

## REGIONAL IMPACT

Developed economies in North America and Europe are leading towards redesigning the relationship between the food industry and consumers. Major cities across Asia and Latin America started the adoption in the form of small eateries rather than supermarkets.

# OUTSOURCE FEEDING

**The shift in modern society towards a culture that prefers to eat out correlates to the rural depopulation of the last century. Less time and limited skills for cooking at home forces people to outsource the job of nourishing themselves to restaurants and eateries, giving raise to a grazing behaviour that makes eating less social and shared.**

Cooking has always been constrained by time, and nowadays, 74% of the meals are eaten out[26]. As a society, we have outsourced the job of feeding ourselves, our children, and our families. Long working hours and a professional lifestyle lead to a decrease in hot meal intake and an increase in snack foods[8]. Eating is no longer an act of social gathering and relaxation as much as it is an individual behaviour to satisfy hunger. Eating out was democratised by technology, affluence, and over-employment[4]. People have less time to cook at home[4], and the concept of family has changed. Sharing family meals tends to disappear[8], except during special festivities and occasions.

The increase in work hours generates an increasingly grazing behaviour[8]. People are eating more frequently but have minimal control over what they eat. The OECD* reports that less time to prepare your food at home leads to an increase in weight[16]. It is a signal of how far we have let loose the control of our own nourishment to restaurants, eateries, and vending machines. But there is another reason for people to eat out, and that is status. Affluence leads to displays of status, and eating out is one of the best ways to do so[1]. Eating out amplifies choice, as menus are exciting and diverse. When possible, eating out is special[4] and is used to impress on special occasions.

* The Organisation for Economic Co-operation and Development

# TREND SIGNALS



Food that delights
The perfect meal for everyone. Delivered right to your door.
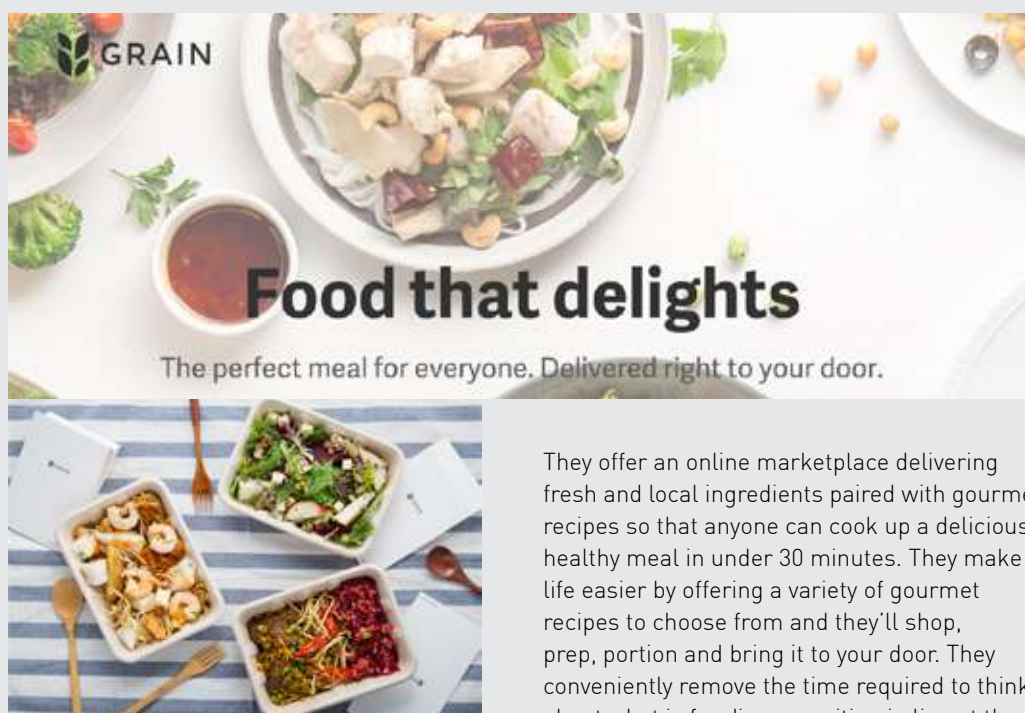


Malaysian-based startup Yumcious is a community for foodies. As they describe it on their Facebook page, "show what you've cooked, sell it, or get good food delivered to you". It is a platform for homemade meals which gathers home chefs, foodies, and food couriers altogether. Foodies who have registered on the platform get to have homemade meals delivered to them. It is a way to allow people that have to eat outside to have a better regarded meal than in restaurants, much closer to eating at home than eating outside.

Another interesting idea that allows people to overcome their lack of time to cook healthy meals is Fresh Prep, in Vancouver.

They offer an online marketplace delivering fresh and local ingredients paired with gourmet recipes so that anyone can cook up a delicious, healthy meal in under 30 minutes. They make life easier by offering a variety of gourmet recipes to choose from and they'll shop, prep, portion and bring it to your door. They conveniently remove the time required to think about what is for dinner, waiting in line at the grocery store and making a complete mess of your kitchen and all your crockery in the cupboards as you do the prep work. Best of all, you get to try some extraordinary ingredients in the exact portion required, without the spoilage, and without investing anymore time than what is needed to finish the recipe at home. The lack of demand, coupled with the relatively smaller number of health-conscious eateries, heighten the difficulty of healthy living when most meals are taken outside home. Singapore's startup Grain is turning this into an opportunity. It delivers food focusing on being wholesome, ensuring top quality in taste and experience. They work with top chefs to create ready-to-eat dishes that are prepared in-house and delivered to you on-demand.

## EMERGING OPPORTUNITY

Modern lifestyles create a sense of urgency and lack of time, displacing food consumption out of home and family environments. Cooking skills are becoming less common as people prefer to spend more of their scarce time on leisure activities than engaging in traditional and cultural social rituals. Fostering social gathering around food creates an opportunity to thrive for F&B businesses.

## REGIONAL IMPACT

There is a clear lead in developed regions where working hours dominate the daily lives of people. North America and Europe offer a wide range of alternatives, but major cities in Asia are catching up.

# MINDFUL EATING

**As awareness around food increases, people start to think about what they eat. One is more a mindful and thoughtful mindset. It inherently becomes an individual's right to decide about food, choose a principle-based diet, and let the industry and services evolve forward while taking control of what they eat.**

Social pressure to eat healthier and worrying about food industry processes are making people consciously think about what they eat[27]. Food allergies have been steadily increasing by up to 18% since 1997, and some associate this increase to new additives and practices within the industry[22]. Because of this, it is now necessary to be aware of the food you to put in your mouth, but still, 66% of households that have members with allergies suffer from choosing food at restaurants or supermarkets they are not familiar with[22]. An indicator of the industry reacting to this behaviour is the gluten-free label trend observed globally[3,23], influencing 86% of consumers with extra tags, labels, and information as a selling point. Understandably, health claims directly increase sales[1].

A definite relationship between income and obesity[5] explains why people eat 12.7% healthier at home than when eating out[26]. Personal involvement and determination towards defining a better diet helps people focus on what to eat[27]. Breaking the daily fast is known to be the most important act around nutrition. Breakfast is the healthiest meal, and it helps people eat 12.3% healthier throughout the day. Skipping it will not only make you crave for unhealthy food but also eat 6.8% more food during the day[26].

# TREND SIGNALS







Thoughtful meal options around the world emerge mainly in the form of small eateries where a mix of loath towards the industry and mindfulness helps create better alternatives for daily eating. A good example is Nama, a raw food restaurant based in Notting Hill, London. Tucked away in a nice shady spot, on Talbot Road, they like to think of themselves as something of a raw food nirvana, offering – beyond dining – raw food courses and detox diets, catering, juice cleanses, and all manner of information on the raw food lifestyle. Basically everything they serve is revolving around the concept of uncooked food and serving it basically as it is present in nature, removing any unrelated processes. But, whether people eat a 100% raw food diet, a high proportion of raw food, or just a little bit here and there, they promote raw food's amazing health benefits. No preservatives, no colourants, no artificial processes, no manipulation and a beautiful food plating help create a healthier perspective of food. They are open for breakfast, lunch and dinner, so they offer

alternatives for each and every meal. But another interesting way of approaching this trend appears in the form of food educational services, as offered by The Food Coach Institute in Australia. Dr. Shirley was born in Ireland and trained as a doctor in the UK. After becoming a family doctor she travelled all over the world, studying how illness could be solved by healthy nutrition. Now settled in Australia, Prof. Shirley has developed her practice to include nutrition as a healing therapy. She is passionate about preventing illness and helping people learn how to eat the right way in today's unhealthy world. Her aim is to train as many Food Coaches as possible to fight 21st century diseases like diabetes or obesity.

## EMERGING OPPORTUNITY

Each day, more and more consumers are aware of their food habits, spending more time choosing products and ingredients that accommodate their diets, demanding more information about their origins, sourcing and processing. F&B businesses could increase the turnover by providing more informative and tailored choices that are honest.

## REGIONAL IMPACT

Regions with poor connections with food production farms or traditional countrysides are leading this trend through restaurants, grocery stores and lifestyle services. Major cities show a higher penetration, while Asia and Latin America focus on the functional.

# FRESHNESS

**People are using their forks as votes to choose between the food industry and sustainable local food. Freshness, flavour, and taste are the metrics driving these decisions. Emerging local food movements promote higher degrees of food transparency and honesty, allowing people to know their food and its origins.**

Looking at products in supermarket aisles is not helping people to determine if a particular food is fresh and safe to eat. The homogenisation of pre-packaged foods blurs the distinction between fresh and fast food[18]. Food lets people express a certain attitude towards life. What you consume and the way in which you do it projects an image of your inner self-principles. Freshness is a concept that is dependent on time. It also includes concepts such as growing, harvesting, packaging, and distribution. No food that travelled thousands of miles could be fresher than food sourced nearby. So, inherently, freshness is directly associated with tastefulness[19]. People use social media to research the freshness, nutritional value and health issues that might be related to the food they eat[25].

An emerging local food movement has appeared in major cities to promote local whole foods as safer, tastier, sustainable, and more humane[15]. It is enthusiastic, independent[13], and supported by chefs, TV shows, and social media[21]. Today, farmer's markets and community-supported agriculture are the fastest growing segments of the industry[15], and this is helping to decrease the distance between the production and consumption of food[19]. In the end, it is proximity that determines cuisine preferences[2]. In the era of smartphones and globalised culture, 94% of consumers use their devices to look for local info, and 84% take action as a result[25].

# TREND SIGNALS





One of the best places to illustrate adoption of this trend is Silo, in Brighton, UK. Silo was conceived from a desire to innovate in the food industry whilst demonstrating respect for the environment, from how our food is generated to the nourishment given to our bodies. They create everything from its raw, unprocessed state, cutting out food travel distance and over-processing, preserving nutrients and the integrity of ingredients in the process. Silo also has a brewery that creates fermented drinks using foraged and intercepted plants, herbs, vegetables and fruit. They even have their own flour mill to turn ancient varieties of wheat into flour using original techniques, opposing over-processed industrialised bread making techniques. Silo also churns its own butter, makes its own almond milk, rolls its own oats and supports a nose to tail ideology, meaning that if an animal dies for food, they maximise the food outcome, trying to avoid senseless animal slaughter and resource wastage. Another interesting concept to think in terms of freshness is the distance
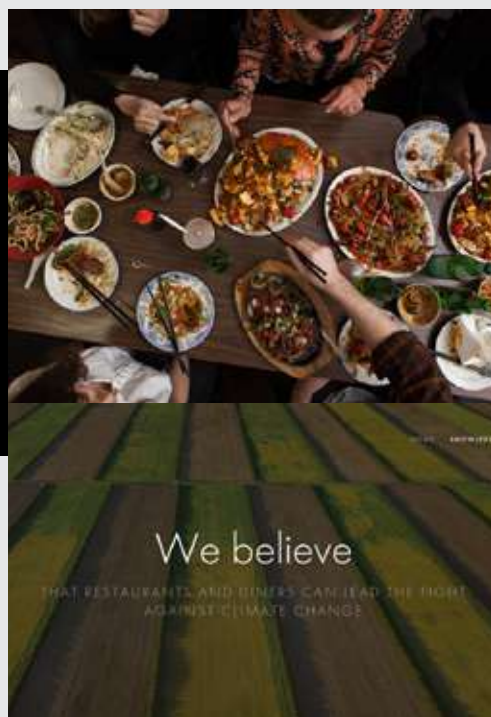
food travels before arriving to a consumer's table. Founded in 2014, ZeroFoodprint is a nonprofit project led by Chris Ying (Lucky Peach), Anthony Myint (The Perennial), and climate-change expert Peter Freed that works in the area of carbon footprint for your food. Trying to be an environmentally-conscious food business can be a complicated and intimidating endeavour. ZeroFoodprint tries to simplify things for restaurants by focusing on one issue: climate change. The global food system accounts for roughly one-third of the world's greenhouse gases. The project helps restaurants understand their own impact, and works with them to reduce and offset their carbon emissions.

## EMERGING OPPORTUNITY

Responsible sourcing and health-consciousness determine consumer choices for those who are aware of what they eat, and concerns gravitate around proximity and freshness. F&B businesses can benefit by shortening the distance between food sourcing, production and the table, creating new tasty and differentiated experiences to increase turnover.

## REGIONAL IMPACT

Asia and Latin America are key regions where this trend is strongly represented, due to less developed food distribution chains that result in sourcing food closer to consumers. Western regions are going back to a fresher food distribution and consumption model all over major cities.

# FOODIE CULTURE

Cooking recipe secrets are no longer secret. Internet media, blogs, and culturised masses have standardised cooking tools, techniques, recipes, and ingredients. Everyone can be a chef now and cook for their friends, family, or even join a cooking class to improve their skills or to learn the basics of new cuisines.

Cheap travel, television, and the Internet have democratised food[4] and created the concept of the modern foodie: a person with a particular interest in food, or a gourmet. Food is used to demonstrate status[4], and meals help express identity and social distinction[8]. Food is the symbol and reality of love and security[4], exhibited with meals as gifts to the family[8]. Modern family is no longer just a blood relationship but all those who eat together. It represents a set of connections as vast as the digital social networks that it mimics.

The Internet has had a profound effect on the way we think about food. The rise of online media and blogs led to an increase in shared information, creating a global culture[2] that standardises cooking techniques and secrets. It is an open-source book of culinary information in anyone's hands[13]. Our global food culture[2] created food-obsessed masses in culinary craft that are empowered by cooking technologies at home[13]. New cooking enthusiasts demand foreign products' to be available in their local stores[13] as items of prestige[4], creating a new breed of online and offline specialty shops[22]. Foodies create a new paradigm of restaurant-quality food in non-restaurant settings[10], that is shaped by media[1], technology, the service of cooking for others and the joy of eating together. This new behaviour instils an effect that takes the attention away from the food and yet leads to eating healthier[11].

## TREND SIGNALS
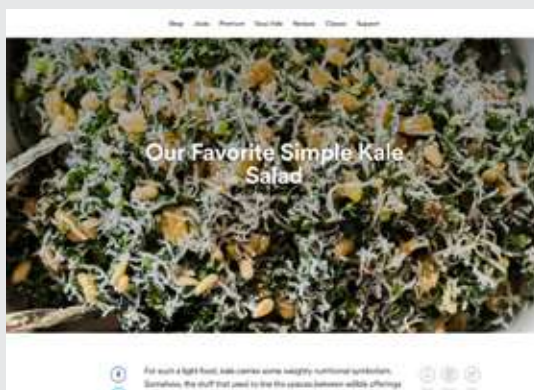






In terms of adopting this trend, ChefSteps believes cooking makes people better. Founded in 2012, they're a Seattle-based food and technology company on a mission to help people cook smarter. Their website and app are designed to inspire creativity and encourage experimentation through high-quality interactive content, techniques, tools, and resources. The ChefSteps team is made up of 50+ voices —chefs, scientists, photographers, writers, and engineers— and they all have one thing in mind: helping people to cook confidently. They called it "cooking smarter." Why? Because the more people know about cooking, the better they get at it. And the better people get at it, the more fun it is. They think cooking and eating together makes us better humans, and they share that belief with the world. But teaching people how to cook is not the only approach. Sunday Suppers is a food and design community based in Williamsburg, Brooklyn, that embrace shared meals and cooking communally to celebrate the traditions of food and gathering. The food

is seasonal, market fresh, and they work with local artisans and crafters to create monthly dinners. It started five years ago at their founders' home. A few friends gathered together, cooked and dined and made a toast. From there, dinners have evolved and have grown into a beautiful new space. Their community has expanded beyond expectations and the concept is centred on simplicity, a love for food and social relationships lost in modern times towards copycat food experiences everywhere. In Asia, ABC Cooking Studio provides cooking and baking lessons that allow people to experience the joys of cooking in a comfortable and relaxed environment, starting at Shizuoka, Japan, in 1985.

## EMERGING OPPORTUNITY

Technology has democratised almost everything, including food. People have wide access to information that teaches them how to become good at cooking. This context generates a new set of opportunities for F&B businesses to make people part of the cooking process and increasing productivity while they enjoy food.

## REGIONAL IMPACT

Spreading faster across developed economies in major cities all over Europe and North America, other world-class cities like Singapore, Sao Paulo, Tokyo and Seoul have started to move their regions ahead by providing more interesting options to consumers.

# FAST CASUAL

**People are looking for fast and efficient ways to shop for food. Convenience and speed are the necessities in a modern lifestyle, constrained by long working hours and a lack of time to choose, acquire and prepare food. It has to be simple, and simplicity should be convenient, fast and tasty.**

In a society constrained by time, convenience transforms where and when people shop for food[18]. People are so busy in their work and personal lives that there is no time available for them to plan and prepare food themselves. Today, people's approach to food is to apply a time-saving plan. Convenience, today, is the sum of time, space, and social facilitation. Time is the biggest constraint for people. Food needs to be fast and adapted to a meal schedule that is shared by our new society. Space determines the desirability and creates the atmosphere required for the last element, social facilitation. A mix of formality and informality define what is acceptable within the context of eating in a time-constrained social schedule. However, convenience and speed are the most important expected benefits[29] in the new paradigm for food, converting convenience to a baseline expectation.

Perceptions of convenience all around the globe have changed over the last few years. Unstructured meals are shifting the classic three-meals-a-day pattern[8]. New meals like brunch (breakfast + lunch), or brinner (breakfast + dinner)[32], make the need for food to be available to people 24 hours of the day. Although culinary rules are based on local culture[8], new rules are appearing after the rise of a global culture, different subcultures, and a mix of ethnic groups in cities[1]. Indeed, it is availability instead of preferences that determine people's food choices, given the constraints of time, space, and social facilitation.

## TREND SIGNALS





As a young chef, Alain Coumont was dissatisfied with the quality of bread available in Brussels, so he began making his own, mixing flour, water and salt into the familiar loaves of his childhood. He furnished the store with cabinets scoured from antique stores and a large table from the local flea market: the first of Le Pain Quotidien's many communal tables. The experience at their locations allow for people to enjoy a nice environment, with a casual attitude and a great focus on food quality. Everything gravitates around different experiences with bread, but it is shared with the other people eating at your same table, which creates a communal proximity to the social aspects of eating.

Gradually, items were added to the menu to complement the bread, including pastries, salads, beverages, tartines and specialty retail products, converting Le Pain Quotidien into one of the key references for eco and sustainable food for anyone who's willing to enjoy a casual experience with an ecological approach and mindset. On the other side

of the planet, Denny's is known for always being open; serving breakfast, lunch, dinner, and dessert around the clock, at any time, for anyone. It is an American fast food restaurant chain where food quality can be questioned by some, but the fast casual environment and their approach makes it easier for their customers to enjoy the food. Unlike many other restaurant chains, Denny's does not close on holidays or nights, except when required by law. Many of their restaurants are located in proximity to freeway exits, bars, and in service areas, so they are attractive to overnight drivers or professional truck drivers that spend a lot of time on the roads, adapting to customer needs in terms of time and convenience.

## EMERGING OPPORTUNITY

Time is more important in terms of convenience than any other factor affecting how people choose food options. F&B businesses can take advantage by changing formats to make them faster but with increased quality and without any other constraints.

## REGIONAL IMPACT

Asia is the leading region on cultural food convenience and availability. Markets and food stalls appear on every street, with some opening exclusively overnight, to satisfy customer needs around the clock. North America follows closely with a more developed fast and casual food culture.

# HEALTHIFICATION

**As people become more aware of food's health implications, better meals are expected almost everywhere: restaurants, coffee shops, supermarkets, and even vending machines. It is not about where and when to eat the healthiest food but the social pressure to go "from fat to fit".**

People all around the world are getting more concerned about what they eat[5]. Food behaviour is related with overall health and longevity, so unhealthy food behaviour is deemed to cause future illness and, consequently, incur health costs. Public health systems still believe in social behavioural change[1], but information about food risks does not tend to have any effect on people. To eat is a physiological need, and even if gluttony is a biological behaviour, hunger must be satisfied on a daily basis[4]. Of all the available food options, fast food is the one dominating online conversations[5]. A hedonistic response to sweet or sugary foods[1] seems clear when 58% of food shared on Twitter is full of sugar[5].

As different societies become more affluent, the available time to eat or cook at home decreases and to demonstrate social status, fat intake increases due to greater access to meat and animal byproducts. Long working hours might generate wealth, but people are also less likely to cook at home and eat with family, friends, or colleagues. This solo behavior delays physiological satiety signaling, and food portions increase in size to satisfy uncontrolled satiety. With increased individuality, social interaction moved from the table to devices and removed focus when eating, resulting in increased food intake[11] and a higher obesity index[5].

## TREND SIGNALS

A healthier way of eating appears in Singapore under the "The Daily Cut" brand. With three stores in the city, it is one of many restaurants emerging in major cities around the world that configure simpler diets based on freshly prepared wholesome ingredients. No processed food is used in their open kitchens at any of their outlets. Balanced and healthy options are proposed, with the natural balance of Mediterranean diet ingredients, "Spoiling you for choice as you call the shots on your own nutritional journey", as they claim. The Daily Cut is the meat lover's answer to the ubiquitous salad bowl in the CBD. The owner, Jonathan Yang – also co-owner of Muchachos in the Keong Saik neighbourhood, which caters to an #eatclean crowd with protein 'macro bowls' priced from $9, packed with healthily grilled options like chicken thighs, sirloin steaks, salmon fillet and veggie-friendly tofu that pair alongside other accompaniments like sous vide egg, fresh mozzarella, avocado and edamame beans." In 2013, HIC was established "with the aim of making

premium raw, organic, cold pressed juices available and accessible to everyone in Singapore", delivering health and balance to their devoted customers. HIC is much more than a juice bar. They promote themselves claiming that "With our technology, we are able to extract close to 5 times the amount of nutrients, unleashing the phytonutrients, vitamins, trace minerals, enzymes, and other vital elements from our fresh produce, giving the finest quality and flavour which is unequalled by any other method of juice extraction" Their menu offers a wide range of cold pressed juices, cleansing plans, superfood smoothies and nut milks; their personal concierges and nutritionists are energetic, approachable and knowledgeable.

### EMERGING OPPORTUNITY

Concerns about health are guaranteed to have an effect on what people eat. Key opportunities for F&B businesses arise from offering healthier choices, but ones that still comply with individualistic eating habits, creating a better chance of diversifying customers and increasing turnover with a simpler food preparation process.

### REGIONAL IMPACT

Spreading fast amongst millennials and thirty-somethings in super big cities all across Western countries like London, New York, Paris, San Francisco, Barcelona, Berlin; it is a city trend rather than a regional trend, that could be adopted easily almost anywhere.

# DEMEATIFICATION

**People are increasingly concerned about meat consumption. Meat is widely used in Western diets and, together with sweets, causes numerous diseases and issues that people want to avoid. Unrelated to vegetarianism, people try to diminish the daily intake of meat and promote quality over quantity.**

Meat consumption increased worldwide during the last decades following a global increase in wealth, but this was centred in developing countries. Eating meat has represented success and status[1] since the origins of humanity. With the advent of social networks, a correlation can be observed in Twitter between high levels of good sentiments (70% positive) and meat consumption[5]. It is also the primary source of fat in our diet, so it can explain why societies with improved average wealth rate higher on the obesity index.

However, there is an emerging trend towards moving meat away from the centre of the diet[21]. People are looking for different alternatives to massive meat consumption and ways to maintain protein intake. Insects are a potential and sustainable protein alternative. Most people will not directly eat bugs due to social and cultural beliefs, but making them acceptable through protein powder or flour[29] is an option to make this form of protein less disgusting. As the United Nations urges people to shift away from meat and dairy diets[33], independent chefs and restaurants are innovating by introducing complete meals with no meat in burger buns as a substitute for beef[32]. It is not about vegetarianism but about finding a balanced diet where meat can be combined with other foods. Meat quality, farming processes, and industry practices towards animals also play important roles to people who desire to engage in a more responsible meat consumption.

# TREND SIGNALS





In 1922, Anthony LaFrieda opened a butcher shop in Brooklyn, NY. He ran the shop with his five sons, who learned the trade and become butchers. In 1950, a meat workers' strike made it difficult for New York City restaurants to get the meat they needed. They seized the opportunity and begin servicing restaurants. They opened up a shop in New York City's meat packing district on West 14th Street. The shop is on the second floor of a building with no elevator, so they had to carry 200-pound saddles of beef on their backs, up a flight of stairs — no easy task. Today, Pat LaFrieda is a famous and well-known American meat distributor and butcher working with his own farmer partnerships to control quality processes that create a quality meat and providing a warranty on traceability of every piece. One of their clients is Shake Shack, a famous burger chain store in North America claiming to have the best burger revival ever that focuses on meat quality.

Similarly, some American fast food chain stores are worried about the bad press around their food, specifically about their meats and their processes. They need to take back ownership of their food options and provide good choices to customers. This is the case of Chipotle, where they guarantee that none of their meats have been treated with hormones or antibiotics, and are raised on a free range farm. "Food With Integrity" is their commitment to serving the most sustainable ingredients they can find, raised responsibly and prepared using classic cooking techniques. These behaviours around meat also extend to their other ingredients. Vegetables are grown in healthy soil, and pork is sourced from pigs that are allowed to freely roam outdoors. Restaurants start to follow as customers seek for more sustainable meats.

## EMERGING OPPORTUNITY

Consumers start to feel uncomfortable with meat industry processes and are, therefore, eating less meat, deciding over meat quality rather than quantity or frequency. Decreasing meat consumption could help improve food preservation processes for F&B businesses providing quality and sustainable meats.

## REGIONAL IMPACT

North America is, by far, the leading region in a consumer-aware demeatification process where quality stands over quantity. Although still a minority trend, better sourced meats are starting to gain traction in major cities all over the globe.

# BEAUTYFOOD

**People expect food to be not only tasty but also beautiful. In the era of digital imaging and broadcasting experiences to social networks, an image helps create a stronger message, telling something about the person who shares. People are what they eat, and now also what they share about the food they eat.**

Proper eating manners at the table are often perceived as a sign of status. Meals are messages and individuals are defined by what they eat, where they eat, whom they eat with, when they eat and why they eat a particular food[4]. What people choose to eat shows attributes like their socioeconomic status, ethnicity, gender or lifestyle[8]. In the modern connected society today, status is shared not only by those sharing the table but with a broader social network of people who are subscribed to digital updates. Twitter, Facebook and Instagram represent expanded networks where status helps build one's individuality and social respect. Food has to impress[4] not just oneself, but also everyone else.

The new popular cuisine is going through a process of simplification. It is rethinking food from its foundations, having a make-under, eliminating artifice and decoration while keeping it pure[30]. Local food movements are helping consumers to rediscover regional food after generations of rejection, tagging basic food as a romantic and vintage cultivation of tradition[4]. Common factors attributing to how a person experiences food include satisfaction, convenience, freshness, and sustainability. Nowadays, part of the satisfaction, convenience and freshness is enhanced by visual stimuli. As an example, chef and Instagram superstar, Jacques La Merde, recreates haute cuisine dishes from the world's top five restaurants with an array of popular junk food like Doritos, Velveeta canned pasta, or Cheetos.

# TREND SIGNALS







A clothing brand, UNIQLO, recently released a cooking app for Apple systems that matches outfit, food and music. For their 'UNIQLO RECIPE' project, the brand brought along 6 emerging chefs from the USA to try and develop original and simple dishes inspired by the brand's own ethos, "Clothes for a better life, for everyone, every day". Certain UNIQLO outfits inspire each of the recipes, both aesthetically and materially (mainly by colour and texture). This project tries to transcend the merely culinary, linking food to emotions and portraying the importance of beautiful food for modern societies. The app acts as its examples' showcase. On a different side of the spectrum, Ayako Suwa is trying with her creations to evade established food tags such as gourmet or nutritional value. She has built her activity around a mindset that promotes eating as being alive, and tasting as a feeling; thus emotions such as happiness, regret or anger are much needed for an individual to evolve. Ayako founded her company Food Creation in 2006 after

graduating from the Kanazawa College of Art, and has been putting on gastro-events incorporating multisensory stimuli on themes dealing with instinctive human desires, behavioral anthropology, curiosity and evolution ever since. For her, food is the one and only medium of her art: give her a word, a colour or a brand, and she will come up with a palatable concept around their taste. From her Tokyo-based studio, she has developed edible installations for galleries, magazines and luxury brands.

## EMERGING OPPORTUNITY

People want simple, beautiful, and shareable food. F&B businesses must train their employees to create a consistent visual experience beyond taste and freshness that allows customers to express themselves through the enticing food they share on social media. Food is for sharing, not only through physical channels, but also digitally.

## REGIONAL IMPACT

Europe leads (closely followed by North America) the trend of presenting food in a visually attractive way that entices consumers to develop a taste before actually tasting. Fine dining restaurants all over the world have also mastered this concept.

# AUTHENTICITY

**Ethnic identity is being defined and it is an exciting time to live, with a mix of tastes that helps to satiate modern society's restless palate. Authenticity continues to rise, pushed by independent chefs, restaurants, and eateries. They are returning prominence to the food-savvy customers.**

Homogenisation of the food industry's production and distribution processes makes foods less authentic. Diversified supermarket aisles may offer multiple choices per product, but, it is branding that generates uniqueness. Also, restaurants are affected by this process of "brandification" and often get lost among a swarm of similar places, experiencing a drop in their perceived authenticity. Italian, Greek, American or you-name-it country cuisine is "productised" and "brandified", losing both its roots and meaning.

People suffer from the restless palate syndrome[29], and they are eager to discover and taste new things everyday. The search for authenticity is defined by finding new flavours, new products, and radical mashups not only in restaurants but also in fashionable so-called food labs[29]. Japanese snack foods, piquant honey, vegetable yogurt, seaweeds, oysters everywhere, kolache, cod, wraps, gyros, ugly root veggies, shao bing bread, Crème de Pamplemousse or the rise of hummus[28,29] are some of the trendy ingredients or dishes contributing to the trend towards authenticity. Taste defines how authentic a particular food is, and nutrition plays a small part in it[4]. So, perceived as procuring higher quality ingredients[13], restaurants provide, inherently, a greater degree of authenticity. However, although independent restaurants have a competitive advantage over big players[9], they struggle to focus either on art and discipline of food or business efficiency[3].

## TREND SIGNALS







Sinpopo Brand was started as an ode to Katong and its heritage in Singapore. In the late 60's, Katong was well-known for its unique Peranakan culture and cuisine. Today, Katong is completely different, with a plethora of Western food and the heritage businesses being crowded out. Upon witnessing the displacement of traditional Katong businesses, Sinpopo's team felt the need to put the "Katong" back in Katong and to have something with distinct local touches. Started with simple nostalgic food, Sinpopo has a new menu and new décor to match. Much more than a coffee shop, their menu boasts a personal rendition to familiar local dishes. Enjoy a casual weekend snacking on their unique luncheon crisps and crispy crab wontons, or have a dinner date over their beautiful house special Nasi Lemak and bone-in pork chop with curry sauce. On a more educational approach to authenticity, created in 2008 in response to the lack of education around heritage breed pigs, Cochon 555 is an American chef collective, celebrating an

event series that started from a thread of conversations where family farmers struggled to educate chefs, restaurants looked to source exceptional ingredients, and consumers sought out responsibly raised proteins. They all converged into one idea: the ultimate quest of authentic flavour. Chef Yamata will perform a ritual before he sets off to carve your tuna head. He will do something special with his nut necklace and blow the conch shell and say something in Japanese. It is all a lot more mysterious when you do not understand the language. Their event and tour is aligned with the modern-day good food movement — notable chefs, trailblazing individuals, artist-like butchers, spirited bartenders and brazen pastry talent.

## EMERGING OPPORTUNITY

As a result of everyone's need to satiate their palate with a variety of flavours, unique and ethnic foods are enticing consumers to try alternative exotic food choices. Modernising traditional cuisine provide F&B businesses with a differentiation element that creates authenticity and a brandified experience around their food.

## REGIONAL IMPACT

With global culture spreading faster than local traditions, there is not a region leading this trend yet. New activities, eateries and chefs emerge everywhere, creating alternative ways to connect with food and people. This constitutes a very good opportunity to connect traditional food to global emerging trends.

# JUNK FOOD DELUXE

**Fast food chains are adopting the process of "chefication" for the masses, converting ready meals into pieces of affordable culinary art and tastier experiences. A synergy between popular food and haute cuisine is emerging to turn traditional junk food into 'enhanced fast food', no longer junk.**

The most observable phenomenon of cultural globalisation is the sprout of fast-food chain stores everywhere around the globe. The archetypical burger stores like McDonald's and popular coffee brewers like Starbucks are not only colonising cities but generating a horde of regional imitators copying their model with a local touch. Junk food is not anymore just about fat, sugar, and sodas but about serialised mass production of food served instantly.

Fast-food sentiment varies by country[5] and is highly correlated with previous experiences and exposition to fast-food chain stores. Basic and fatty ingredients define a childhood experience for almost everybody in Western societies, creating a present memory of self-indulgent tastiness. Junk food becomes a nostalgic experience that resembles childhood happiness and is embraced as a vintage sophistication[4]. It is accessible, omnipresent and represents a perfect network to experiment with a process of "chefication" for the masses. Big-name chefs collaborate with fast-food chains[28], abandoning four-star dining and Michelin-star restaurants to feed the masses with less risk[29]. Creating better tasting food, removing the junk part of it and making it more affordable is the goal for franchised stores[28]. Translating the experiences of haute cuisine to the streets is the probable marketing goal for these chefs. Experiments such as the five-course posh Restaurant M in Tokyo by McDonald's are signalling this trend.

## TREND SIGNALS







At Franco Manca's, a pizza is not just a mass produced item delivered without much attention whatsoever. At Franco Manca's, pizza is deemed as an item of prestige, from production to delivery. Its slow-rising sourdough takes about 20 hours to be ready, and after the best ingredients have been put into place, the dough is baked on a 'tufae' an Italian brick oven. No less than specialised 'artisans' from Naples work to make each of their pizzas a unique experience. The processes that take place in the store make for a culinary delicatessen: the slow levitation and blast-cooking lock in the flour's aroma. In other words, this is a crust nobody will discard. Another example found is Singapore's Grain Traders, advertised as 'more than your typical, causal, lunch-time joint'. Catering for fast-paced city workers, it aims at offering convenient, hearty comfort food in a cosy environment. While convenience also means fast, they do not think it has to weaken their attentive way of treating customers, by any means. They offer healthy and tasteful combinations of

ingredients, setting them apart from other fast food chains. Their well-designed spaces help complete the whole eating experience reinforcing the idea of having much more. Their meals can double the prices people pay at McDonald's, but the perception around it is that is really worth the money. They provide the overall impression that: "It's not just that it's worth it; it's a pleasure."

## EMERGING OPPORTUNITY

Simple food from fast-food chains, previously thought of as junk food is making an interesting comeback as haute cuisine. Famous chefs are encouraging this new drive for food that creates a nostalgic nod to the childhood experiences in Western culture. F&B businesses can embrace production processes with better food quality.

## REGIONAL IMPACT

Starting to gain mainstream traction in North America and Europe, this trend emerges amongst global brands that are trying to differentiate from small local eateries. In Asian cities like Singapore, the same global McDonald's created a gourmet truffle fries for the local customer.

# RITUALISATION

**People are eager to accept food rituals as indivisible parts of the experience. Foreign food experiences are perceived as items of prestige, and people tend to follow them. Ritualisation of everyday experiences around simple food, such as coffee-making, creates a feeling of desirability and exclusivity.**

Eating a meal is a cumulative experience in which food, time, space, and social factors contribute to the final result[8]. Haute cuisine restaurants know this and define their services based on techniques of experience design. Food is carefully selected and plated, timing is controlled, interiors and furniture are perfectly designed, and exclusivity is created by limiting daily customers. Usually, people do not go into this kind of top-notch restaurant to choose from a menu, but to have an entirely designed experience that is memorable. Through such food ritualisation[4], customers worship the experience.

Creating a ritual around a particular food promotes an increase in consumer demand. Using unusual artefacts or nouveau ways of eating contribute to defining the overall experience. The symbolic meanings of meals vary across individuals and ethnic groups[8], so interchanging cultural food elements between different cultures creates perfect candidates for new rituals, such as sitting on your knees on a tatami, barefoot, and using chopsticks. Other experiences include standing up in a crowded bar with a wine glass, eating small-sized bites called tapas, or using lettuce leaves to cover a Vietnamese roll and eating it with your hands. Look how your coffee brewer whisks hot milk to form a drawing on top of your cappuccino, or even wait in a queue to discover if you can have dinner at a restaurant that accepts no reservations. All of them make perfect rituals, in which experiences go beyond tasting and contribute towards creating a halo of exclusivity.

## TREND SIGNALS







A modern ritual is created with the Madrid-based Academia del Despiece, a teaching centre and gastronomic gathering place with the possibility of tasting new food. Their main goal goes far beyond just the cooking experience. It is a table where new creations can take place, a classroom where academics share creative new culinary processes. Twelve academics/diners gather around a table, which turns into an interactive whiteboard. All the necessary information is offered so that each course of food becomes a learning opportunity. An academy without teachers, where the food material draws the line to follow, and a digital system guides the learners during the tasting process. This tool allows the experience to be didactic, interactive and funny. A ritualised food experience around new food tasting and learning is achieved. In order to create enticing new rituals, food companies around the world are developing new experiences for their patrons. Pinch Food Design is a bold new brand of catering powered by a state-of-the-art kitchen and design workshop devoted solely to the creation of one-of-a-kind "food furniture." Their intention is to impress, entertain and inspire with food as delicious as it is daring, and design as inviting as it is innovative. Led by the groundbreaking chef/designer duo of Bob Spiegel and TJ Girard, the Pinch team is driven by an uncompromising commitment to incite surprise, anticipation and delight with every bite and imaginative presentation combinations that redefine the art of celebration. As top-tier NYC culinary veterans with a lot of experience in event catering, they strive for an experience that leverages the best food with never-before-seen presentation.

## EMERGING OPPORTUNITY

Designed experiences beyond food contribute to the feeling of desirability and exclusivity when eating out. These details encourage customers to idolise services as memorable and F&B businesses can design every aspect of the experience to look natural and casual.

## REGIONAL IMPACT

Rituals are present all over Asia, leading the trend by tradition, culture and modernity at the same time. Cultural rituals are creating new modern rituals, and Western regions are starting to copy, adopt and merge theirs into their own cultures.

# CRAFTSMANSHIP

**Hordes of cultured individuals are establishing the roots of new modern craftsmanship in cool neighbourhoods of major cities. Looking after every detail from ingredients to packaging, new artisans create small batches of extremely tasteful, delightful and exclusive products.**

In a time when everything homogeneous is the norm, customers' desire shifts towards novel experiences[18]. It is a time to rediscover real food hidden behind supermarket shelves, far from the industry and its mass-produced products. A grassroots movement inspired by small villages and artisans evolved in hipster neighborhoods around the globe. Handcrafted foods are trending[3]. New modern artisans root their craftsmanship in traditional techniques that avoid industrialised raw materials and ingredients. Everything must be hand-picked, hand-crafted, hand-brewed, and made with love. It is, of course, a hand of one-upmanship. There are no big companies, no big corporations, just small batches. Carefully thought-out and designed, products are hand-packaged in a way that offers much more than information; it appeals to who you are. Small is the new big, and small is precisely what the industry cannot provide.

Craftsmanship provides first-hand information on a product's origins and the process used to produce it. A small artisan can trace its production up to tiny details and tell a story about how it was produced, based on whoever's family recipe. It provides a personal human touch. Craftsmanship, although pricey, provides a value proposition and advantage difficult for the industry to overcome. Hand-crafted products include not only ketchup, mayonnaise, pickles, beer, mustard, bread, and pastries, but also meat, fish and dairy products with attributes such as grass-fed or free-range animals raised to determine expected quality of the product.

# TREND SIGNALS





With an increasingly fast-paced lifestyle and the overexposure to processed foods, some brands are starting to differentiate themselves through the opposite strategy. Companies like The Hunters' Kitchenette make their products stand out because of the way they are prepared. They take pride on their nut butters for being handcrafted with careful selectivity steps that guarantee their rigorous standards of quality. It is all about what Herbert, its owner, would want for his family: "A great product crafted with love and hard work from the best raw ingredients, nothing else." It takes time, but the process itself is what gives the product its value and uniqueness. Herbert's stance is similar to what one can find in Singapore at Shermay's; her passion for sauces and Singapore's heritage led Shermay to bring back to life some of her family's sauce recipes, and today she handcrafts them with meticulous attention, selecting only those ingredients deemed fit by her high standards, without added preservatives, colourings or thickeners. And as it often

happens with crafted goods, there are no equal batches, each one might have a slightly different flavour. And that's when you know your tar is special. Or take Chye Seng Huat Hardware, where the co-founders reclaimed an old hardware store and turned it into a haven for coffee drinkers. Every step of coffee making can be appreciated here, from the roastery to the tasting room. Coffee then acquires the status of a craft that customers can appreciate, experience and taste. Making these processes accessible helps tell the story of the product, making us relate to its meaning. A sense of uniqueness that's present with every single sip we take.

## EMERGING OPPORTUNITY

People are looking for niche, novel and exclusive food experiences. Opportunities for F&B businesses lie in creating richer, hand-crafted or artisan food products and practices. The experience itself is completed with the artisanal story that's told through the food, showcasing the love put into each product and nourishing customers.

## REGIONAL IMPACT

This trend mostly emerged in the last five years in young neighbourhoods around major cities in North America, and in a lesser degree, Europe. The craftsmanship and hand-crafted trend is starting to emerge slowly in every major cities in Asia and Latin America.

# HYPER CUSTOMISATION

New generations expect experiences around food to be personalised and customised. People are willing to imprint their tastes, preferences and aesthetics on everything they consume. It is not about providing a few options to choose from, but allowing for everything to change in real-time.

Everything people choose creates an individualised image of who they are. Standardised experiences tell monotonous stories that are not accepted anymore. How satisfied people are with a particular lifestyle varies by individual and is shaped by context, culture and, to some degree, genetics[20]. Allowing space for individuality needs to be part of every product or society. It is not just a coffee for everyone anymore. It is the age of customised products for everyone, a pricey option that allows every individual to express his or her inner self. Those tiny details create a stronger image of attitudes, principles and beliefs.

However, it is a generational shift towards hyper-personalised products and services. Generations before the Millennials do not pay much attention to personalisation. Having a few simple options to choose from and allowing some degree of individuality is enough. Nowadays, everything is different. Individuality is expressed through uniquely personalised and customised experiences. It is not a hamburger; it is "my hamburger". Hyper-personalisation integrates individual preferences, tastes, stories, and aesthetics into everyday products or services. It creates personal messages, moving marketing and design beyond niche segmentation. Desiring individualised experiences, people are willing to be part of it, having everything customised in their sight.

# TREND SIGNALS







Maki-san is a Quick Service chain in Singapore that prides itself on its unique one-of-a kind customisation concept, where customers can DIY their own maki roll from scratch. Maki-san encourages its customers to be creative with their choices, which is easy with more than 80 ingredients that customers can choose from to put in their maki roll or incorporate into a salad. Their ingredients range from ordinary sushi ingredients, like raw salmon, to the unique, such as parmesan cheese. They also include many localised ingredients in their assortment, such as char siew and Thai chili sauce. Patrons fill out their desired fillings for a sushi roll that is created, rolled, and cut in minutes and is uniquely made for them. Their rolls are served in pretty designed boxes, which adds to the experience of receiving a "gift" of your own sushi creation. Daniel Holzman and Michael Chernow's early plan to serve meatballs out of a takeout window in New York City evolved into an obsession to focus on meatballs exclusively. And the idea for the Meatball

Shop was born: a counter-service operation with a build-your-own-meal menu, featuring five kinds of two-ounce, house-ground balls, various sauces, and a range of options (slider flights, heroes, pastas, and sides). Customers sit down, grab a felt-tip pen, and mark their order on wipe-away laminated sheets. Although the basic menu is quite simple: pick a meatball, pick a sauce, pick a delivery vehicle, the combinations add up quickly. Salmon meatballs with parmesan cream? Pork with mushroom gravy? Those who like to design their own way through a menu will appreciate the creative freedom. With an ambience that's hip and laid- back and with so many customisable options, The Meatball Shop instantly became a favourite in NYC.

## EMERGING OPPORTUNITY

Millennials and younger generations demand experiences to be tailored to let them express their individuality. Same product for all is no longer accepted and marketing messages, product choices, tastes and preferences must be optimised for customisation. F&B businesses can leverage this opportunity to create loyal customers.

## REGIONAL IMPACT

Customisation appears mostly in big North American chain stores, spreading after that to Europe and other type of F&B businesses. Asia is still pretty slow in adopting customisation because of the specialty dishes created at traditional food stalls.

# TECHNOLOGY DISRUPTION

**Technology disruption has already happened, more evidently in the digital space. Since the inception of the Internet, technology has been advancing at an incredible pace, impacting industries and social layers. Massive democratisation plus a huge and increasing population has catalysed multiple ways in which technology affects the food industry.**

As technology continues developing and we become more and more entwined in a technical and digital world, our reliance on the Internet and our devices determine how efficient our processes, or even life, are; the way we communicate our messages and engage our customers; and even how convenient and cohesive services are delivered.

Democratisation of knowledge and information has created an ecosystem where learning about new tools, methods or technologies is not local anymore. Everything today is executed in a global scale with global repercussion. Information travels faster than we do, and what happens today in Singapore is seen a few minutes later with expectation in New York, and viceversa. Ideas shift and evolve to an ever adapting world where change is constant, where change is the new normal. There is no more calm after the storm, as we now live in a permanently moving storm changing things as it passes by.

In this scenario of neverending change, a blooming ecosystem of start-ups and tech companies lead the way towards a connected, intelligent and venturing industry. It is the observation process of entrepreneurs all over the world that identifies gaps in the F&B industry, or any other industry for that matter, and materialise new business ideas to fill those gaps, monetise them and test them on a local scope to later shift

into a global scale. It is important to applaud the smart ways these startups create synergies across customers, business owners and industries, to deliver great services or products, reinventing or reinterpreting the way things are done and thought.

Technology can affect the food industry in many different ways, but it is possible to identify how things are grouped together, creating clusters of ideas that are related or that try to solve a common issue or gap. Depending on how fast or slow those groups grow, or even how much media attention they get, it is possible to foresee key trends which might represent a possible future for the industry as a whole, for categories in the industry or for smaller types of areas within the industry.

In the following pages you can find some trends representing how technology is affecting the food industry. These trends have been grouped under five categories that speak about the reason why technology is used for, like helping companies to stand out in an overcrowded industry; create communication channels to identify, select and recruit the best staff; make it easier for customers to choose where and what to eat; disrupt the way distribution channels and the food chain work; or improve customer experiences to a level where loyalty is given and companies crave to delight and wow customers into complete brand advocacy.
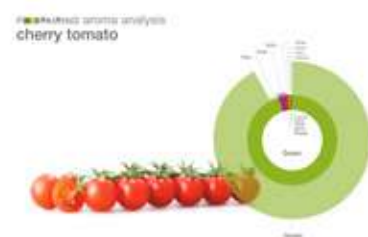
Technology is the seed of the future in which we will all live very shortly.
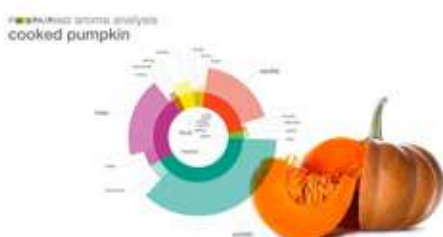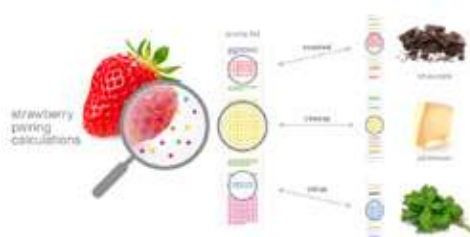
Foodpairing® 2017          Foodpairing® 2017          Foodpairing® 2017

# STANDING OUT

In terms of food, it is clear that younger generations crave newness, the innovative, but the industry should not forget about older generations, for whom differentiation is still a defining key factor when choosing a place to eat. In any F&B outlet, everything revolves around the product itself, and the rise of machine learning, artificial intelligence and computational analysis have brought forward many ways that these systems can help us envision new culinary paths. Development tools such as Foodpairing®[36] use the science behind flavour matching in order to propose new combinations for chefs to try at their kitchens, many of them quite uniquely surprising. These services consider nutritional facts, costs, consumer surveys—everything to achieve much more enticing menus. Although this helps to attract customers, their opinion has never been easier to get. New apps, like Servy[37], make getting extensive feedback much easier, connecting restaurateurs with their customer's thoughts. As IBM's Cognitive Cooking program shows[38], it is all about gathering data and using it for building better, newer, unique strategies and products.

# IT'S A MATCH!

Your workforce has to comprise committed, skillful representatives of what your company is all about, you cannot afford to wait for them to come knocking at your door. With the advancement of social networks and the facilitation that the Internet brings to communication efforts, the connection between employers and potential employees gets reinforced. Working networks such as Culinary Agents[39] act as a marketplace where both get in touch and establish their collaboration. However since working is, in many cases, no longer just about the money, companies struggle to retain their workers and make them feel belonged. Companies try to signal themselves as something more than just companies, and social media help them project and build a better image, like in the case of McDonald's 'Our Food. Your Questions' platform[40], where customers' questions about their products and processes get answered publicly. These kind of movements towards transparency help retain employees by engaging them in what seems to be more than just another shady fast food company.
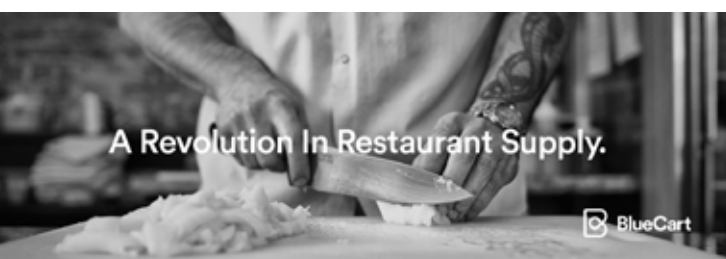
# MORE WITH LESS

Processes should not get in the way of offering unique food experiences, and technology can be the greatest ally to achieve more efficient methodologies and taking faster steps in our activities. A big amount of effort is lost to internal processes such as ordering, managing inventories or reservations. Platforms like Bluecart[41] or Olo[42] help restaurateurs automate orders and inventory checks, both to suppliers and from customers, while others such as Nowait[43] manage waitlists, saving time and money. But it is not exclusively about apps and digital platforms. Machinery can also help F&B businesses get more output with less. Professional grade 3D food printers such as 3D Systems' ChefJet Pro[44], or tailored coffee makers such as the Poursteady[45] help you achieve what you wanted almost effortlessly, no longer catering products to target groups, but to individuals, with no big hassle, helping you enlarge your market to everybody! And with regards to food wastage, we can also have a look at Kickstarter projects aiming at producing edible cutlery or platforms such as MOGO[46], connecting food excess from restaurants to customers willing to save money.

**GRAIN**

## SEAMLESSLY

Let's face it: Great food + Deficient Experience = Meh. That's why designing customers' experiences is so important. Seamless experiences involve lots of little details in anyone's journey map. But some apps are helping. Let us take reservations for example: They are sometimes too hard to get, and they generate friction sometimes. Well, apps like OpenTable[47] and Reserve[48] help you handle all that from your smartphone without the need for trial and error approaches. And when it comes to paying and splitting the bill, why not use apps like TabbedOut[49] work for you, so you can focus on enjoying your food and your company? It all contributes to a seamless experience, but when you just want to eat that delicious dish but you feel too tired to go over to that restaurant? Then you can trust platforms like Crunchbutton[50] to get your meal from curated restaurants around town, or you can try the ever-changing menu of Singapore's Grain[51]. It will be delivered to your door so you do not need to get out of your pyjamas.

Supper Club App® 2017

Supper Club App® 2017

Supper Club App® 2017

## YOU MADE MY DAY

When the food and the experience around it are successfully crafted, the whole thing is bound to be well received. But there is always room for improvement, and enhancing good eating experiences creates something even better: Fans. Customers so deeply delighted by their experience that they are eager to tell their friends and praise it on social media. So, with technology, many initiatives are taking place. MealPal[52] lets you subscribe to a weekly curated tour by the most appealing restaurants around you, so you do not even have to think about where to eat. It is a designed experience around food, and that adds up to its value, as does Supper Club[53], where people get connected to share eating experiences and enjoy food together. And now imagine being able to cook your favourite's chef dishes at home. That's what Plated[54] can do for you, sending away everything you need. It is about empowering access to unique experiences and the best service delivery through technology and turning the digital realm into the entry point for the best you can offer around food.

# QUICK SERVICE RESTAURANTS: FROM INSIGHTS TO CONCEPTS

## AUTHORED BY FAST FORWARD

Quick service restaurants are commonly classified as fast food outlets, attaining most of the negative connotations associated with junk food in terms of food safety and quality. The truth is these kind of restaurants offer convenient bites for a stressed society lacking time to buy, prepare and consume food on their own. In this studio, we research around service experience and productivity for customers and staff at quick service restaurants.

A SNAPSHOT:

# QUICK SERVICE RESTAURANTS

PERSONAS

OPPORTUNITIES AND INSIGHTS

CONCEPTS

Foodie

Student/ Part Timer

Healthy Eater

Food Innovator

Operations Manager

Kitchen Manager

Delight Customers For Brand Advocacy

Simpler Processes Increase Productivity

Streamline Service Experience

Create A Culture For Talent Retention

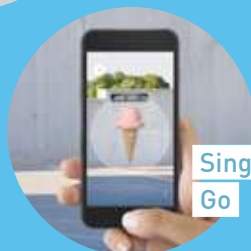Lead Business Innovation And Growth

Hyper Engagement

Capture The Badge

Streamlined Fast Food

Social Media Content Bot

Singafood Go

Food Mood

> **Singaporeans have kind of lost their appreciation for what they actually had, to compete in the global economy.**

**PERSONA 01**

# Alice Cheung

Foodie

Alice is a young Singaporean female working as a designer. She craves good food, gastronomic experiences, and everything around the services that Singapore offers in the F&B arena. She offers a clear overview of the whole industry with its strengths and its weaknesses, as a regular consumer.

**NEEDS**

To access diverse cultures through their cuisines and eating experiences

To find cheap yet meaningful food experiences

To see increased balance between taste and healthiness in menus

Stronger branding for Singaporean food

**CONCERNS**

Your 'flavour background' conditions your food choices

Singapore's food heritage is endangered

Thinks traditional food is not 'instagrammable'

There are contradictions between people's intentions and their food choices

**QUOTES**

*"Japan and Korea are the taste makers in Asia. If it is big in Japan and big in Korea, it works its way into the rest of Asia."*

*"Local food is the easiest, cheapest and fastest way to access a culture. Where else can you have a culinary adventure for less than five dollars?"*

"
**If you're going to be serving the customers and they are very rude [...], you are going to hate your job.**

PERSONA 02
# Ronald Koh
Student / Part Timer

Ronald is a local college student exemplifying those who has the experience of working in the F&B industry as part-timers for several companies.

**NEEDS**

F&B businesses to be more open to trust them

He thinks tradition can get attention if it is updated

He thinks having a job in an F&B company helps you empathise and learn

If an item is appealing enough, waiting or spending more money on it is acceptable

**CONCERNS**

Distrustful of F&B businesses' claims about their food
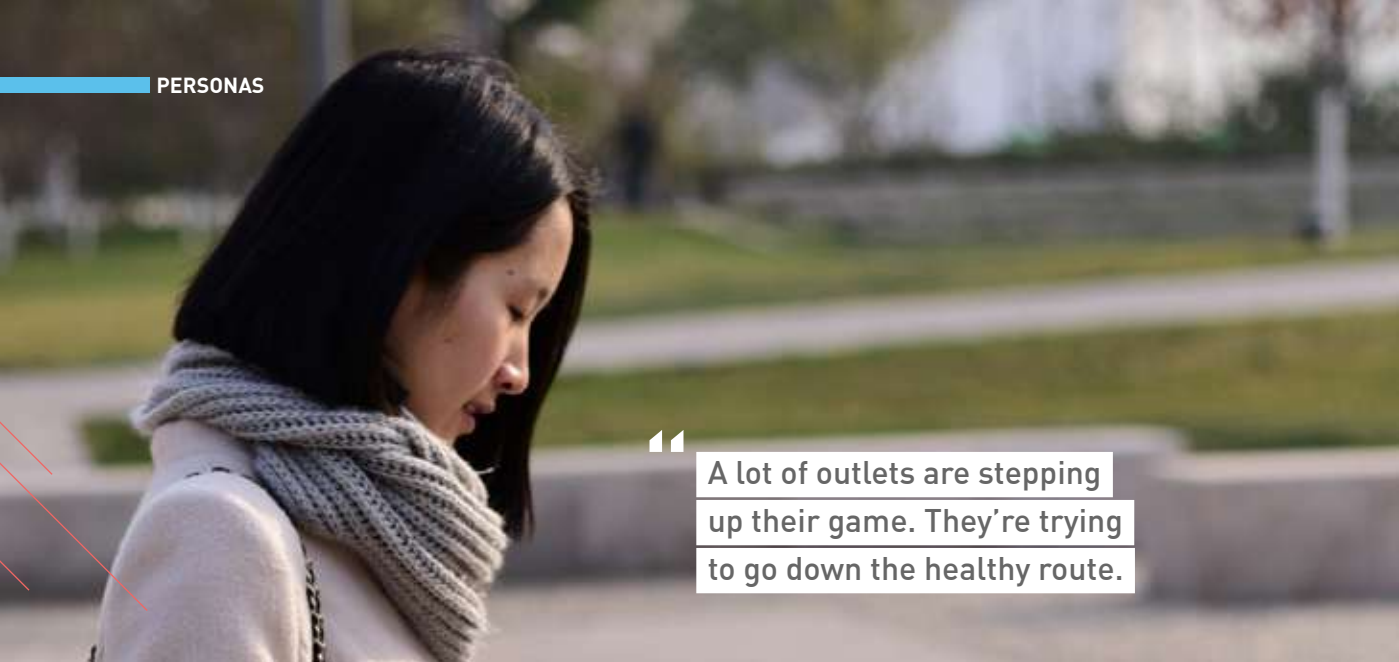
F&B jobs are not appealing at all

He has no choice but to outsource feeding

Working in service is tough, people are often unpolite

**QUOTES**

*"The very key difference is the cleanliness of the place and price, obviously."*

*"They [restaurants] can say [their food] is healthier, but I'm sure that it's not as healthy as they claim."*

> " A lot of outlets are stepping up their game. They're trying to go down the healthy route.

PERSONA 03

# Rebecca Huei

Healthy Eater

Rebecca is a local female working in a company offering financial services. She is very interested in knowing where the food she eats come from, how it is processed and the implications on her health. She is concerned about healthier options for food, and how that is affecting the F&B ecosystem in Singapore.

**NEEDS**

To be able to combine both healthy and tasteful ingredients

To see the cooking process in order to gain trust and increase her enjoyment

To feel a certain degree of uniqueness and attention to detail in each of her experiences around food

To be able to customise her food in an easy, fast and seamless way

**CONCERNS**

Fear of health issues may deter from trying new things sometimes

Authenticity to be quite hard to replicate when it comes to food and, as a result, it is hard to come by

Having options to choose from is OK, but too many options are inconvenient

Mass-marketed food is unappealing

**QUOTES**

"People are just generally more stressed out and they compensate for that by eating healthier."

"Before I try any new place or restaurant, I check it on the Internet or these food blogs. Ambiance is very important. "

" Food has an emotional string in each and every one of us. [...] It's the smell. It's the colour. The permanency.

PERSONA 04

# Ken Wong
Food Innovator

Ken is a Singaporean male running an experimental kitchen dedicated to the investigation and testing of food and beverages, and the creation of solutions for future implementation. He is passionate about his job, and has a great interest in the historical processes that lead to food rituals and the diverse cultural approaches.

**NEEDS**

To see traditional food being promoted and reformatted

To create multi-sensory experiences that will catch consumers attention

To link food to feelings

Creativity to be one of the driving forces to stay ahead of competitors

**CONCERNS**

Consumers have decreasing attention spans, and it is harder to surprise them

Afraid of losing traditional food forever

Younger generations are pickier and more informed

Vocational skills are often less valued than paper qualifications.

**QUOTES**

*"I don't want to come a day where about 50 years down the road, nobody will be drinking traditional coffee anymore. I*

*hope that in 50 years time, I will go to Africa, I will say kopi and they will know what this is."*

> **If you make the food in a happy and more emotional way, the food will look nicer and taste better.**

PERSONA 05

# Jiang Jiawei
Operations Manager

Jiawei is a local female working for a quick service chain and she is in charge of operations and business expansion. She has a lot of experience in the F&B industry in Singapore: She is aware of the ongoing changes and challenges, and she thinks that many businesses in Singapore fail to deliver good experiences to consumers.

**NEEDS**

To update traditional food experiences for youngsters to appreciate them

To build cohesive teams in order to improve performance

To bond at work to retain employees and make them feel valued.

To promote healthier food consumption in Singapore to benefit society as a whole

**CONCERNS**

Locals will not work in F&B businesses

Having an unreliable workforce flow

Managing employees' desires are difficult

Generations clash when it comes to chose eateries

**QUOTES**

*"I think Singaporeans are fully educated on this, so they will go for the better and healthier food."*

*"You go to one outlet and you feel the place is dirty... You won't go in a second time and you won't take the food at all."*

> "Because we are working as a team, we have to build good communication.

PERSONA 06

# Kenny Ang
Kitchen Manager

Kenny is a local male working in Singapore's F&B industry. He is an experienced member of his company, and in charge of the management and dynamics of the kitchens.

**NEEDS**

To balance a diverse, multicultural staff and simplify communication

To appeal to job-seekers to avoid manpower issues

To find a way to forecast sales in order to minimise wastage

The company's vision and mission to be correctly projected by the staff

**CONCERNS**

Internal communication issues such as language barriers arise easily

The abundance of choice drives young people away from F&B jobs, usually considered tougher

There is a lot of food waste, and money is lost when that happens

Keeping your staff motivated is hard sometimes

**QUOTES**

"Working environment also has to be positive. Negative is common, but positive is not easy. But you have to be positive."

"Usually, if I want to communicate with staff that cannot speak English, I need a translator."

OPPORTUNITY

# DELIGHT CUSTOMERS FOR BRAND ADVOCACY

Serving customers is just a transactional process, a matter of giving them a product in exchange for money. Delighting a customer is a broader concept where customers become fans and advocates of the brand, product, services and culture around. It is a tactical approach to satisfy customer expectations and needs, converting them into super-fans by creating extreme differentiation.

INSIGHT 01
# MAKING TRADITION INSTAGRAMABLE

People access culture through food and food rituals. This is a sign of sophistication and can surpass language barriers. Kopi's rituals and language, for instance, comprise a precious variety of gestures that tell us a meaningful story. Singaporean cuisine and its culinary traditions form a unique cultural expression that brings many local opportunities and should be exported globally.

Valuing food heritage not only helps to preserve it, but when well-branded, also makes it exportable to the rest of the world. However, aesthetics prevail over the authenticity of traditional food, which is not considered sexy in a society where customer's knowledge is quite constrained to visuals.

Traditions are not instagrammable, and as such they do not find their way through social media. How would you adapt and modernise traditional cuisine? What processes might you add to food or drinks preparation to increase online shareability?

> " Local and traditional places have been here all along, but it wasn't until a few years ago that they kind of have a resurgence.
> – The Food Innovator

> " Traditional coffee is not sexy, it's a niche.
> – The Food Innovator

INSIGHT 02
# DO WHAT LOCALS DO

Having a local experience in hawker centres through cheap culinary adventures is a way to access the culture. This is a common option for foreigners to taste local flavours as the search for Singaporean authenticity is becoming trendy.

For foreigners, being authentic means getting as close as possible to what the original experience might have been. This may include going to the original source, experiencing local rituals and experiencing sensorial stimuli beyond taste, such as sound and textures.

How might you offer a unique sensorial Singapore experience in a quick service restaurant? How would you attract more foreigners by making your food more local?

> " Choosing culinary experiences that you can't replicate elsewhere; that is authenticity.
> – The Foodie

> " That's why foreigners go to Hawker Centres. They get a full Singaporean experience for just a few dollars
> – The Foodie

" Fans are people who can support your brand, and they can speak up for your brand because they know that it is part of something that is bigger. It's more than just profits.

### INSIGHT 03
# THAT COMFORTING FEELING

When a place steadily brings enough joy and contentment to a customer it becomes a comfort zone. Different aspects like convenience, familiarity and a reliable customer experience could turn an outlet into a comfort zone where customers fell well-attended and at ease. When these outlets are able to offer such conditions on a regular basis they place themselves at the top of their customer's preferences, ensuring higher chances of return and advocacy.

These places are positioned as go-to options when people look for a homey place to grab something to eat or drink.

What stages of food experience in your outlets require an "extra touch"? How would you change the space in your restaurants or stores to make them more comfortable and homely?

> "
> The customer experience is key to create a comfort zone.
> – The Healthy Eater

> "
> People, place, history shape comfort places.
> – The Foodie

### INSIGHT 04
# MY FOOD, MY LIFE

There are undeniable links between our food and our emotions. What we eat not only serves to nurture or delight us, but also represents a particular standpoint and it defines us as individuals in front of our peers. Food consolidates our lifestyle choices.

Singapore's multicultural approach facilitates cross-pollination between cuisines. This helps to avoid limitations present elsewhere and to breed new formats in response to a vigorous generation of youngsters reshaping what food is about.

How would you surprise an overstimulated generation? How might you assign emotions to the food you serve? How would you create a crowd around eating experiences?

> "
> Younger generations are more sophisticated, more discerning, more picky, more informed.
> – The Food Innovator

> "
> Trying new things is not necessarily expensive.
> – The Foodie

" When you have a customer, specially when it's a regular one, you're building a relation. It's like everyday you're seeing them, you remember their regular orders, something like that.

**INSIGHT 05**

# GOING BACK HOME

Singapore's development is steadily shaping people's eating habits. More and more meals are taken outside of the household and outsourced. Customers start valuing those eating experiences that can truthfully portray the homey comforts of what they cannot easily access anymore. That way food becomes much more than taste, it becomes cultural heritage, your home for taste.

Even when it goes unnoticed, every consumer has a flavour background conditioning his taste or preferences. Protecting those cultural expressions is a way to remember and honour your ancestors.

> " Being busy doesn't allow people to cook at home, so a longing for home cooked food has appeared.
> – The Student / Part-Timer

> " Your 'flavour background' conditions your taste and preferences.
> – The Foodie

**INSIGHT 06**

# KEEPING A SAFE EATING PLACE

Shelf life varies greatly in outlets dealing with diverse ingredients, and it is extremely important to follow strict safety procedures to avoid complications. Customers have the ability to report any safety issues online, which gives them the capability of ruining entire businesses. Businesses are quite aware of it, and there is a continuous increase in the time and resources allotted to ensure food safety. Nothing should go unnoticed.

> " With so many variables, you have to stay alert, remain vigilant.
> – The Operations Manager

> " Not taking care of food safety means a ruin for business.
> – The Operations Manager

**INSIGHT 07**

# I SHOULDN'T, BUT...

While customers' health awareness is now on the rise, there is still a deep dilemma they all have to face when it comes to choosing food. Healthier items are not as appealing as the tastier options, and so they hesitate between ideals and desires.

This situation leads to a certain degree of frustration, and makes it harder for companies to forecast what customers will consume.

> " There is a contradiction between what people want and what their ideal is.
> – The Foodie

> " Life is short; tastier over healthier.
> – The Student / Part-Timer

"
I greet the customer with a smile, and I say 'thank you'. We have to give this. It's not just about selling; we have to give something else for the customer to feel. An experience.

### INSIGHT 08
# LEGITIMISING PRICES

Pricing policies are often completely opaque for customers, and when the perceived value of a certain product does not meet their expectations it is hard to justify the price charged.

Also, regardless of the preparation costs, some dishes have higher social cachés than others, so customers are already willing to spend more on them. That willingness is also conditioned by different moments in time, but above it all affordability is still a prevailing aspect. Things like deals or promotions ease the customer's transition from wanting an item to actually paying for it.

How can you increase certain dishes' social caché in your menu? How would you get your customers to learn about why your prices are justified? How would you turn deals and discounts into signs of privilege?

> " To justify higher prices, businesses have to come up with better products.
> – The Food Innovator

> " Different dishes have different social cachés.
> – The Foodie

### INSIGHT 09
# SOCIAL BITS & BITES

The social aspect of eating has always been driven by the joy of sharing food or beverages. When food is shared, it becomes even more enticing and acts as a socialising beacon around which conversations and interaction flows.

However, more and more often social gatherings around food are being disrupted by electronic devices. People are seen together, but they are not really together. The use of devices brings people closer to what is distant, while dining experiences are getting increasingly disconnected.

How might technology be used to bring people closer at your outlets? How would you reconnect families and friends through eating experiences? How would you maintain customer's attention at the table?

> " Disconnected dining experiences: People are seen together but they're really not.
> – The Healthy Eater

> " Sharing food makes it more desirable.
> – The Student / Part-Timer

**OPPORTUNITY**

# SIMPLER PROCESSES INCREASE PRODUCTIVITY

Internal processes generate all the added value needed to run the service experience in a smooth, efficient and robust way. This happens behind the scenes, which means that customers cannot see it, but they can feel its effects, and it is strongly related with sales forecasting, optimising operations, reducing costs and time to serve customers.

**INSIGHT 10**

# MAKING INTERNAL COMMUNICATIONS WORK

In an F&B business, communication is key to make sure that the processes are delivered seamlessly. In a multicultural and international country, such as Singapore, communication and language issues between employees are very common. If ignored these issues can quickly turn into friction and will pose a big problem for the business.

A system based on trust and transparency can help employees with their daily tasks. Likewise, technology can help to standardise complex processes and improve the overall communication flow.

What processes can be simplified or redesigned to avoid communication friction? How would you use technology to fix communication issues?

> " As a manager, getting involved in everyday work helps your staff trust you.
> – The Kitchen Manager

> " We use a system based on images to avoid language miscommunication.
> – The Operations Manager

**INSIGHT 11**

# THE WILL TO CHOOSE AND THE ABILITY TO PREPARE

It is great to have many choices when choosing from the menu. A very limited offer can be harmful, as those places offering more choices are usually better regarded than those with less, and can easily draw more customers in.

On the other hand, too many options leave customers undecided. They need more time to decide what to order and this has an impact on the overall experience.

What processes can you put in place to understand what customers want? How would you add new products to the menu without increasing costs and time in the cooking process? How might you change the cooking process to offer a broader food menu with the same resources?

> " Customers like to feel like they have options when it comes to choosing from the menu.
> – The Student / Part-Timer

> " More information doesn't help you to know exactly what you want.
> – The Food Innovator

**OPPORTUNITY**

# STREAMLINE SERVICE EXPERIENCE

Service experience happens the very first moment a customer wishes anything from a business and ends when the product or service is used and consumed. All the touchpoints involved define the experience that wraps around the product or service. If it is cohesive, this experience can be memorable and delightful.

INSIGHT 12
# LOOKING FOR UNIQUENESS

Uniqueness and personalisation make certain food much more desirable. Specificity is the driving force behind what makes a customer go an extra mile for a restaurant either by distance travelled or time taken to wait in line.

Businesses can achieve this by bringing a higher level of sophistication to their offer. Many times the level of sophistication comes almost exclusively from the visual, with the help of social media and its overexposure. For example: the Starbucks model of boosting a basic good.

When food is no longer a necessity, it becomes culture. How can you create a story behind your best product? What rituals can you create around the food offer?

> " As a youngster, my lifestyle is fast and impatient - but it is OK to wait in line when I want something unique.
> – The Student / Part-Timer

> " Craving a certain dish makes me go to a specific place.
> – The Student / Part-Timer

INSIGHT 13
# THE COOKING PROCESS MATTERS

Witnessing the cooking process helps customers gain trust and to have a better understanding of the way their food and drinks are being handled. Customers find this a powerful and engaging tool; a form of art, where the skills of the chef are very valued.

Leaving the cooking process open also adds to the sense of craftiness and authenticity. How would you add a "show" during the cooking process without slowing down the overall food delivery? How might you keep surprising your customers on every visit, even for repeating customers? How would you communicate the story behind your food preparation process?

> " I sit on open counters because I feel I can control what the chef is cooking.
> – The Healthy Eater

> " Watching your own food being prepared adds experiential value.
> – The Healthy Eater
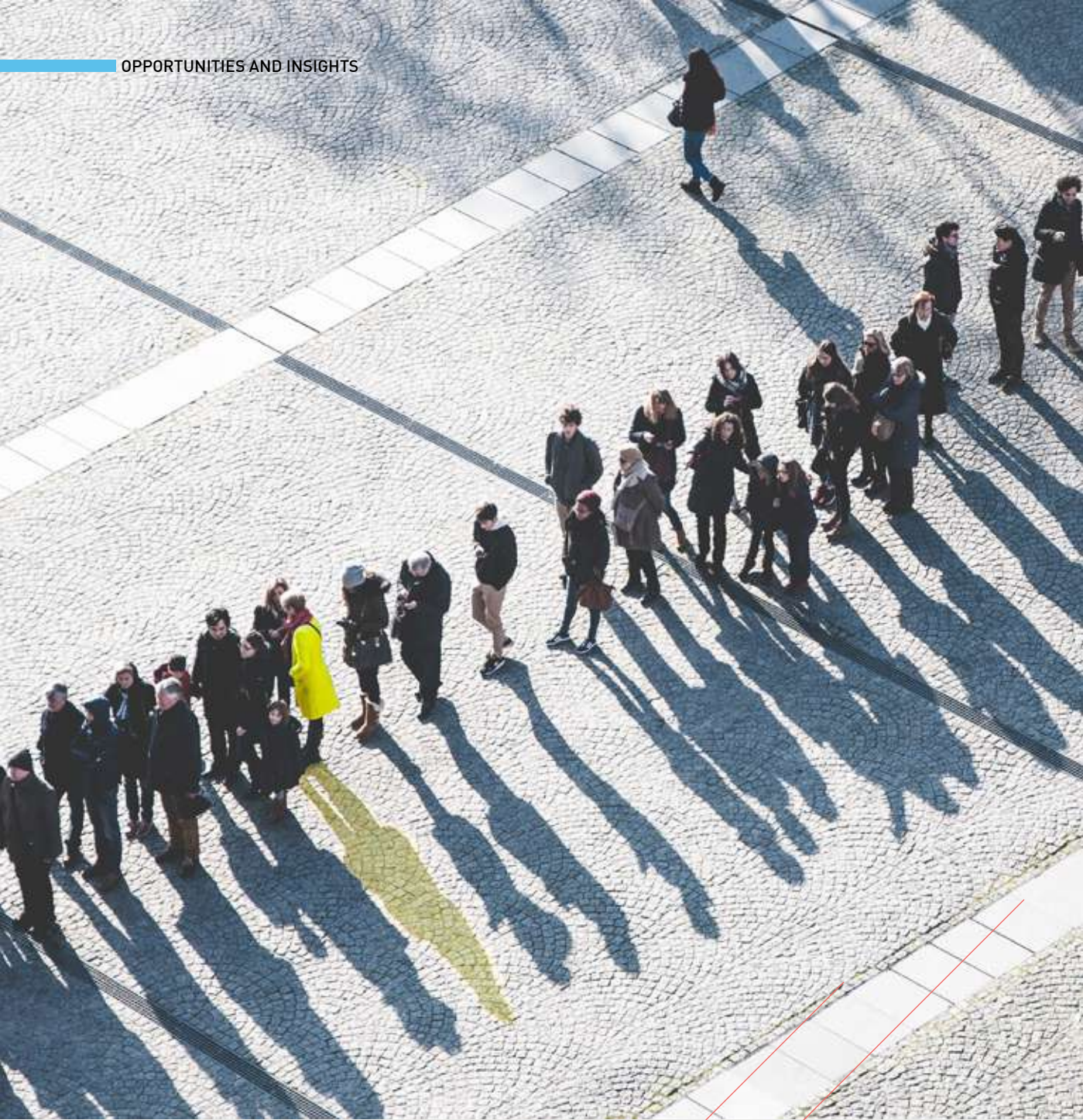
**"** For customers who are more familiar, they will tell us
everything in the first line, so we will just key them in.
For those who are unsure, then we will guide them
along the way.

INSIGHT 14
# THE RIGHT AMOUNT OF CUSTOMISATION

DIY is a new trend in which the customer chooses the ingredients. Choosing ingredients is fun and helps the customer know what is in their food. However, when consumers are not familiarised with the ingredients or the preparation process, the experience can be difficult and frustrating.

The secret ingredient is finding the right balance between customisation and a delightful food experience. How would technology help customers customise their food? What element of the food preparation process can be customised without affecting productivity?

> I feel that the experience is more enjoyable if I choose, but too much customisation can be boring sometimes.
> – The Healthy Eater

> Some concepts can't really be DIY, and there's a reason for that; customers lack skills.
> – The Operations Manager

INSIGHT 15
# ENJOYING THE WAITING TIMES

Long queues and slow ordering processes are critical aspects of the customer journey and have an impact on the overall user experience. Providing some explanations during these situations can alleviate customers' anxiety and increase their understanding of their food preparation.

Queues are discomforting for customers, but on the other hand, they are a good signal of the most valued outlets and help undecided customers.

> Queues mean business. It's important to clear the queue, but not too fast.
> – The Food Innovator

> Explaining the reasons why a customer is waiting is important to end anxiety.
> – The Operations Manager

INSIGHT 16
# HUMANS VS MACHINES

Using machines to automate processes can boost productivity and reduce costs. However, customers still expect a human touch. Customer service is very important to build brand loyalty in a country with such a variety of cultures and expectations as Singapore. On the other hand, machines are better at delivering more consistent food and drinks than humans.

> Humans need human touch. Robots would be good to a certain extent.
> – The Healthy Eater

> Machines deliver more consistent food. As long as ingredients don't change.
> – The Student / Part-Timer

" The standard is there, the important thing, the key, is the customer service. Customer service, the main reason why the customer is coming back.

**INSIGHT 17**

# ENTICING ATMOSPHERES

When customers choose to go to a certain place, they are conditioned by its cleanliness and ambience, which basically portrays the atmosphere you are about to walk into.

Chances of returning are also conditioned by the experience derived from a satisfactory or failed immersion. Furniture, music and lighting help create the ambience, while a tidy and clean space influences customer's ideas of the overall safeness derived from eating there. As usual, first impressions are quite defining. Promotional pictures are a widely used resource to preview these two elements before making a choice.

What makes an ambience unique? What touchpoints in your outlets are not aligned with your intended customer experience? In which ways can you communicate or advertise your atmosphere?

> " My ideal ambience is a chilled, comfortable place with some music and the proper lighting.
> – The Healthy Eater

> " Pictures help me decide when there's more than one option.
> – The Healthy Eater

**INSIGHT 18**

# FRONTLINE ENGAGEMENT

The multicultural dimension of Singapore's F&B industry affects services, as employees and customers come from different working backgrounds, and thus the human behaviour towards services varies.

Different cultures approach service in diverse ways, and some frictions may arise from non-concurring expectations. Leaning towards a culture of effort and attention to detail in the delivery of services by happy and highly motivated employees are regarded as the best way to go. Japan serves as the regional role model in that field.

How might we keep our staff highly motivated? How can you transform cultural differences into positive service traits? How would you make a customer say "you made my day"?

> " If motivation is spread from the boss to the front line, customers will engage with the sentiment and share it.
> – The Food Innovator

> " Watching employees enjoy their job adds value to the business.
> – The Student / Part-Timer

OPPORTUNITY

# CREATE A CULTURE FOR TALENT RETENTION

A common issue, endogenous to Singapore, is organisational culture and manpower constraint. Lack of manpower is the main complaint, but creating a strong culture that both employees and customers embrace is key for sustainability and scaling up. Training employees and then to lose them is costly, so talent retention becomes key to keep customers delighted.

## INSIGHT 19
# AN ATTRACTIVE WORKPLACE

Working in the F&B industry is tough and not well paid. Employers struggle to attract Singaporeans. As a growing industry, new factors such as the coolness of the workplace start gaining relevance as employees have more choice. Everything, from the place itself to the uniqueness of the restaurant, adds up to the appeal of the position.

How would your workplace become more attractive, cool and sexy for Singaporeans? How would you design a better career path for your employees? How would you create a stronger sense of belonging for your staff?

" When I hire new employees, I look for candidates who like people and care about, rather than experience.
– The Operations Manager

" Singaporeans are very demanding when it comes to their working conditions. Foreigners are more easygoing.
– The Operations Manager

## INSIGHT 20
# THE RIGHT MANAGEMENT TEAM

F&B businesses are hard to manage. The failure rate in the industry is very high and only a committed and highly prepared management team can lead the company to success. Enthusiasm and creativity are as important as vocation for the industry.

How would a training programme for your management team boost creativity? How would you improve your organisation culture to attract highly qualified managers?

" Restaurants are very difficult to manage. Bureaucracy, business costs and tight competition are everyday stressers.
– The Operations Manager

" Preparation is needed to manage F&B businesses, not just enthusiasm and creativity.
– The Operations Manager

## INSIGHT 21
# BUILDING A WORKING CULTURE

Staff want more time to spend with their families, their friends, and on leisure activities. Their job is no longer their top priority anymore, and they tend to pursue a successful balance between both aspects of life. When it fails, frustration and demotivation may appear leading to a poor working performance.

" A relaxed working atmosphere helps bring people together and making them happier.
–The Operations Manager

" Staff are increasingly valuing spending more time with family.
– The Operations Manager

**OPPORTUNITY**

# LEAD
# BUSINESS INNOVATION
# AND GROWTH

Concerns related to expanding both locally and internationally are shared among most F&B businesses. Keeping in mind their vision and aspirations, businesses seek innovative processes, resources and tools needed to replicate their ideas and keep those ideas updated over time to face market changes and fluctuations in taste or trends.

**INSIGHT 22**

# STAYING AHEAD OF TRENDS

Anticipating change and being one step ahead of upcoming trends is crucial for a F&B business. Likewise, businesses that can adapt themselves to fast changing scenarios have a huge competitive advantage.

However, following blindly might be perceived by customers as a lack of character. Trends are short-lived and are determined by their consumers. Trending, as a phenomenon, is driven by fleetingness and volatility. In Asia, Japan and Korea are still the Asian trendsetters.

What processes do you need to put in place to make sure you do not miss a new trend? How would you develop a culture to boost innovation among your employees? What processes would help you to adapt and settle down international food trends? How might you use technology to adapt to trends quicker?

> " Staying up to date on trends in the F&B industry is basic if you want to be in the game.
> – The Kitchen Manager

> " Being ahead of trends is good. Following blindly is not.
> – The Student / Part-Timer

**INSIGHT 23**

# RELYING ON DIGITAL FOOD EXPERTS

The Internet is a powerful tool to create and share information. Customers rely on online reviews and bloggers for their decisions on what to order, where to eat or have a coffee.

New generations look for information such as unique food offers, international products or ambience. They use well established F&B portals and websites and still consume a lot of this information through traditional media such as magazines and television.

What partnerships could you build on to improve your online presence and trust? How would you boost loyalty in your online community? How would you attract more media attention?

> " Before trying new places I check out blogs in the Internet for the best ambience or the most interesting menus.
> – The Healthy Eater

> " TV and magazines influence younger generations on trying new and specific things.
> – The Operations Manager

" We stay on the other side. We think out of the box so
we can grow more, we will survive.

**INSIGHT 24**

# PIONEERS & PURITANS

Different generations show different reactions in the face of newness. There is a generational gap in the way people approach new food concepts and formats. While older generations are more comfortable with traditional food, younger generations want adventure and novelty.

Information usually leads to openness for trying new things, but not always. If the new is not comprehensible, people will stick to the traditional. Consumers who are open usually find novelty as a determinant when choosing new places to eat. Witnessing the cooking process helps customers gain trust and have a better understanding of the way their food and drinks are being handled. Customers find this a powerful and engaging tool; a form of art, where the skills of the chef are very valued.

How would you change your food offer to cater to all different generations?

> " If the "new" is not comprehensible, older generations will stick to traditional.
> – The Operations Manager

> " Catering local-like flavours in newer formats is a way of satisfying all generations.
> – The Operations Manager

**INSIGHT 25**

# A FITTER SINGAPORE

Singapore's fast food scene is becoming healthier as people raise awareness of unhealthy food. Being healthy is hard because customers feel like they do not have complete control over their food when they eat out. This is usually combined with a sentiment of distrust regarding business claims of their own food's healthiness.

However, consumers are starting to appreciate changes in the overall industry landscape, as more efforts are made to cater to more discerning individuals. Companies are encouraged to fine-tune their products and business models. More discerning customers are encouraging fine-tuned products and business models.

How can you make it easier for your customers to eat healthier? How can we leverage on this mindset?

> " Eating healthy is hard, because I don't fully control my food and what's in it.
> – The Student / Part-Timer

> " Healthy eating awareness benefits society as a whole in the long-run.
> – The Operations Manager

**CONCEPT 01**

# HYPER ENGAGEMENT

**REAL-TIME, ACTIONABLE CUSTOMER INSIGHTS.**

Identifying customers on-site allows businesses to create hyper-customised offers in real time to specific individuals, engaging around their likes. Increased convenience helps maximise loyalty, return valuable data showing customers' segmentation, behaviour and reactions.

This concept explores the idea of increasing customers' engagement by directing companies' marketing efforts towards hyper-customisation and real time offer generation. Agile marketing actions mean better timing and more cohesive combinations, making for higher chances of success and an enhanced perception of the service.

The proposed system would have super-customers, those often using the companies' services, register in order to track their choices and preferences for a varied range of reasons. The resulting data would allow the company to segment customers and target them, making it easier to cater directly to them in the most effective way. Users could be shown special offers just aimed at them through a simple rule engine linking actions to reactions. Subscriptions would be enabled, making it easier for these super-customers to plan their meals in advance, paying in advance and keeping track of the dates.

Geolocation could identify registered users on their arrival to an outlet, displaying personalised greeting messages and offers. Real time analysis could adjust the offers shown so as to better fit the customer's needs and likes, effectively engaging them by taking their uniqueness into account.

Smartphones allow for instant user identification.

A fixed device processes the information and creates the personalised messages to be displayed for the customer to see.

## BUSINESS OPPORTUNITIES

It helps businesses to collect valuable information about consumer taste, behaviour and the way choices are made. Although data collection is grouped by the consumer, each individual's identity remains anonymous. Data is correlated to products and items on the menu, helping companies to maximise their inventory while minimising turnover ratios, thus helping to reduce food waste.

Businesses can make informed decisions, backed by their own data, on deals, coupons, offers or any other marketing matter. Actions can be automated to target individuals with hyper-personalised messages that relate to their behaviour, needs and tastes, integrating with existing systems like email marketing, digital signage or POS systems.

## NEEDS SATISFIED

Customers enjoy better recommendations based on their taste and behaviour, as well as relevant offers and discounts for their loved items, increasing their level of engagement and loyalty.

Employees foresee customer offers and preferences directly at the counter, enabling them to up-sell and cross-sell items at the right moment of truth.

## TRENDS & INSIGHTS

This scenario is based on trends and insights exploring the increasing weight of individuality and consumers' need for self-expression when being served, combined with those dealing with frontline engagement, where decisions take place.

# HYPER ENGAGEMENT
**REAL-TIME, ACTIONABLE CUSTOMER INSIGHTS**
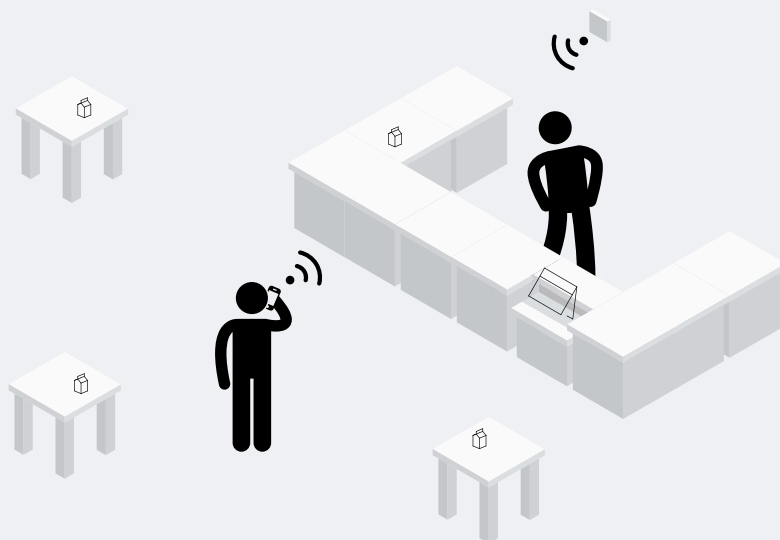


## IDENTIFYING CUSTOMERS

There are multiple ways of identifying returning customers, such as their geolocation, their device ID or Near-Field Communication (NFC) technology. They can also be identified if they have created online profiles with the company. Automated offers and actions come as a result of simple sets of rules. If something is true, there will be a reaction to it.
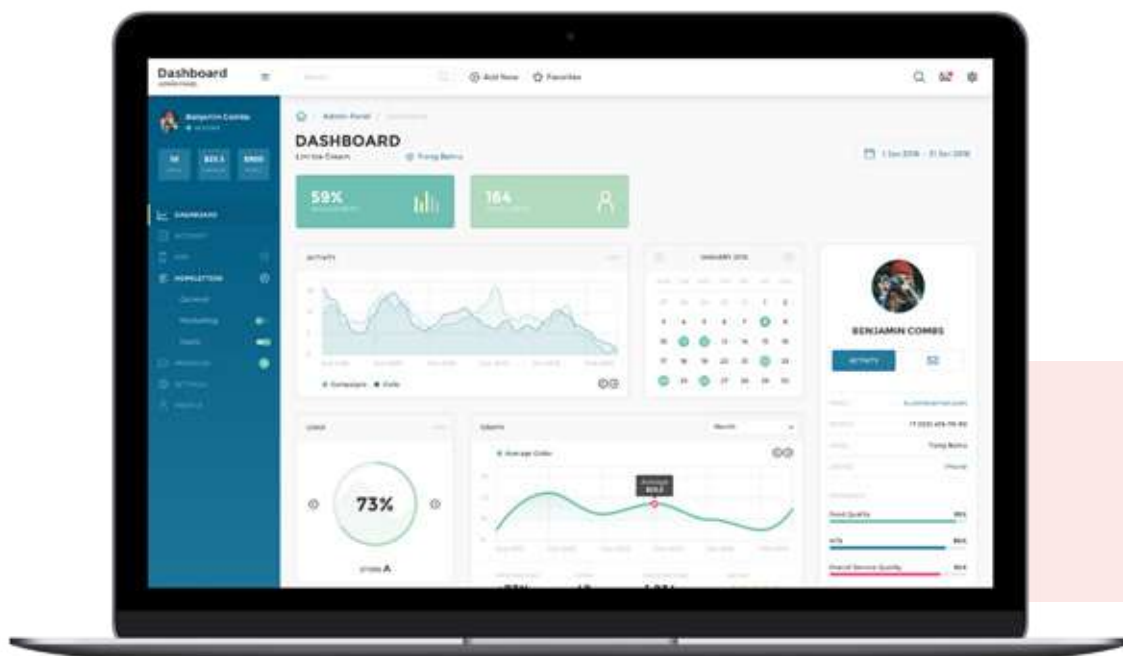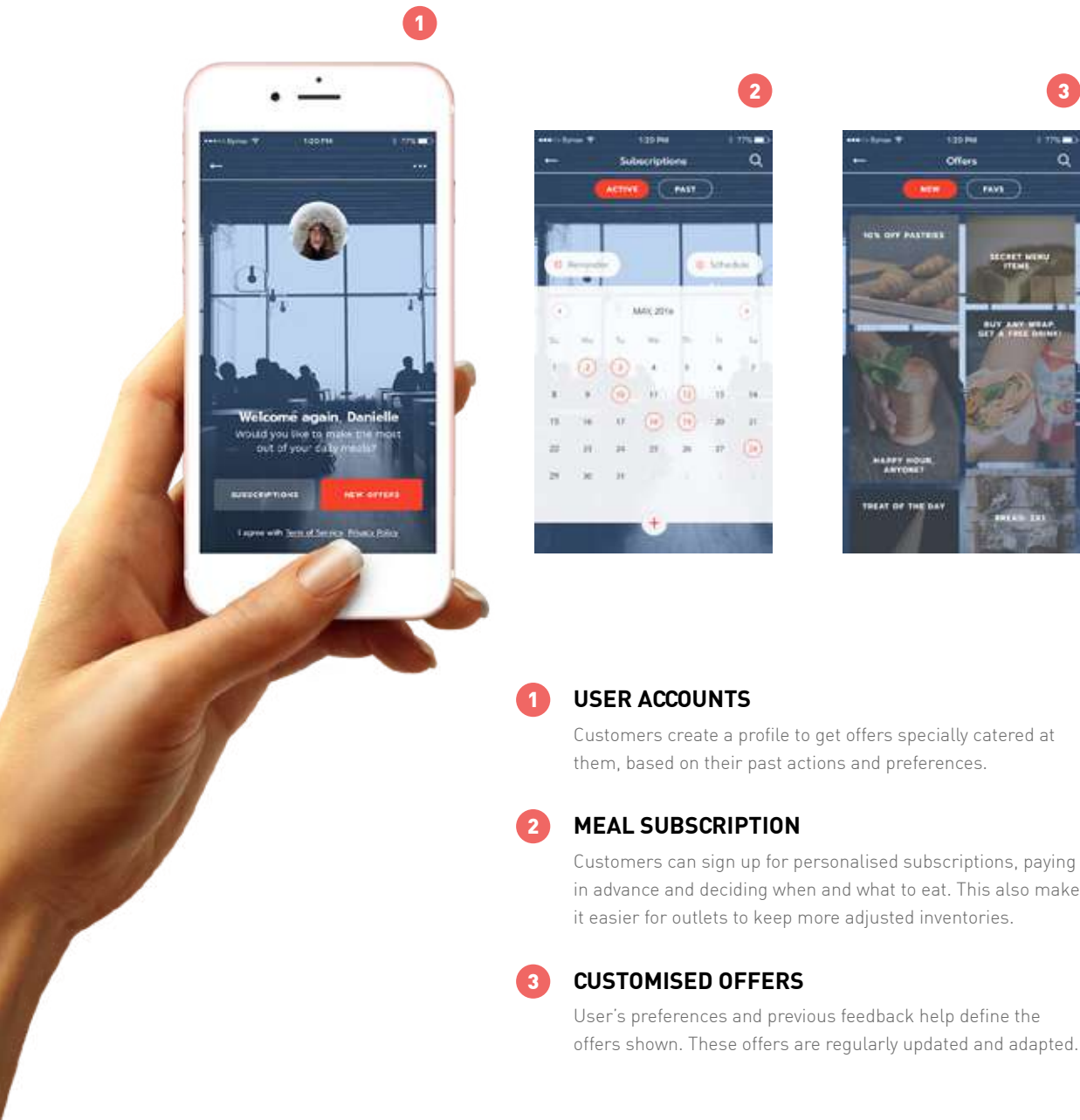
### 1 USER ACCOUNTS

Customers create a profile to get offers specially catered at them, based on their past actions and preferences.

### 2 MEAL SUBSCRIPTION

Customers can sign up for personalised subscriptions, paying in advance and deciding when and what to eat. This also makes it easier for outlets to keep more adjusted inventories.

### 3 CUSTOMISED OFFERS

User's preferences and previous feedback help define the offers shown. These offers are regularly updated and adapted.

### INTERPRETING DATA

From the Admin Dashboard, managers can track, target and segment customers in order to create offers that best suit each of them. Collected data is gathered and synthesised here for decision-makers to see.

**CONCEPT 02**

# CAPTURE THE BADGE

**BUILDING BETTER TEAMS THROUGH GAMIFICATION**

Engaging employees into building better functioning teams can be achieved through gamification at the workplace. By setting outlet or business goals, managers can ignite competitive attitudes as a team rather than using an individual approach.

As a way to engage employees and build better teams, employees will compete in collaboration with their co-workers against teams made up of employees from other stores of the same company. Stores are the unit of performance because they affect how teams work together, rather than individual employee's performances or goals.

Performance KPIs are defined by management on a per company basis. Managers will set multiple metrics and goals that they want their teams to focus on. It could be related to revenue, a lower percentage of customer complaints, or a lower percentage of errors.

Teams access the goals and objectives using an app dashboard that displays each of them as a badge. Once a team has successfully achieved that goal they will win a badge associated with that feat. After securing that badge, it is up for the other team to try and "capture it" by surpassing the other team.

Badges could be associated to prizes, defined by the business owner, such as more vacation days or a monetary bonus. Prizes could be allocated for complete teams or even for individuals. Having individual members contributing to the overall success of each team will increase their cohesion and preparedness to react as a whole and also ensure no team member is left behind.
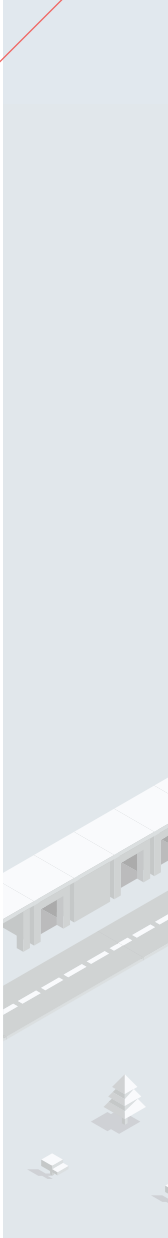
competing outlets within
the same company

team A

team B
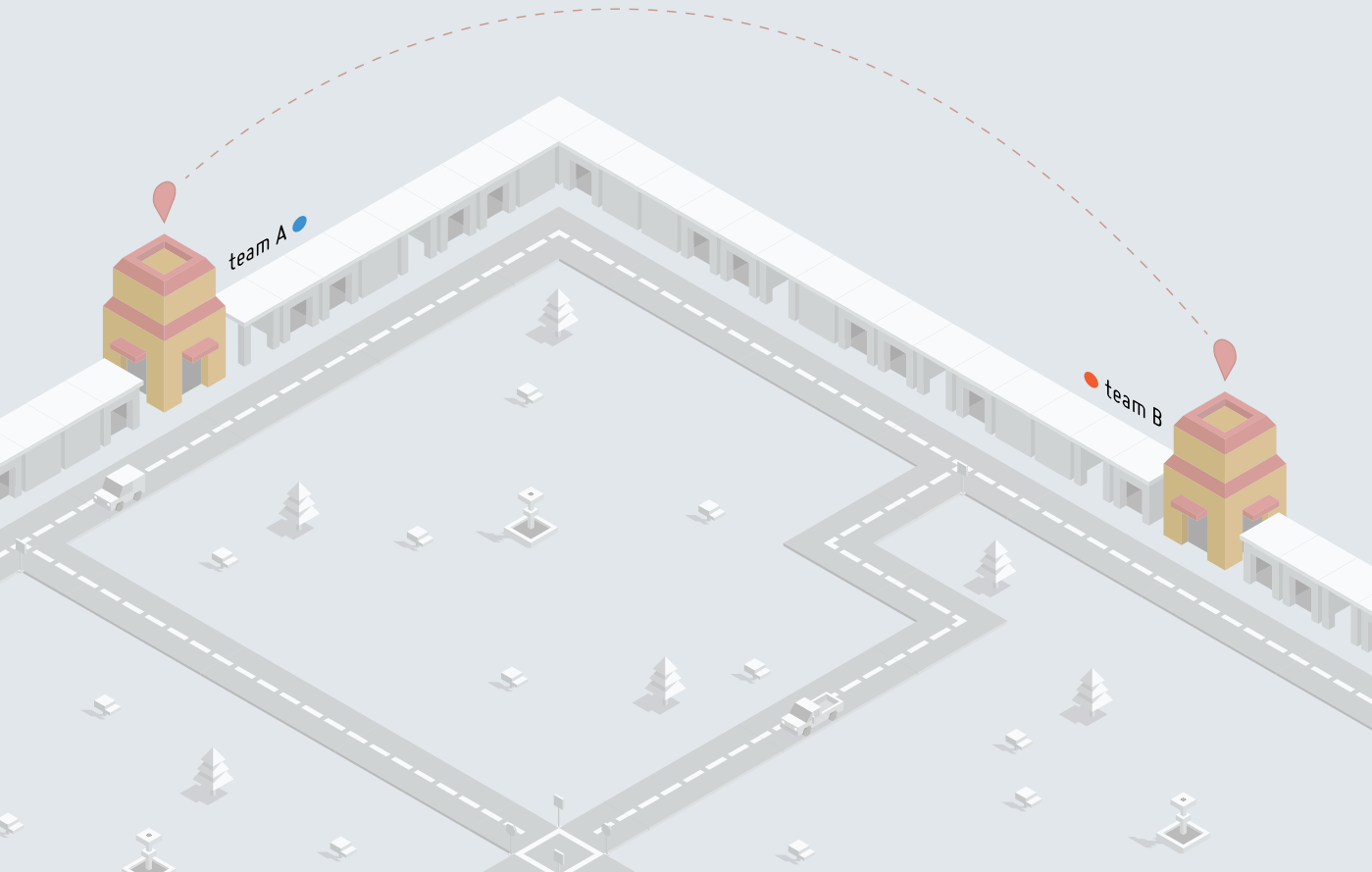
## BUSINESS OPPORTUNITIES

Through an increasingly motivated workforce, businesses get to optimise productivity, reducing time and money loss. In doing so, they are capable of setting new, industry-wide standards that position them as leaders.

This builds a motivated workforce that retains its members. Through their own involvement, it enables growth and improvement to be a steady facilitation of continuity and goal achievement.

This scenario helps businesses delight clients through the delivery of an enhanced service. Each and every aspect of service is approached with metrics in order to set perceptible and attainable goals that will make a real difference to customers.

## NEEDS SATISFIED

Employees benefit from a clear understanding of what is expected of them, while getting an overall view of the service. This helps bring together a more skilled workforce, developing individuals' capabilities.
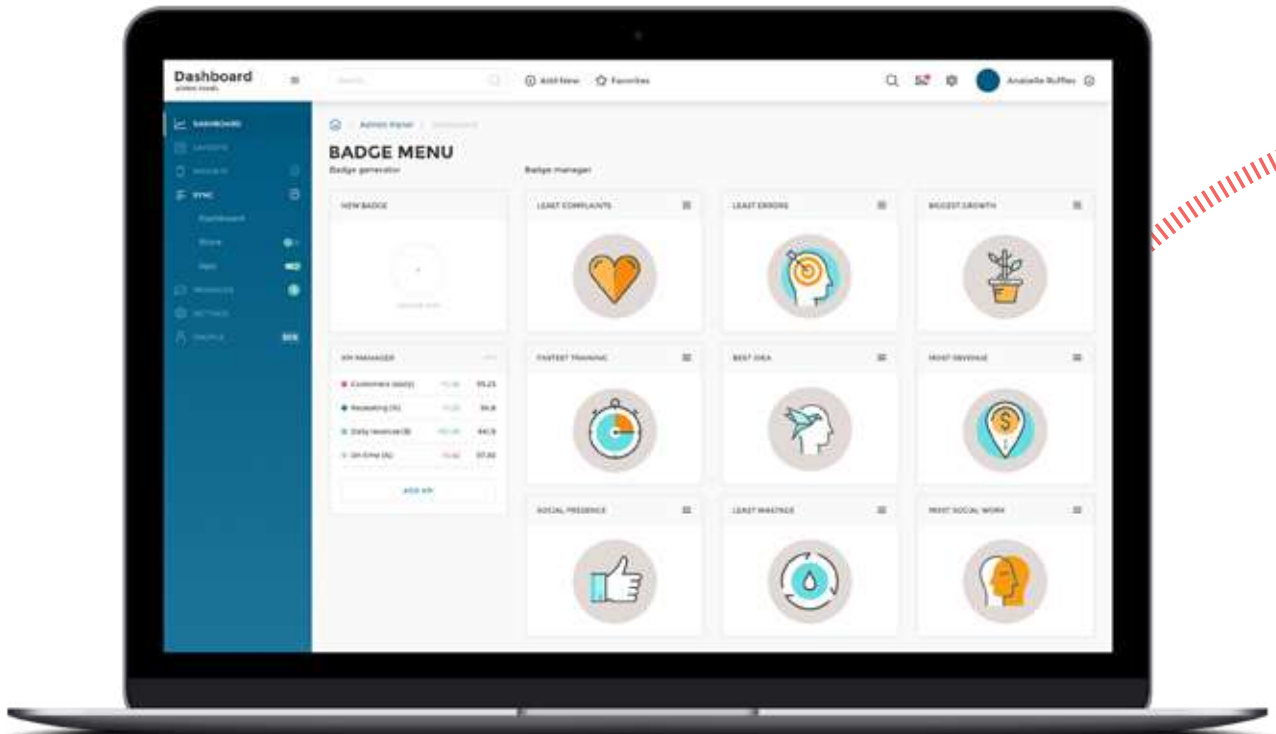
Customers enjoy higher quality services, noticing gradual improvements as the newly set standards are tweaked.

## TRENDS & INSIGHTS

This concept is derived from insights and trends covering the building of a successful working culture and the management and retention of employees.

# CAPTURE THE BADGE
## BUILDING BETTER TEAMS THROUGH GAMIFICATION



## REAL-TIME DATA AND BADGE CREATION

Management can update and create new badges basing the objectives on custom KPIs measuring progress. Management can also track progress in real time and filter information as required to evaluate different performance aspects.

## PERFORMANCE TRACKING

Teams know where they stand regarding the capture of a particular badge. Their competing teams' progress is compared to theirs. Individual contribution to overall team success is measured by peer-evaluation to instill and develop better teams.

## PERFORMANCE BADGES

Identifiable badges that employees can see displayed in various devices at the workplace, showcasing their success or points of improvement.

CONCEPT 03

# STREAMLINED FAST FOOD

**GENERATING EASIER, FLEXIBLE CUSTOMISATION ORDERING SYSTEMS**

Ordering processes are generally confusing, obstructing the way for a seamless relationship with customers. Engaging them through step-by-step customisation, with real-time options from staff coming up as the order is built, alleviates anxiety and helps optimise any order.

In most quick service restaurants, customers' orders are taken in outdated, confusing, and boring ways. Existing methods lack error prevention, consistency, and up-selling and cross-selling opportunities, leaving every decision at the discretion of current staff. A way to solve this is digital guidance that walks the staff through ordering and preparation to streamline ordering process when in front of the customer. The guidance system will help staff understand what kinds of options and customisations they can make along the way and up-sell them in the proper preparation stage. This approach encourages customer-employee engagement.

By making a digital guidance solution there will be more data available to business owners on how customers are ordering or customising their food, which after analysis will produce better menus, better cross-selling opportunities and better recommendations. For example, should customers always order a certain sandwich with a certain drink, a combo could be created to optimise preparation and improve serving time.

Inputting orders digitally could also potentially connect with serving dishes/ serving tongs/ serving spoons, which could light up and change colours based on near field devices from an employee bracelet, reducing employee errors by telling specific ingredients to be used; but it can also connect with customer-facing screens where customers can interact with the process or waiting times.

① Basic Ingredients  →  ② Up-selling & Cross-selling  →  ③ Customer Checkout

## BUSINESS OPPORTUNITIES

Businesses set up simpler, guided steps in their order customisation processes, making it easier for new staff to adapt to the work flow, resulting in a lesser dependence of skilled employees. And, due to minimised mistakes and the optimisation of inventories, businesses also get to reduce time and money loss, boosting productivity

Employees can focus on better services, delighting customers and facilitating their decision making.

Data extracted from those decisions is used to make the most out of every order by making relevant recommendations, appealing directly to each individual, and to set up new combos or offers according to their foreseen acceptance.

## NEEDS SATISFIED

Customer anxiety is alleviated at the ordering steps, where many of them suffer from choice paralysis and customisation uncertainty.

Employees are always guided through the process, helping them feel comfortable and confident in their position. Their mistake ratio is greatly reduced, and possible derived frustrations are avoided.

## TRENDS & INSIGHTS

This scenario is inspired by insights and trends talking about both the surging of hyper-customised services as a common requirement from customers and the rising value the cooking processes add to the overall experience.

# STREAMLINED FAST FOOD
## GENERATING EASIER, FLEXIBLE CUSTOMISATION ORDERING SYSTEMS



**1** **NEW ORDER**

When ordering, there are two ways to go about it. Customers can opt for a Chef-designed menu item or they can customise their own.



**2** **PREPARATION STARTS**

As the customer chooses base ingredients for his dish, up-selling options appear on the POS screen to let employees know what they should suggest. The system also aids staff in accurately constructing the dish.
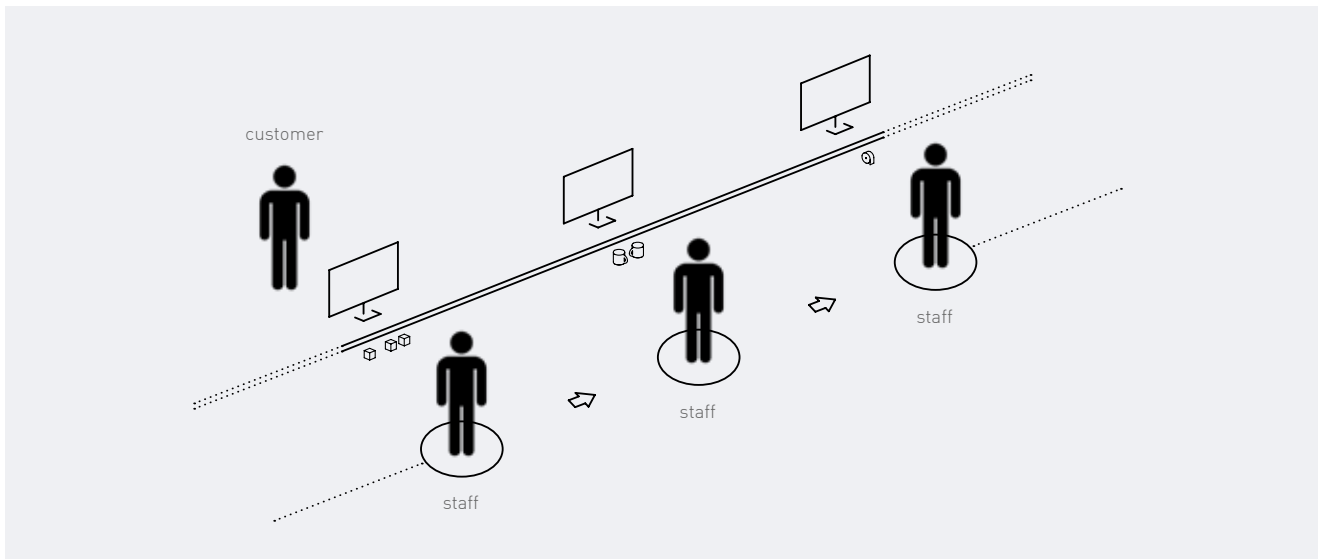
**4** **A CONTINUOUS FLOW**

The ordering process goes through various steps in a continuous flow that lets employees take different actions depending on the customers' previous choices. Different stages are defined depending on business requirements and can be executed by a single person or multiple individuals, depending on the setup. Food can be customised in clear steps. Seeing the options help customers get a clear understanding of the outcomes and eliminates staff anxiety coming from mental dish construction.

As staff are specifically instructed what to do in a stage or station, processes are simplified and training issues are alleviated.



**3** **CROSS-SELLING**

As the order for the customised item is taken, different cross-selling options (e.g. drinks, desserts) are also suggested.

CONCEPT 04

# SOCIAL MEDIA CONTENT BOT

**AUTOMATING REAL-TIME SOCIAL MEDIA CONTENT IN F&B BUSINESSES**

Managing social media content creation can be sometimes tough and time-consuming. A network of sensors spread around an outlet and social media bots can be used to gather and release relevant bits of information, automating the process in real time.

Small F&B companies have a tough time engaging with existing and potential customers and processing feedback. With the existing widespread social networks, it is more complex for them to create relevant and unique content. What might seem as a minor issue, is in reality a huge problem, because nowadays most customers find new restaurants and food through online social media platforms. Content about food is easily shared and is a big factor in attracting new customers to the store.

This concept helps business owners and managers to automate the process of sharing relevant content and marketing to customers by deeply integrating it into their existing staff processes and tasks. The system is automated by using a network of software bots, specialised in different social networks like Facebook, Twitter or Instagram, to produce relevant content targeted to customers; these bots are triggered by small sensors or activators placed all over the stores, like fixed cameras properly located over the counter automatically taking pictures of best selling items when the cashier registers a sale; or sensors located in the ovens could trigger a message, so customers know when to head to the stores and get bread as freshly baked as possible. It is a sort of very specific Internet of Things network with ready-to-plug modules. Increasing content and making it real, relevant and direct creates a sense of freshness that would attract customers into visiting the store more often and creating better marketing opportunities.
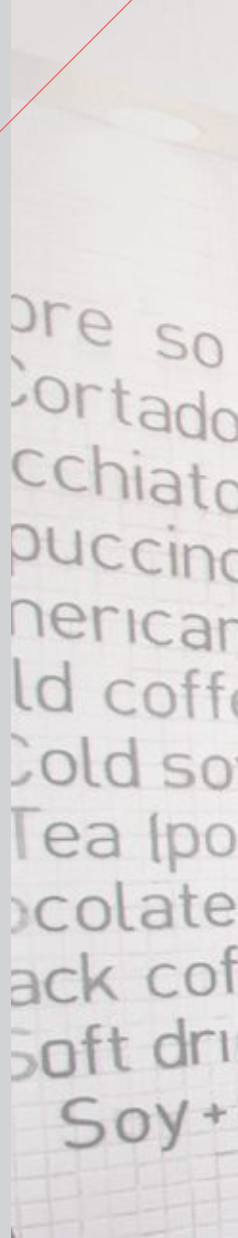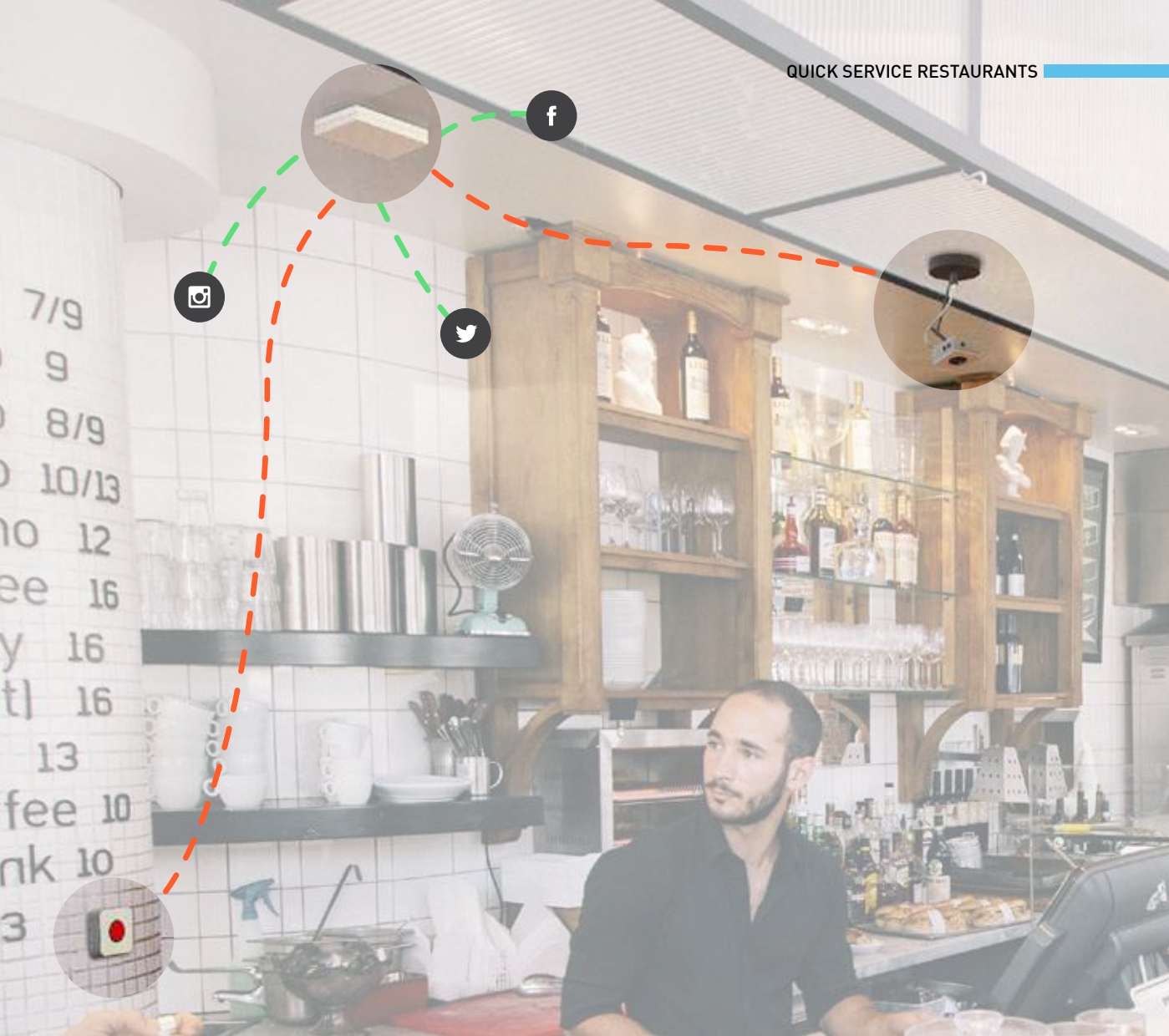
## BUSINESS OPPORTUNITIES

Generating relevant digital content in an effortless, regular, resource-saving way not only helps maintain a solid presence in social media, but also gain a place in the customers' mind and conversations.

Being perceived online as a positive topic proves vital. Transparency about ingredients and processes makes consumers more trusting. Trust leads to advocacy, and advocates act as messengers, spreading the company's word around. As the messages gain prevalence, visibility is enhanced. This boosts customers' knowledge and remembrance of the brand and more importantly, it becomes their go-to brand.

## NEEDS SATISFIED

Customers benefit from their extended knowledge about companies' activities and processes, being able to remain informed and finding it easier to trust them.

Managers and employees, on the other hand, are able to focus on service and their duties without having to take care of social media communications

## TRENDS & INSIGHTS

Trends and insights exploring the importance of food aesthetics and the conversations around food in the digital realm were used when creating this scenario.

# SOCIAL MEDIA CONTENT BOT
## AUTOMATING REAL-TIME SOCIAL MEDIA CONTENT IN F&B BUSINESSES



Camera
(above countertop)

Oven
Sensor

CPU

Trigger
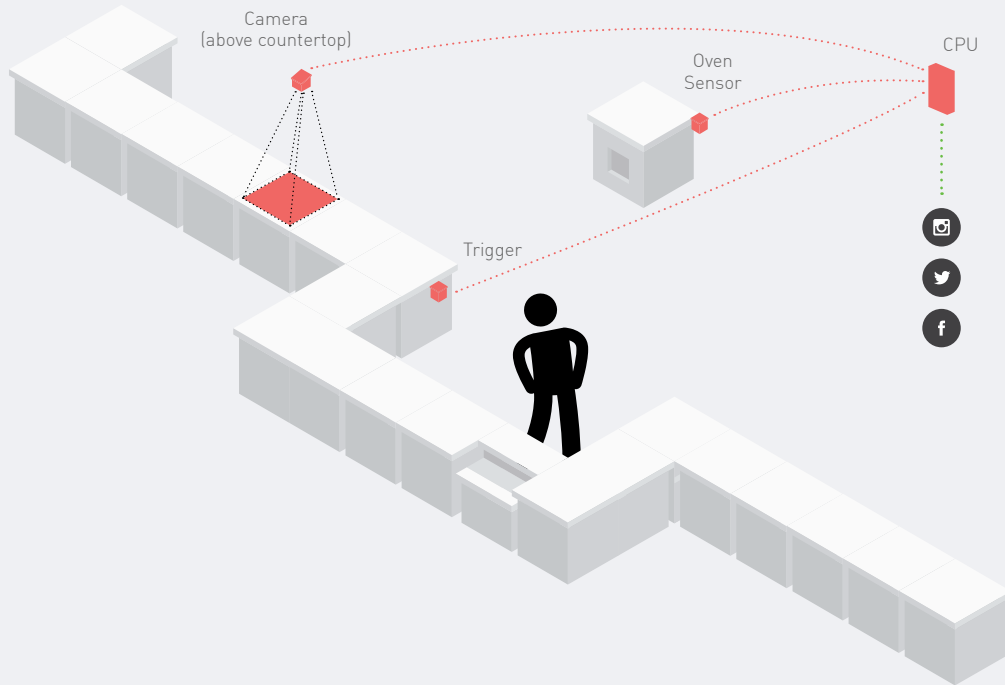
### EASY SOCIAL NETWORKING

Food businesses find it hard to cope with social media because it requires time that they lack. When something interesting happens at any store, it tends to be late to post or prepare anything to share on social networks. Integrating social actions into the workflow might be the solution, but it implies training staff to observe what is happening and perform the new task of content creation.

Easy social networking can be leveraged by technology bots. Small pieces of software that monitor elements relevant to your business, based on triggers and sensors, to identify when it is interesting to post or share in a social network. They can be created to monitor the oven, identifying when a new bread is ready; or to monitor the cashier, taking pictures of just served food by identifying the payment milestones; or detect a queue at the outlet by counting people in the store; and in all those cases, prepare a post to share in one or multiple social networks, just in real time, with real content and relevant to the actual happenings at the store. It is easy social media management for busy business owners.

## READY TO USE MODULES

A connected facility, with sensors and cameras installed in key points, communicating to clients in a semi-autonomous way, can help deliver a regular flux of content online. The network of sensors, cameras and actionable devices cover both the front and the back of the business, ensuring a global and continuous tracing of its actions. Sensors and triggers are made-up modules, ready to be used directly by SMEs, connecting to a central module orchestrating everything.

**1** One of the content generating modules is a camera set to detect and take snaps of diverse events happening around the store (e.g., fresh veggies are being cut)

**3** Functioning as the core of the network, a small-sized CPU is in charge of processing retrieved data, and generating and uploading content.

**2** Another module is a trigger button, actioned by employees as certain milestones are reached (e.g., certain number of units have been sold).

## AUTOMATIC SOCIAL MEDIA PUBLICATIONS

When sensors are triggered and the data is collected by the central unit, bots generate and upload relevant content specifically adapted to different social media platforms.

CONCEPT 05

# SINGAFOOD GO

**GEOLOCATION TOOLS FOR SINGAPORE'S F&B DISCOVERY**

Amidst the technological possibilities geolocation offers, gamified discovery-making is quickly becoming one of the preferred by users. Using this to facilitate discovery within the F&B industry could be highly engaging, facilitating visibility and expansion.

While most of the conversations around Quick Service is taking place on social media, engaging individuals into taking a more active role in their consumption is still a difficult task. In this scenario, geolocation techniques are applied to generate content around the Singaporean F&B industry nationwide for individuals to discover.

This can be achieved by third parties, bundling together different companies in a single system, or by big companies with a widespread presence throughout Singapore's territory. Content could be generated by the SMEs or there could be pre-designed content, easily adjustable to each company's needs. In any case, constant content generation and updating is key to a dynamic system.

Individuals stumbling upon food related content, personalised offers and promotions, some of them limited, can feel engaged to pursue new "items" and drag their friends into the action. By turning food and beverage discoveries and user-company interactions into an enjoyable experience, users can feel sparked to keep on exploring in an active way. Blending both the real and the virtual worlds, thus having users go out on the streets to catch the latest promotion, can also increase the visibility of the communicational effort, as early adopters would lure in more hesitant ones.

An augmented F&B industry in Singapore would be beneficial for both users and companies by increasing communication and marketing efforts in an eased, fun and non-invasive way.
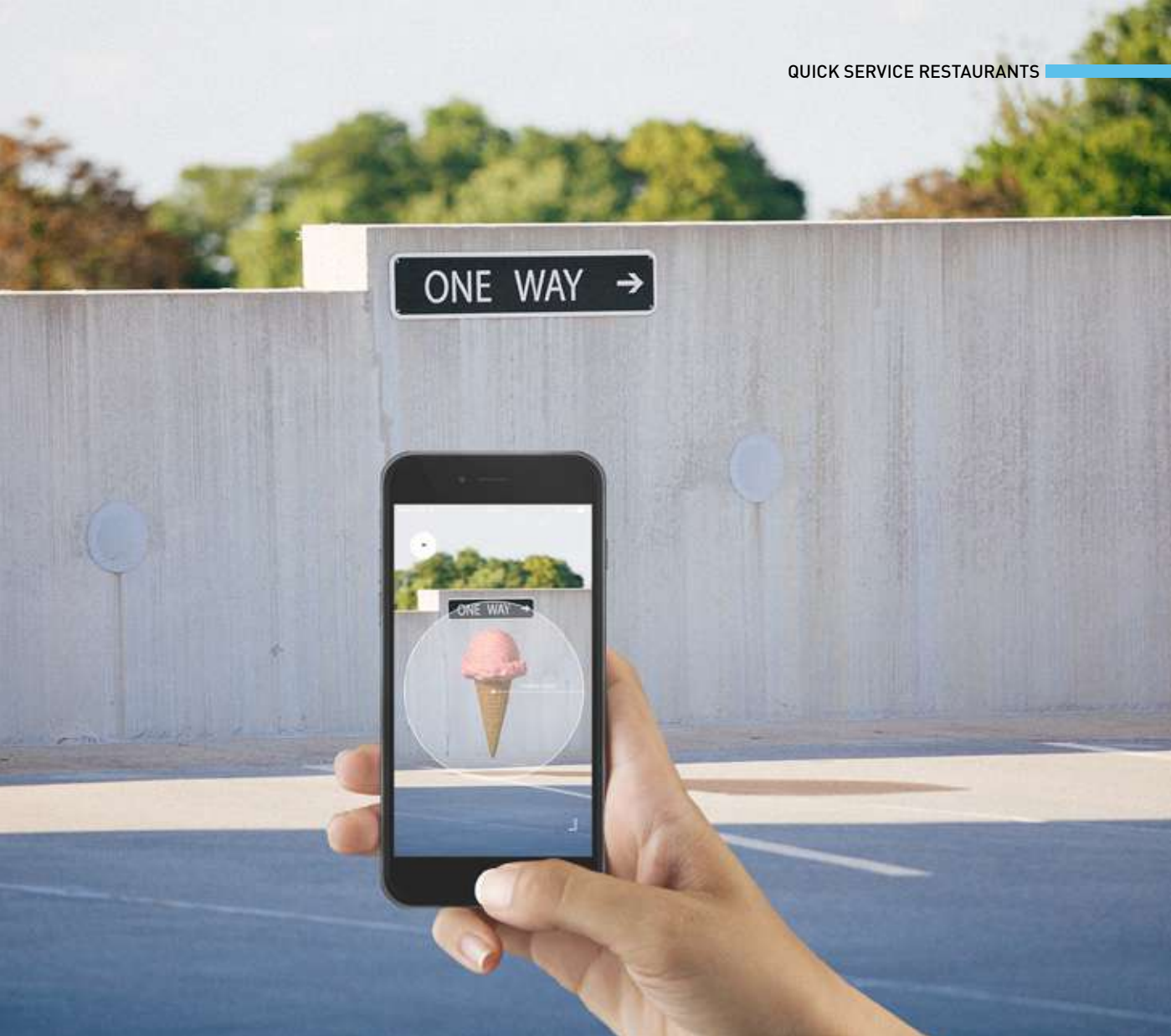
## BUSINESS OPPORTUNITIES

Individuals are more receptive to information about offers which are spread in a non-invasive or aggressive way.

Spreading of information about offers in a non-invasive or aggressive way helps individuals approach with less doubts. Early adopters can also show the way for users coming after them. Gathering a large number of users helps businesses stand out, gaining visibility.

By grouping such a wide range of food offers, businesses promote Singaporean culinary experiences to foreigners and locals alike, invigorating the nation's stand on an international level concerning food and beverages.

## NEEDS SATISFIED

Individuals are engaged to take a more active role in their consumption, offering them an inviting, fun and interactive experience around food and their own geographical stages.

Locals and foreigners alike, they all benefit from a wide range of offers and discounts to discover Singapore's food scene at participating outlets.
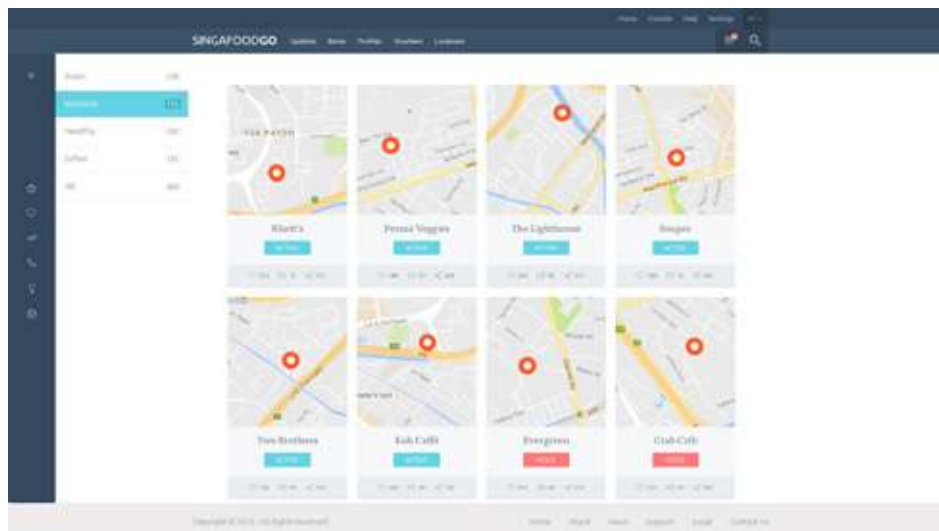
## TRENDS & INSIGHTS

This scenario is based on trends and insights covering the sociocultural aspects of food, the importance of technology when it comes to support food services, and the rising demand for customers to be considered as individuals rather than clusters.

# SINGAFOOD GO
**GEOLOCATION TOOLS FOR SINGAPORE'S F&B DISCOVERY**
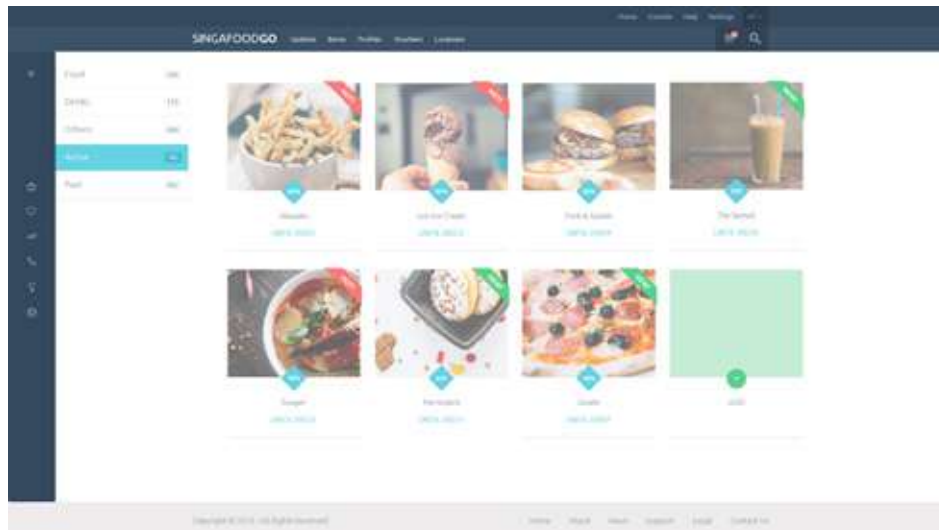




### ① MANAGING CONTENT

Managers can arrange participant businesses' profiles and products through a dashboard where offers can also be generated and updated. This can be executed by either 3rd parties or companies with a large local presence.

### ② CATCHING THE 'ITEM'

Upon finding a hotspot, augmented reality unveils a food 3D model through the user's mobile phone camera. Interacting, he has to catch it.

### ③ MAPPING HOTSPOTS

Users can see pins around their current position, signaling places where they can encounter items to catch, and items they can interact with.

## EXPLORING CITIES

Roaming around Singapore in the search for random 'items' can be a fun way to spark discovery throughout the sector. In fact, randomness can bring surprise and serendipity into the game board, treating users with a refreshing glance of the F&B scene.

**2**

**3**
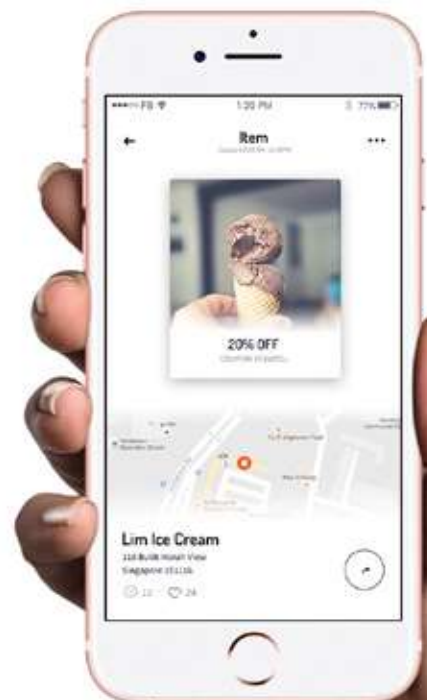
**4 ITEMS TO REWARDS**

After successfully catching an item, the user can get different attached rewards, such as coupons, limited offers or discounts.

**4**

CONCEPT 06

# FOOD MOOD

**FACILITATING MENU DISCOVERY AND DECISION MAKING IN F&B OUTLETS**

Customers often feel disoriented or suffer from choice paralysis when facing menus and having to order. Facilitating menu discovery and appealing to customers' uniqueness can be achieved by developing a fun and easy suggestion system triggered by their preferences.

This explores the concept of transforming decision-making for customers into a fun, accessible process through a suggestion-making system. Presented as an app or an in-house interactive display, the system asks customers questions about their mood and their general food preferences. Then, it narrows the menu items that best fit these choices, until a couple of them are finally presented as suggestions. This way, customers feel their uniqueness and their current mood is taken into account by the company.

Business managers can design the decision process or attributes used to filter their food menus to stir-up customer interaction. Using customer devices, or in-store tablets and big touch-screens can also lead to identifying repeating customers by either allowing them to sign up or by recognising them through facial detection, digital footprint (unique digital wavelength generated by an individual with their connected devices), even identifying their mood directly, their smile level and using some external features like weather, newspaper information or how crowded a store is to change suggestions.

Businesses with too vast menus or hard to understand items could offer customers this way of avoiding the anxiety and disorientation caused by unclear processes. The fun part of the system lays on the discovery making. An individual could go inside an outlet letting the string of questions direct him towards a surprising meal.

## BUSINESS OPPORTUNITIES

Businesses aim, with this kind of system, at developing a close relationship with customers, catering to them individually. Treating customers as something more than numbers brings them closer to the company, as they feel more valued and taken more seriously.

Data obtained by these means boosts creativity when coming up with new food-emotion associations, and helps balancing and adjusting items in the menu making process to optimise it.

At the same time, the increasing efficiency in the ordering and order delivery processes make up for less mistakes; that way, less money and resources are wasted.

## NEEDS SATISFIED

Customers benefit from a system that allows them to get menu recommendations based on their own preferences, expecting to be surprised instead of getting paralysed by confusion or ignorance. Also, advanced and remote use of the app reduce friction and waiting times. Staff makes less mistakes this way.

## TRENDS & INSIGHTS

When creating this particular scenario, trends and insights mainly reflecting on how individual preferences and choices are expressed through food choices, and how these preferences should be incorporated to food preparation, were used.

# FOOD MOOD
**FACILITATING MENU DISCOVERY AND DECISION MAKING IN F&B OUTLETS**



### FOOD-EMOTIONS PAIRING

While some of the questions talk about food features, others appeal to emotions. Establishing relations between feelings and menu items allows the system to interpret customers' moods.

### FILTERING QUESTIONS

Questions referring directly to food help reduce the possible results in order to arrive to specific suggestions. Each question narrows the selection.

### AN ADAPTIVE PROCESS

Different companies might require different approaches if their menus have specific features. The system is adaptable, and it can also be displayed by diverse devices to facilitate scaling in different outlets, depending on the companies' needs.

## NARROWING THE SELECTION

Depending on the number of options or menu items offered by a business, questions can be added to the process until there's a clear result.

## RESULTS DISPLAY

The resulting suggestion is displayed to the user as the special and unique outcome of his own choices and preferences at that moment in time.



101

# CASUAL DINING RESTAURANTS: FROM INSIGHTS TO CONCEPTS

## AUTHORED BY IDEACTIO AND IPSOS

Casual dining restaurants traditionally promise table service with moderately-priced meals, making them affordable and approachable to the masses, and is a broad term that covers establishments of different sizes and cuisines. This includes a subset of fast casual restaurants, which focus on semi-service rather than full service. This studio explores casual dining restaurants' efforts to maintain service standards even while introducing self-service methods and adapting to a fast-moving world with higher productivity.

# CASUAL DINING RESTAURANTS

PERSONAS

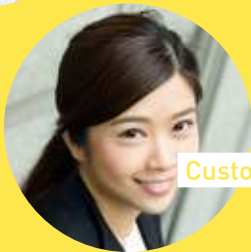OPPORTUNITIES AND INSIGHTS

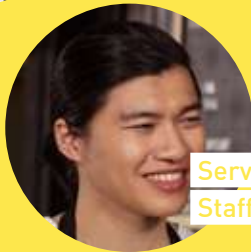CONCEPTS

Kitchen Staff

Franchisee

Restaurant Owner

Customer

Service Staff

Service Staff

Finding The Right Promise
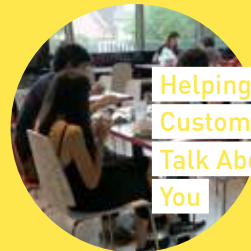
Creating The Right Concept

Delivering The Right Service

Developing Behind-The-Scenes Support Systems

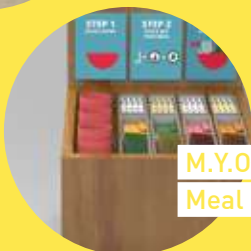Helping People Work Well Together
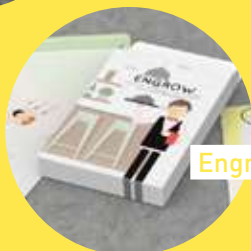
Helping Customers Talk About You

Kitchencontrol

Franchisezy

Makanboard

M.Y.O. Meal

Engrow

Tick-Talk

" During peak hours, there's more miscommunication with service staff.

PERSONA 01

# Ho Soon Liang
Kitchen Staff

Soon Liang has been working in a traditional local restaurant as a kitchen staff for the past 8 years. He is both familiar and frustrated with the restaurant operations.

**NEEDS**

To be certain of what dishes to prepare next

To coordinate kitchen team to work well together

To communicate seamlessly with front-of-house staff

To prepare dishes for customers in the most efficient way

**PAINS**

Sudden changes in orders without any notifications

Lack of instant updates from front-of-house staff

Kitchen staff miss out on dishes to prepare

Unable to receive and issue instructions easily due to noisy kitchen environment

**QUOTES**

"Another dish cancelled at the last minute without me knowing."

"How many more dishes do I have to cook?"

" I see potential in the brand but I'm not sure of the operations requirements to run it well.

**PERSONA 02**

# Lee Chin Seong

Franchisee

Chin Seong has always been looking out for opportunities to own a franchise. He recently opened a franchise of an up-and-coming brand in Singapore. He is eager for success, but is completely inexperienced in the industry.

**NEEDS**

To balance various business aspects of running a franchise outlet well

To ensure franchise outlet's success

To ensure pleasant working environment for staff

**PAINS**

Managing every single aspect of the new outlet is tiring

Uncertain if founder will provide guidance and help in managing a franchise outlet

Restricted by franchisor upon attempt to make changes in outlet

**QUOTES**

*"I didn't know that I have to handle almost everything — employees, sales, customers' satisfaction, rental..."*

*"It is so tiring to manage everything alone... And sometimes the founder is uncontactable."*

> **The more I learn, the more I realise that F&B is not a simple industry to be in.**

**PERSONA 03**

# Tan Yu Peng
Restaurant Owner

Mr Tan has always dreamt of setting up his own restaurant. While planning for his first restaurant, he started with just a cuisine-based concept. However, one year in, he has realised that there is so much more to operating a restaurant.

**NEEDS**

To learn the ropes of running a restaurant as quickly as possible

To build and expand business

To ensure customers enjoy eating and will return

**PAINS**

Unsure what customers think of the restaurant

Customers complaining on social media platforms

Uncertain about how to improve the restaurant's concept

**QUOTES**

"F&B is such a competitive industry in Singapore... How do I differentiate myself?"

"I am so busy with day-to-day operations that I have limited time to enhance the restaurant concept."

" I only have 45 minutes for my lunch!

PERSONA 04

# Michelle Lim

Customer

Michelle works in the Central Business District and usually has limited time to grab her lunch. She occasionally dines in with her colleagues, but usually chooses to take-away.

**NEEDS**

To maximise time while queuing for food

To obtain food of acceptable standards as quickly as possible

To have a good dining experience at an affordable price

**PAINS**

Time wasted due to uncertainty in using ordering system

Unsure of food selection due to extensive menu

Long waiting time

Kitchen or service staff messing up orders

**QUOTES**

*"I have so much work to do, I need to eat at somewhere convenient."*

*"I have to wait so long to order my food.. I will not come here again."*

" I did not know what to expect on the first day of work.

**PERSONA 05**

# Tay Chen Ming
Service Staff

Chen Ming recently joined a chain restaurant as a waiter. He has no prior experience in the F&B sector, but he is very willing to learn and improve himself.

**NEEDS**

To be sure of duties and responsibilities

To know what preparations to make ahead of time

To learn from experienced staff

To be well-liked by colleagues and customers

**PAINS**

Unsure of who to ask for help

Feeling lost and colleagues are too busy to help

Lack of proper and constant guidance for newcomers

**QUOTES**

*"Let me listen to my favourite songs and not think about work."*

*"I need to provide good service to my customers."*

" I hope to give my customers a pleasant experience each time they come here.

PERSONA 06

# Asyaraf Ishak
Service Staff

Asyaraf has been working in a casual dining restaurant for the past 2 years. He started off with zero experience in F&B, but he is quick in picking up and learning from other experienced staffs.

**NEEDS**

To be heard by the management

To learn and hear more stories from experienced staff

To be well-liked by my colleagues and customers

To set a good example for new staff

**PAINS**

Customers are not enjoying their dining experience at the restaurant

Uncertain about who to ask for help when situations crop up

The management always sides with the customers

**QUOTES**

*"I wonder if I offended the customer just now."*

*"I hope today will be a great day with no hiccups at work."*

**OPPORTUNITY**

# FINDING THE RIGHT PROMISE

By understanding the deeper needs of customers, restaurants can occupy a unique position in the customers' minds. Identifying the promise — why customers really choose this restaurant — is the first step that makes every other element of the restaurant fall in place.

INSIGHT 01
# MEET REAL NEEDS

In the competitive world of casual dining, restaurants which survive and prosper are those that understand their customers and meet their real needs: What experiences do your customers value? What do they wish to accomplish?

While good food may be the main attraction of a good restaurant, customers show a need to be drawn by the restaurant's deeper promise. Otherwise, the restaurant ends up unable to create differentiation or build customer loyalty and eventually lose focus on their core market — leaving customers confused and unimpressed.

How might we make customers' daily life easier, smoother and happier with what is offered in both the menu and experience? How might we help customers to accomplish lifestyle changes and create new rituals that they love?

> " I really wish that we can find a strong selling signature dish where people don't mind queuing for hours just to eat that. So that would bring us away from this headache to drive traffic to the shop.
> — Restaurant Manager

> " Our customers come to us because we are a much healthier option. But the true core that we are trying to sell is care.
> — Restaurant Manager

INSIGHT 02
# ALIGN YOUR STORY

The touchpoints of a restaurant should be designed to connect to its value proposition: What do you offer and what makes it special? How are you better than your competition? Customers need a clear top of the mind idea of the restaurant, which they form based on what they see, hear, and feel.

Each touchpoint is an opportunity to remind customers of how the restaurant is unique and meaningful for them. If the promise of the restaurant is only fulfilled in surface level touchpoints such as menu pricing and graphic design, customers are unable to feel the depth of the promise. There are missed opportunities in subtle touchpoints such as little service gestures or the restaurant's ambience.

How might we engage customers with our story through all five senses? How might we create a unique journey by identifying the touchpoints that tell our story with the biggest impact?

> " The open concept gives you the confidence that the people behind the restaurant are actually strong enough to say that: Yes, our food is fresh, and our people who are making the food have a very clear, good attitude.
> — Customer

> " When they present the menu to you, what they say, or what they don't say, that to me is very important. I think everything from the ambience to the music level, the lighting level, the air-con level, whether the staff look happy... really important.
> — Restaurant Manager
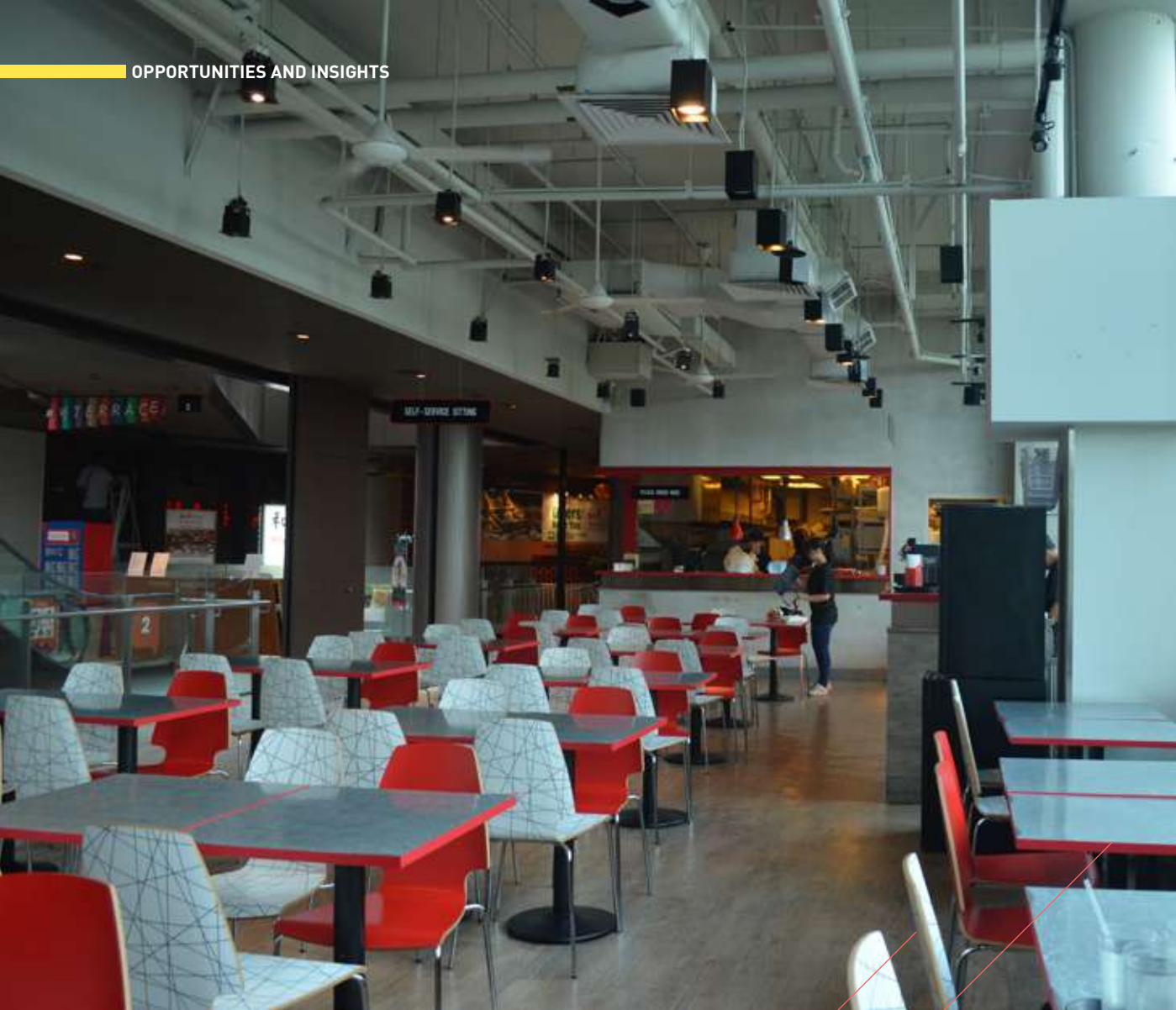
**OPPORTUNITY**

# CREATING THE RIGHT CONCEPT

At the heart of a successful restaurant is a concept that is welcoming and accessible for the customer. The concept goes beyond the type of cuisine or style of decor to define the idea behind the restaurant. Crafted correctly, a concept can help the restaurant offer more value to customers with the same resources, and make the best out of the restaurant's limited daily opening hours.

**INSIGHT 03**

# FLEXIBLE ENOUGH TO STAND THE TEST OF TIME

Casual dining restaurants, which are frequently located in shopping malls, suffer from the problem of being perceived as a single-purpose concept — in the customer's mind, the restaurant is suitable only for certain dining occasions. While a strong concept draws crowds during peak hours, it may mean that the restaurant remains empty during other day parts.

Management and staff express disappointment or frustration with these off-peak hours, where offering discounts or tea-time items have not worked well. The already-sparse group of diners, in turn, do not perceive the restaurants as a viable option for a quick coffee or afternoon tea.

Which parts of our existing offering could we easily modify to adapt to different parts of the day? How might we create spaces with different degrees of openness, ambience, and functionality? How might we identify modular elements in our concept which can be made flexible for different moods?

> " I want to get a full meal, so I come during lunch or dinner. That's my perception, because I mean as you walk past most people are consuming a big plate. I don't see a lot of people taking pastries all the time. So the perception is that they are not a drop-by place... You know, for a cup of coffee.
> — Customer

**INSIGHT 04**

# EASY TO ENTER, EASY TO SPEND MORE

Customers undergo a selection process in their mind and make certain interpretations about the restaurants they are considering. Besides the offering, the space and ambience of the restaurant affect their behaviour. For casual dining, it is important that the concept does not intimidate customers or look overly exclusive or expensive.

There are many small barriers which may prevent the customer from entering: Does it look like they are obligated to make a pricey purchase? Does it look expensive or exclusive? Does it look private or cosy enough?

How might we make our space more welcoming (through both space and service) and remove the obstacles that prevent customers from entering? How might we optimise the time and money that customers spend at the restaurant?

> " [The restaurant is] very free and easy. Sometimes you go to places that are a little more high-class, they feel a little too serious. You don't get that here. It's very convenient and easy.
> — Customer

"
I remember the first time coming over here, you can be confused by the menu, because there's a custom à la carte kind of style, or you can actually order from the menu. So there was some slight explanation required. — Customer

**INSIGHT 05**
# GUIDING
# THE CUSTOMER

Customers need to be guided to make decisions easily through design. Restaurants may introduce extensive menus to create interest and variety, but the amount of options overwhelms the customer and creates chokepoints. Customers can be guided with streamlined menus, with items promoted as specials or discounted, or even highlighted through storytelling and visual hierarchy.

Restaurants may also introduce new ordering tools to increase productivity, but if customers feel confused or fearful of using new tools, the customer experience is affected and the aim of improving efficiency is not met. Thus, new tools have to be made intuitive for customers, or staff have to be trained to educate and encourage them.

How might we encourage customers to choose quickly and easily from a certain selection of dishes? How might we guide customers in adoption of new processes or new self service technology? How might we help customers better understand and make use of unique menu offerings and ordering systems?

> It's quite hard to choose actually. Every time we have to take a while to decide what we want to eat because there are a lot of choices.
> — Customer

> I think I am not that adventurous so I didn't use [the ordering kiosk]. We tend to use what we are familiar with.
> — Customer

**OPPORTUNITY**

# DELIVERING THE RIGHT SERVICE

The front-of-house experience needs to be designed to facilitate the customer's journey, satisfy their expectations, and guide their behaviour. Optimising service delivery is not only about making the experience more efficient, but also adding value in the process to create ease and delight.

**INSIGHT 06**

# MANAGING EXPERIENCE DURING HIGH DEMAND

During peak hours, restaurants are resource-stretched, and both management and customers can be overwhelmed. Nobody expects a perfect experience during the rush hours of lunch and dinner; however, customers do feel that certain little gestures improved the peak hour experience for them.

An important element of the front-of-house experience is the queue management system, which can be used to improve the waiting experience or maximise the use of the customer's time spent waiting.

How might we provide a more pleasant experience for guests or tend to their priorities during the peak hour period? How might we reduce perceived waiting time or maximise its value for customers?

" Of course, you can't expect the queue to be like off peak times, but they still try to maintain. And they will prompt me, they will say, 'Okay mister, today you want to come at 8 right, you have to wait a bit longer, are you okay?
— Customer

" The queuing system is such that while you are paying, the table is already reserved for you, so you can go and queue, then come back to your seat, which makes me feel good.
— Customer

**INSIGHT 07**

# EMPOWER WITH TECHNOLOGY

In casual dining restaurants, where service is increasingly limited, investment in technology-based productivity solutions has become commonplace. However, restaurants often forget the humans who have to change their behaviour accordingly, and technology is implemented without considering users' needs and pains.

When new technology is forced onto customers and staff without considering their needs, they are reluctant to adopt it or are unable to use it to its full potential. Considering the needs and behaviours of staff and customers is essential in guiding the design of these tools — How well does it fit in with their lifestyle? How might the ordering system pose problems for them?

How might we identify the users of the new technology, understand their needs, and co-design for their usage? How might we prototype and forecast effects of changes before making a big investment in technology?

" We take about two months or so to get used to it. Right in the beginning, it was very tough. Not used to it, very slow, searching for the item. Everybody is just, 'Where is the item, where is the item?
— Restaurant Manager

" For me, it's not how intelligent it is. It's how easy it is to use for the staff. Because if the staff see it and they're like, 'Ugh...' — They're not going to use it.
— Restaurant Manager

# DEVELOPING BEHIND-THE-SCENES SUPPORT SYSTEMS

Preparation and planning are the cornerstones of a restaurant's smooth operations. The front-of-house experience can only be as strong as the support system behind it, and people and processes should be aligned to work better together. With the perfect support system, a restaurant would be able to run independent of individual people.

**INSIGHT 08**

# FROM PEOPLE TO SYSTEMS

With the quick turnover of labour in the food industry, the most efficient restaurants are the ones which have created systems and roles independent of individuals, and are clear on what they require of staff. A good system results in chef-independency, seamless front-of-house and back-of-house processes, and consistent service quality.

While creating such systems, a key decision for restaurants to take is whether they want staff to be single-task specialists, which brings focus and speeds up simple processes, or if they want staff to be multi-taskers, which brings flexibility in coping with labour shortages and reassignments during peak and off-peak periods. In both situations, establishing clear job scopes for staff is key in avoiding systemic gaps and miscommunication.

How might we create a system where roles are not dependent on specific individuals? How might we design an environment that helps people to multitask and cover for each other in their roles?

> " I like the American food concept because everything is SOP [standard operating procedure]. It means we are not dependent on one chef. That's what I like because I do not want to be beholden to a particular chef whereby if he leaves, the whole company goes down.
> — Restaurant Manager

**INSIGHT 09**

# INNOVATE EVERY DAY

Restaurants which — intentionally or otherwise — have a culture of including on-ground, operational staff in solving problems and implementing new ideas find themselves with better solutions and greater buy-in.

Successful restaurants know that ground staff are the most familiar with their customers, and are able to provide valuable feedback in designing solutions. Innovation as a continuous daily practice means that staff are not held back by a fear of failure and are more invested in seeing the restaurant succeed.

How might we chart our processes to identify possible chokepoints after implementation, and iterate better solutions? How might we create a culture where experimenting and learning from failures is encouraged and rewarded?

> " Freedom is important because, a lot of times when you have an idea and you need to go through a lot of hierarchy approval, things get thrown back and you cannot try out what you feel is right. So basically I feel that as a person running an outlet, we need to be given the right or the freedom, to try out things that we think can work, because end of the day we'll be judged by how the outlet progresses, and how the outlet works.
> — Outlet Manager

**OPPORTUNITY**

# HELPING PEOPLE WORK WELL TOGETHER

Building a great team means understanding what motivates staff to become loyal champions of the restaurant. Without upgrading machinery or introducing complicated processes, restaurant leadership can transform operations by bringing their team to the next level.

**INSIGHT 10**

# RIGHT PEOPLE FOR THE RIGHT ROLES

Finding good staff is one of the key productivity challenges for casual dining restaurants. Restaurants which successfully overcame this problem were those who sought staff from unexpected labour pools with a clear idea of the mindset, qualities, and values that would complement the restaurant.

Restaurants which are able to explore their staff's full potential were those which made use of innovative training methods and created out-of-the-box learning opportunities to boost the strength of their team. For example, some restaurants adopted mentorship systems.

How might we redesign our induction and training process so that new employees get a stronger sense of belonging and purpose from the beginning?

> " What we actually get the managers and the supervisors to do, every month about once or twice, they come back to the classroom, and we have roleplay — sharing with them scenarios from customer feedback, and new staff feedback.
> — Restaurant Management

> " A lot of people think training is, 'Yeah, I did 50 hours of training last year'. So? What does that mean: Did you change anything about yourself? No, not really — so what's the point?
> — Restaurant Manager

**INSIGHT 11**

# DESIGN FOR COMMITMENT

Beyond using monetary rewards to drive individual productivity, restaurants with strong teams understand how to motivate their staff. Incentives are designed to nurture and retain talent, creating a sense of pride, ownership, and commitment in employees. The best rewards seem to be those which are instant and based on clear, achievable goals.

Restaurants which see a high turnover rate and constant training costs are those which rely solely on individual monetary rewards, or those where staff do not see a clear visible path of progression, making them less committed and ambitious in their performance.

How might we identify and develop non-monetary rewards which increase commitment levels, build teamwork, and encourage a productive service attitude?

> " We don't reward individuals, we reward the group, so it's all about teamwork, it's about upselling, and everyone knows.
> — Restaurant Management

"
Most bosses they sit inside the office. But our bosses go on the ground. When there's a long queue, they will even go into the kitchen to assist, to cook the dishes up, even to prepare a coffee for the customer. So rubbing shoulders with the staff and managers, serving the customers... this is one thing you will hardly see in the F&B scene in Singapore. — Outlet Manager

**INSIGHT 12**
# SUCCEEDING TOGETHER

In the day to day of the restaurant business, staff repeat the same tasks over and over, particularly if their job scopes are specialised and narrowly focused. To avoid boredom and disenfranchisement, restaurants must seek to motivate staff and to maintain strong teamwork and communication.

Beyond monetary rewards and tangible benefits, motivation comes in the form of a healthy working environment and culture: Strong leadership, a team that works closely together, and goals that challenge them to do better. In particular, it is important to emphasise challenges and rewards by creating visible, easy-to-hit targets for the entire team, which creates constant motivation.

How might we create trust and belief amongst employees and lead by example? How might we motivate employees by setting visible, top of mind targets and creating more interest in repetitive tasks? How might we measure and improve the success of our initiatives to create a positive working environment?

“ Most of all, at the end of the day, is about teamwork. It takes teamwork to make this restaurant work. If you are lazy down there, it's very hard, it's very tiring. You have to do triple job... Everything is teamwork. I'm so grateful that all my colleagues help each other.
— Restaurant Staff

**OPPORTUNITY**

# HELPING CUSTOMERS TALK ABOUT YOU

In the age of social media, the word of mouth is the most valuable currency — customers are unstoppable in their reviews, photographs, and stories of the restaurants they visit. Small gestures have the power to create memorable experiences, which will bring customers back again and again.

INSIGHT 13

# SMALL GESTURES, BIG DIFFERENCE

In the age of social media, what customers say and feel cannot be ignored, leading to a feeling of resignation amongst restaurant management. However, the good news for restaurants is that they can use small gestures to turn the tide in their favour to appease and delight customers.

People love to share what they see, hear, or experience. By creating simple 'shareable moments' for customers, such as providing an interesting experience during their waiting time, restaurants can smoothen the customer journey.

How might we develop our own unique style of delivering service, particularly through small service gestures in customer-facing interactions? How might we help frontline service personnel develop foresight and skills of observation to pre-empt moments of unhappiness for customers?

> " You can't stop customers from complaining these days. They can complain on [websites], they can complain on... Anything. Any social media they can complain. So there is no way you can edit and delete them. Because the more you try to do that the worse it will become.
>
> — Restaurant Manager

INSIGHT 14

# BUILDING CUSTOMER-CENTRIC STAFF CULTURE

Customer feedback is collected vigorously by the restaurant management, whether through websites, comment cards, or ad hoc feedback in-person. However, while the staff is responsible for collecting feedback, it is the management who reviews the feedback to be shared. As a result, the customer experience is far from the minds of the staff.

There is an opportunity to create a culture where everybody in the restaurant pays attention to delivering a positive customer experience and understands their own roles in creating it. Staff can then better understand what causes customers to visit and recommend their restaurant.

What are some quick and easy ways to measure customer experience and get useful insights for decision making? How might we make customer experience and reasons for positive recommendations a daily topic among our staff?

> " We're very consciously and aggressively getting feedback from our customers via our online surveys. Each store gets about 150 to 200 surveys a month, times about 15 stores, so you get close to about 3000? And we actually filter those quite aggressively, cutting it down. Compliments — so are you talking about us? What are we doing well? And all the negative feedback — how do you recover, and how do we stop it from happening again?
>
> — Restaurant Manager

**CONCEPT 01**

# KITCHENCONTROL

**MAKING KEY RESTAURANT OPERATION DATA REAL-TIME AND VISIBLE**

A productive restaurant needs seamless overview between the front-of-house and back-of-house staff to avoid miscommunications, especially during busy peak periods. A support system, no matter how robust, functions most smoothly with up-to-date information. An overview of the different data and technological systems running the restaurant will cut down on service staff's communication efforts and improve kitchen staff's ability to prepare ahead.

KitchenControl is a visualisation tool, shown on a screen, that integrates the information provided by the primary technological systems in the restaurant. The screen will be updated each time the staff input information in any of the primary systems.

KitchenControl is able to display key information such as status of orders, table reservations, daily sales, service status for each table. It is also able to relay urgent messages such as sudden cancellation of orders.

## BUSINESS OPPORTUNITIES

Through the syncing of information from various restaurant technological systems, businesses will be able to coordinate staff's understanding of the restaurant's operations. This reduces miscommunication amongst all staff, and ensures that they can react to unforeseen circumstances quickly.

## NEEDS SATISFIED

The communication process between front-of-house and back-of-house staff is improved. With up-to-date information, any changes or cancellation of orders is relayed immediately, allowing kitchen staff to respond and prepare accordingly. This decreases the chances of service lapses due to human errors for smooth running of restaurant operations.

With a smoother running of restaurant operations, customers can enjoy a better dining experience with lesser hiccups.

## TRENDS & INSIGHTS

There is often a communication gap between front-of-house and back-of-house operations, which results in service lapses. While technology has been implemented in the form of productivity systems, better communication is needed between support systems and service delivery.

# KITCHENCONTROL
**MAKING KEY RESTAURANT OPERATION DATA REAL-TIME AND VISIBLE**
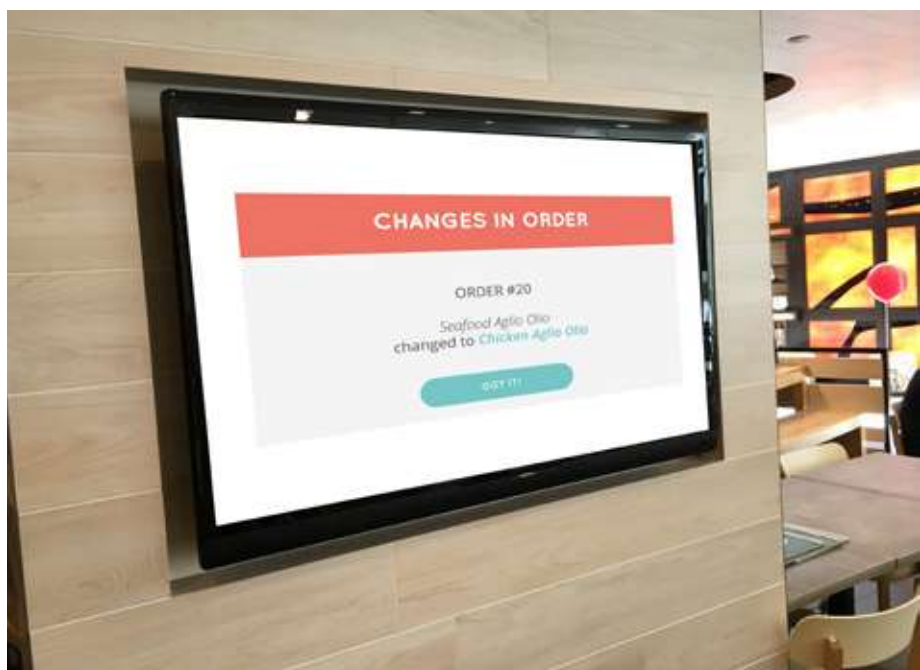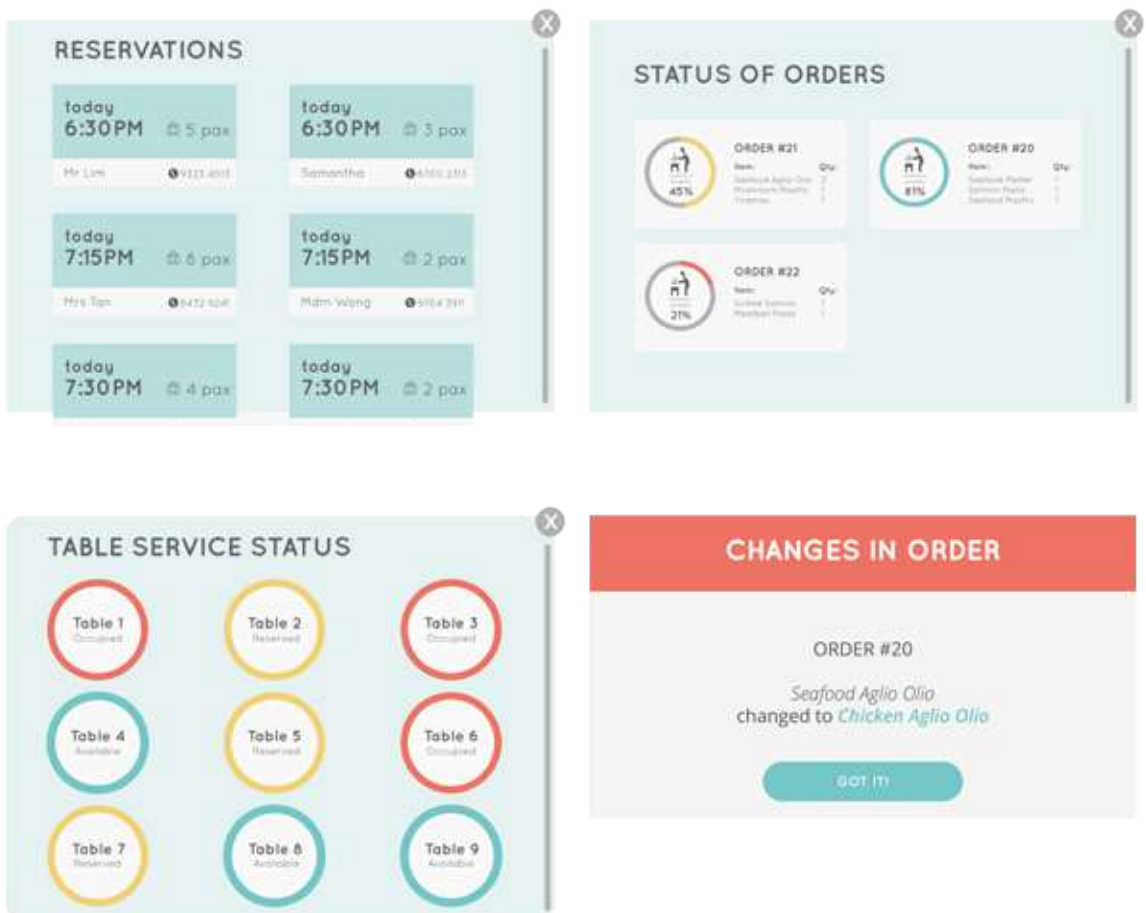


## TABLET FOR FRONT-OF-HOUSE

Service staff can receive a clear overview of the restaurant's situation at any point in time.

## DIGITAL DASHBOARD AT BACK-OF-HOUSE

Kitchen staff will receive immediate updates on any changes in orders and dishes to prepare.

## RESERVATIONS

| | |
|---|---|
| today **6:30PM** 5 pax | today **6:30PM** 3 pax |
| Mr Lim | Samantha |
| today **7:15PM** 8 pax | today **7:15PM** 2 pax |
| Mrs Tan | Mdm Wong |
| today **7:30PM** 4 pax | today **7:30PM** 2 pax |

## STATUS OF ORDERS

**ORDER #21** — 45%

**ORDER #20** — 81%

**ORDER #22** — 21%

## TABLE SERVICE STATUS

| | | |
|---|---|---|
| Table 1 Occupied | Table 2 Reserved | Table 3 Occupied |
| Table 4 Available | Table 5 Reserved | Table 6 Occupied |
| Table 7 Reserved | Table 8 Available | Table 9 Available |

## CHANGES IN ORDER

ORDER #20

*Seafood Aglio Olio*
changed to *Chicken Aglio Olio*

GOT IT!

## INTEGRATED INFORMATION

Information provided by the primary technological systems in the restaurant will be integrated into both the tablet and the dashboard. All service staff can track reservation details, restaurant occupancy and status of orders. This information will help them to carry out their work and better cater to customer's needs and queries.

CONCEPT 02

# FRANCHISEZY

**ENSURING CONSISTENT SERVICE QUALITY ACROSS THE BRAND**

Consistent service delivery sets casual dining restaurants apart from eateries with more limited service, and this is especially important for franchised restaurants. After committing to a business, franchisees realise that running a franchise is not as simple as replicating guidelines, and they also require advice in many areas of operations. Lacking a proper platform, franchisees bring up their queries to the franchisor over calls or messages as and when they have a question.

Franchisezy is an online platform when franchisees can log on to post queries, receive service delivery tips and conduct flexible resource planning.

Common scenarios: Videos and illustrations to highlight common situations that franchisees might face, along with possible solutions. Situations might include: orientating new staff, handling customer complaints, upholding service gestures during peak hours, and so on.

Restaurant Calculator: Franchisees only need to input the number of expected customers for the day. They will then receive an approximate forecast for number of service staff, kitchen staff and inventory needed to ensure smooth operations.

Franchisee community centre: Platform that allows franchisees to post questions, concerns or clarifications. They can also start discussion topics and threads here to share solutions with fellow franchisees.

## BUSINESS OPPORTUNITIES

The platform creates an active franchise network, where knowledge can be generated and shared freely. This helps businesses in data collection and knowledge management. This also gives assurance for potential franchisees that help and advice is easily available after committing to a franchise, and gives them great reason to trust the business.

## NEEDS SATISFIED

Franchisees are able to gain access to easily comprehensible tips and solutions, eliminating singular reliance on a single source (the franchisor) for information and assistance. They can then better plan and manage restaurant resources to ensure smooth operations.

Franchisors can pre-empt possible queries and problems from franchisees, and focus efforts on addressing urgent and unique challenges from franchisees.

## TRENDS & INSIGHTS

There is a need for a proper platform to provide relevant and effective guidance to franchisees in a convenient manner, in order to deliver consistent service delivery without disrupting franchisors' operations.

# FRANCHISEZY

**ENSURING CONSISTENT SERVICE QUALITY ACROSS THE BRAND**
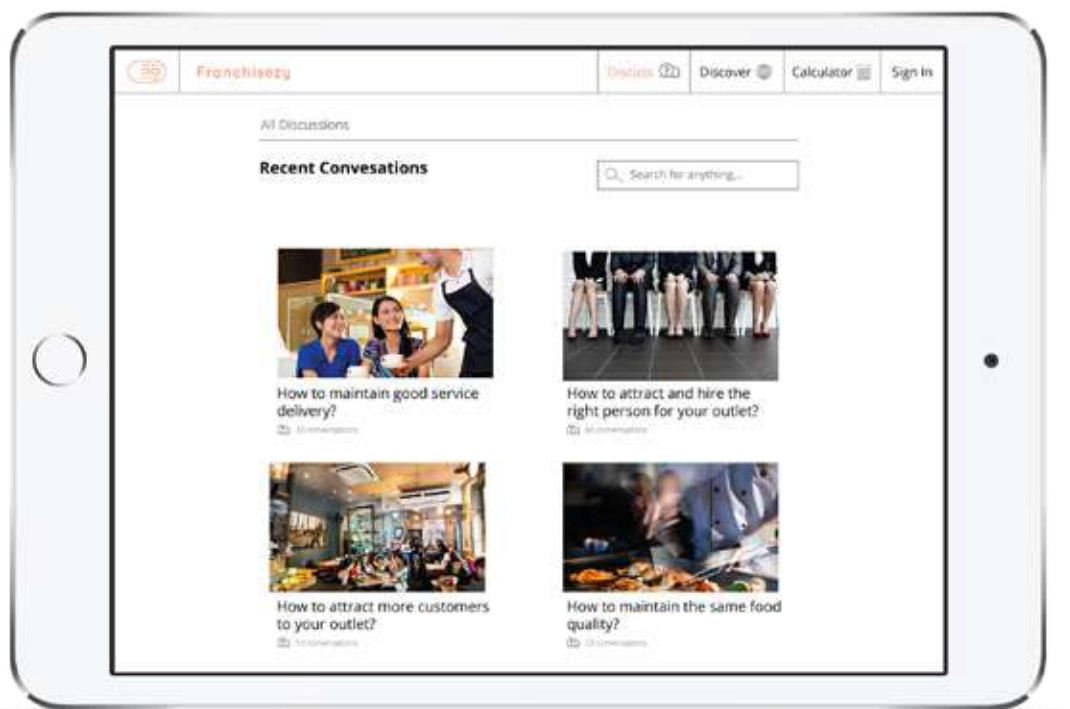


## FRANCHISEE COMMUNITY

The app provides an opportunity for franchisees to connect with one another, share stories, ask for advice, and start discussion topics and threads.

## FRANCHISOR'S EXPERIENCES

Franchisors can share common scenarios that franchisees might face, and highlight possible solutions from their experience.
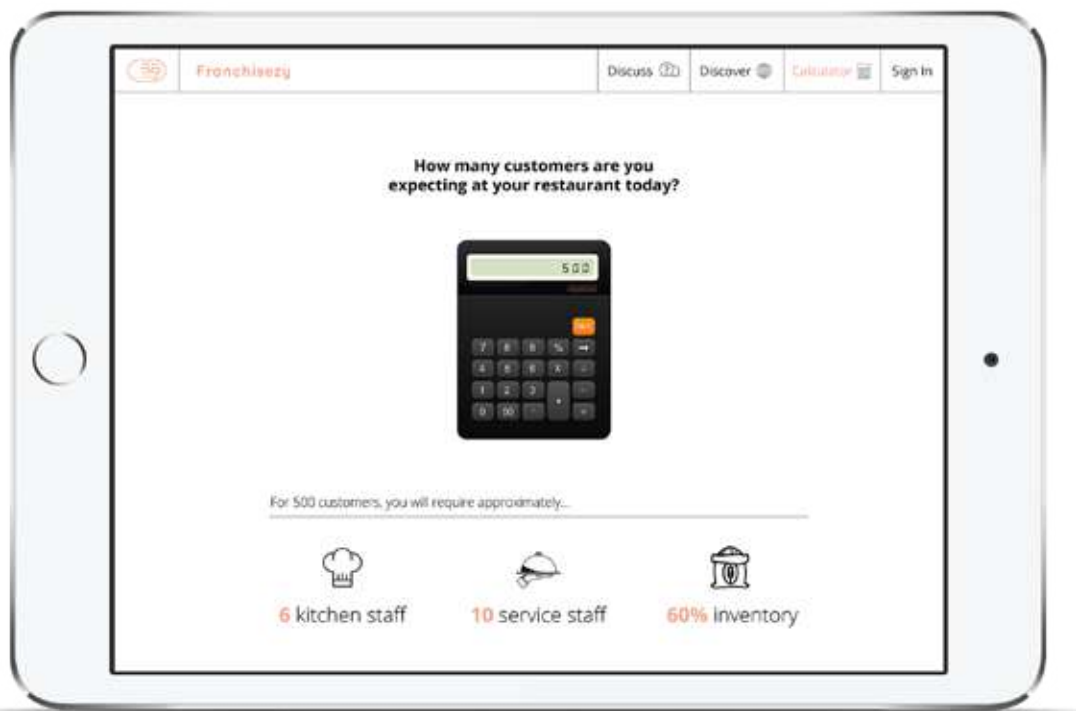
## RESTAURANT CALCULATOR

This calculator provides a quick and efficient estimate of the number of staff needed in the back-of-house and front-of-house, as well as inventory needed for franchisees who are inexperienced in managing restaurants.
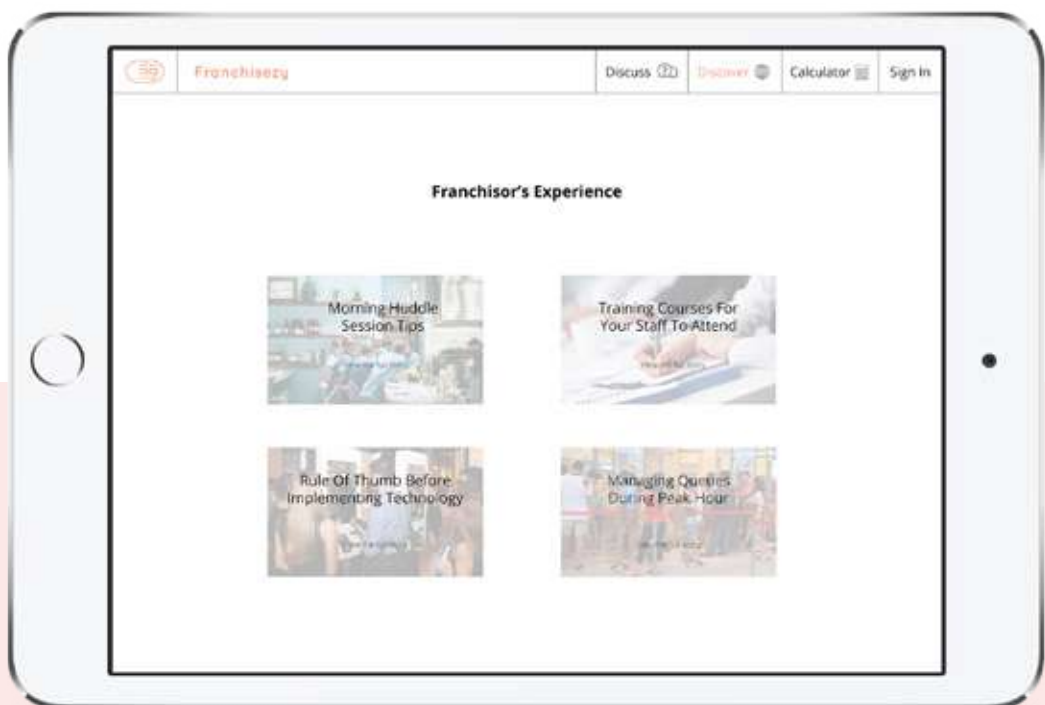
**CONCEPT 03**
# MAKANBOARD

**SEEING YOUR FIRST RESTAURANT COME TO LIFE**

Identifying the right promise and building a great concept are key to drawing customers and making a restaurant smooth-running and coherent, but restaurant owners do not always have the knowledge or experience to do so when starting their first restaurant. Going step by step and taking a journey in the customer's shoes can help to bring clarity to the concept and deeper touchpoints they want to deliver to their customer, and aid them in avoiding costly mistakes.

MakanBoard is a gamified tool which lays out the restaurant ecosystem as a board game. At the start, each player will assume the role of a stakeholder (e.g. manager, chef, waiter, customer) for the game.

Every restaurant key touchpoint will be mapped out as a landing stop. At each stop, there will be cue cards that prompt players to reflect on and articulate the design of these touchpoints for their restaurant.

There will also be option cards listing possible permutations of the various touchpoints to spark discussions amongst players.

After discussion at each stop, players will build their desired touchpoint in the centre of the board. This will eventually form the blueprint to develop or enhance the touchpoints of the restaurant.

## BUSINESS OPPORTUNITIES

Instead of relying on management's perspective and gut feel to design restaurant touchpoints, Makanboard serves as a tool to aid management in finding clarity to the restaurant concept and identify deeper touchpoints to deliver to customers. This is especially helpful for management who do not have the knowledge or experience in opening their first restaurant business, or who are looking to tweak their business model as they move forward.

## NEEDS SATISFIED

Restaurant owners and management have a fun and structured platform for discussing restaurant operations, and they are able to identify previously neglected touchpoints from a new perspective.

When the touchpoints of a restaurant are clearly identified and crafted, customers can then enjoy better dining experience, which will drive customer loyalty and attraction.

## TRENDS & INSIGHTS

Restaurant owners and management need a structured tool to guide them in identifying and articulating their restaurant story across all touchpoints, to create a coherent and customer-friendly concept.

# MAKAN BOARD
**SEEING YOUR FIRST RESTAURANT COME TO LIFE**



## THE BOARD

A map of restaurant ecosystem highlights different touchpoints along the way to educate and guide players.

## BUILDING BLOCKS

Players use this at the end of every stop to represent their desired
outcomes for each touchpoint. By the end of the process, the blocks
will be used to form a complete concept.

**1** **PLAYER PIECES**

The pieces represent different
stakeholders in the restaurant ecosystem
to ensure all perspectives are covered.

**2** **OPTION CARDS AND CUE
CARDS**

Option cards provide permutations
for different touchpoints to act as
inspiration for discussion, while cue
cards prompt players to discuss the
touchpoints from new perspectives.

**CONCEPT 04**

# M.Y.O. MEAL

**AN INTUITIVE, EFFICIENT, LOCAL METHOD OF SELF-ORDERING.**

Casual dining restaurants have adopted various advanced ordering systems to move towards semi-service in their operations; however, the focus on technology obscures user-centricity in creating these systems. To ensure efficient adoption of self-service methods by customers, the ordering systems need to be simple, approachable, and intuitive, and create a pleasant start to the customer's journey.

Inspired by a local habit and ritual seen in hawker centres of picking your own ingredients — for instance, at 'yong tau foo' stalls — M.Y.O Meal puts a twist on this local ordering system and brings it to a more sophisticated level for semi-service restaurants with customised food offering.

M.Y.O Meal is an intuitive, efficient, and local-inspired method of self-ordering, which educates and guides the customer.

The ingredients are clearly visualised and represented as small wooden objects within compartments at the booth. Customers can pick and mix different ingredients and pass their selection to staff when placing their order.

When the bowl is passed to the back-of-house, kitchen staff can then easily decipher the orders from customers and prepare their meals accordingly.

## BUSINESS OPPORTUNITIES

When customers are familiar with and well-guided in using the self-ordering system, chokepoints are reduced in the process flow of a semi-service restaurant's operations. A decreased waiting time for ordering food will enable the restaurant to accept a greater volume of orders and create more table turns during peak periods.

## NEEDS SATISFIED

Customers will be more satisfied and engaged with an interactive and user-friendly ordering experience that cuts down their waiting time.

With ingredients visually and physically represented, kitchen staff will be able to increase their efficiency, with less mistakes made and greater capacity to handle a large volume of orders. A visual representation of orders will also decrease the chance of miscommunication between staff who speak different languages.

## TRENDS & INSIGHTS

While implementing productivity solutions, businesses have focused on high-cost, high-tech ordering solutions that fail to delight customers or smoothen their journey.

# M.Y.O. MEAL
**AN INTUITIVE, EFFICIENT, LOCAL METHOD OF SELF-ORDERING.**



## INTUITIVE ORDERING EXPERIENCE

An alternative ordering experience for semi-service restaurants with customised food ordering that is simple and engaging in 3 simple steps as shown.

## WOODEN BLOCKS

Ingredients are clearly visualised and physically represented, which guides customers during ordering phase and helps kitchen staff to easily decipher orders and prepare them accordingly.

## SELF-ORDERING

After picking and mixing different ingredients, customers hand their selection over to staff when placing their order.

CONCEPT 05

# ENGROW

**ENABLING STAFF TO GROW WITH THE COMPANY**

To build a great team that works well together, casual dining restaurants need to be able to hire, retain, and motivate staff. New staff may be uncertain about their future in the industry, and may feel that the opportunities for them to be promoted as managers or chefs are limited. With increased visibility in career progression and proper mentorship systems in place, restaurant staff can be more certain of their future and receive more guidance as they progress.

Engrow is a set of information cards that new staff receive when they first join the company. The deck of cards consists of a welcome note, journey progress chart, common work scenarios with tips on how to respond, and feedback cards. Information on the cards are customised according to each company's Standard Operating Procedure. Engrow can exist in both digital and physical forms.

Engrow aims to "grow" with the staff — each section of cards will be replaced when they progress to the next phase of their career. For instance, when a waiter is promoted to become a restaurant manager, the waiter's scenario cards will be swapped out for common situations that a restaurant manager would face.

## BUSINESS OPPORTUNITIES

With Engrow, businesses will have a tool to overcome hiring and long-term retention of quality staff, and providing a pathway for both managers and staff in progression and training. Orientation of staff is now more standardised, ensuring more consistency in service delivery.

## NEEDS SATISFIED

Satisfied staff who look forward to career progression will stay on for a longer time with the company. Staff will also be better trained and engaged, which allows them to tackle their job scope with less stress and more confidence.

With a proper feedback system in place, there will be higher quantity and quality of feedback between staff and higher management.

## TRENDS & INSIGHTS

There is a lack of proper training tools to equip staff with the necessary skills for their current and future roles, which is necessary in order to build a team that works well together and stay on with the restaurant.
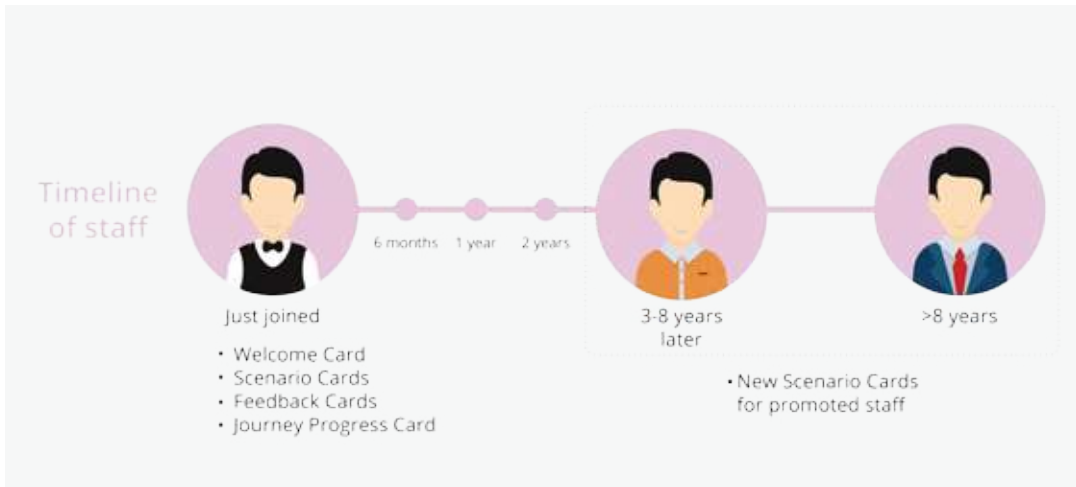
# ENGROW
## ENABLING STAFF TO GROW WITH THE COMPANY



### WELCOME NOTE

New staff are guided on how to use Engrow. The note adds a personal touch to make the new employee feel welcomed, and could include stories from staff previously working in the same position.

Timeline of staff

6 months    1 year    2 years

Just joined

3-8 years later

>8 years

- Welcome Card
- Scenario Cards
- Feedback Cards
- Journey Progress Card

- New Scenario Cards for promoted staff

## TIMELINE OF STAFF

Engrow is given out to staff when they first joined the company. The set of cards will be tailored accordingly to the different career stages of staff.

**1  SCENARIO CARDS**

Staff are briefed and pre-empted on common scenarios that might occur in the workplace. This provides helpful tips for staff to effectively handle such situations and highlights good practices to follow when interacting with customers.

**2  JOURNEY PROGRESS CHART**

Staff can clearly view their career path mapped out in the company, with a timeline to provide clarity of potential career progression, and a list of roles and responsibilities of the various positions in the organisation.

**3  FEEDBACK CARDS**

A channel for staff to write down suggestions anonymously is provided, which helps to shape a company culture of feedback.
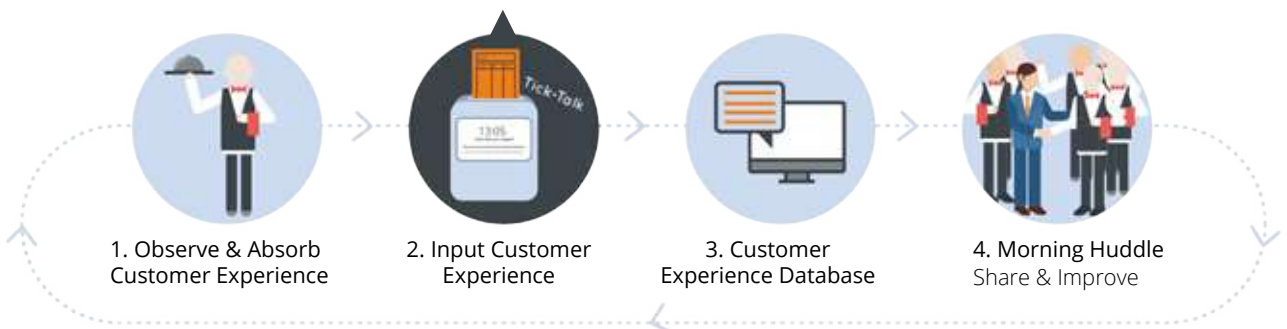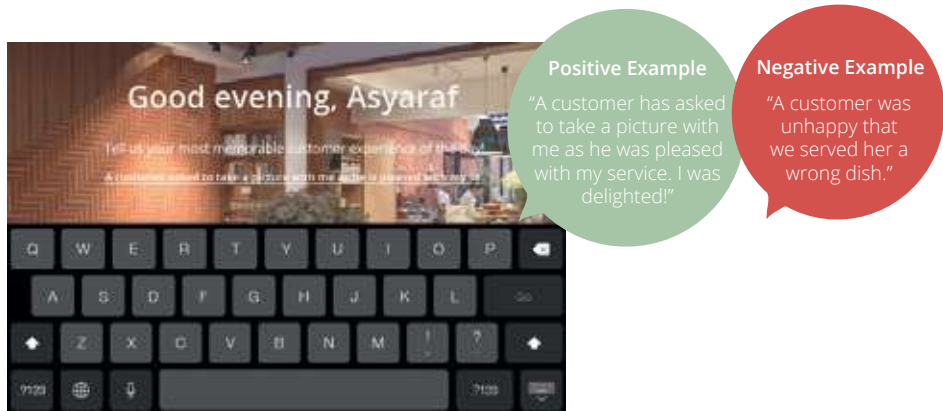
**CONCEPT 06**

# TICK-TALK

**CREATING SERVICE TALKING POINTS FOR STAFF**

Helping ground staff work together to become more customer-centric in their daily approach means feedback has to be shared with them to actively promote a culture of talking about the customer experience. Rather than one-directional feedback collected from customers and filtered by management before being shared, a more interactive and open system of engaging staff in discussion on the customer experience is needed.

Tick-Talk builds on the current punch-card system by incorporating this system in their daily routine of clocking their work hours.

At the start of their shift, they will be asked about their service goal of the day when they clock in. At the end of their shift, Tick- Talk requires employees to describe their customer experience of the day before the machine clocks them out.

The customer experiences of the day are stored in a database, where all staff can review and analyse the inputs. Staff can then pick out experiences to be shared during daily briefings. With this information, staff can either be encouraged or educated on improvements to be made on a regular basis.

Good evening, Asyaraf

**Positive Example**
"A customer has asked to take a picture with me as he was pleased with my service. I was delighted!"

**Negative Example**
"A customer was unhappy that we served her a wrong dish."

1. Observe & Absorb Customer Experience

2. Input Customer Experience

3. Customer Experience Database

4. Morning Huddle Share & Improve

## BUSINESS OPPORTUNITIES

With Tick-Talk in place, businesses can actively promote a culture amongst staff of talking about customer experience through a more interactive and open system. This will increase the quality of service in the restaurant, attracting more customers, and also allows the business to attract more talent through a strong service reputation.

## NEEDS SATISFIED

Staff will be inspired to think proactively and daily about the customer experience, creating a culture of shared ownership over customer experience. It prompts them to discuss customer stories on a daily basis, helping them to understand best practices and learn from their peers.

With a customer-centric restaurant culture, customers will enjoy better service quality and dining experiences, with service staff who pay close attention to their needs.

## TRENDS & INSIGHTS

There are limited opportunities for staff to share and learn from each other's service experiences, which is key to building a customer-centric culture.

# TICK-TALK
**CREATING SERVICE TALKING POINTS FOR STAFF**

### PUNCH MACHINE

Interactive punch machine that prompts staff about their service goal of the day when they clock in, and requires them to key in their customer experience of the day before they clock out.

### INTERACTIVE SCREEN

Every staff enters their customer experience of the day at the end of their shift. These experiences will then be stored in a database, where all staff can review and analyse the input.

1. Observe & Absorb Customer Experience

2. Input Customer Experience

Tick-Talk

13:05

4. Morning Huddle Share & Improve

3. Customer Experience Database

## CUSTOMER-CENTRIC STAFF CULTURE

Tick-Talk helps staff think proactively and daily about customer experiences, and everyone will have the opportunity to discuss and share best practices. This creates a culture of shared ownership over customer experience amongst the staff.

# FOOD COURTS AND KOPITIAMS: FROM INSIGHTS TO CONCEPTS

## AUTHORED BY NEXTOFKIN

Food courts and kopitiams offer an assembly of food vendors and stalls in one venue. They are extremely popular food places among Singaporeans, valued for their assorted food choices and affordability. Kopitiams are traditional coffee shops that can be found practically everywhere in Singapore. Food courts operate similarly, but typically have air conditioning, and found in shopping malls. Many stakeholders cross paths in these busy places, and each can be seen as an ecosystem within which food, vendors and patrons meet and interact. All parties play important and interrelated roles, and one must understand them in order to design for productivity in a holistic manner.
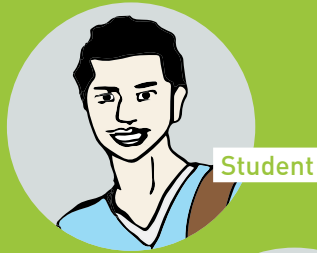
**PERSONAS**
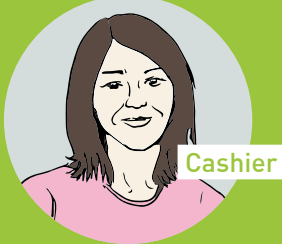
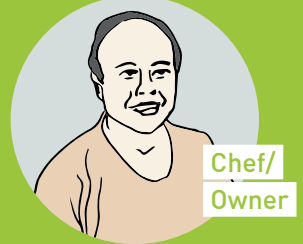**OPPORTUNITIES AND INSIGHTS**

**CONCEPTS**
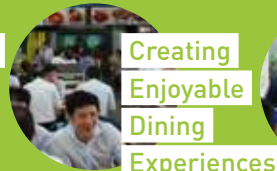
Retiree

Student

Cleaner

Cashier

Food Supervisor

Chef/Owner

Easing Congestion For Smoother Walkways

Designing Around Seating Habits

Creating Enjoyable Dining Experiences

Engaging Customers For Business Growth

Delivering Quality Food For All

Improving Stall Layouts For Effective Use

Streamlining Ordering Processes

Improving Cleaning Workflow

Engaging Customers In The Clearing Process

Improving Perceived Job Value
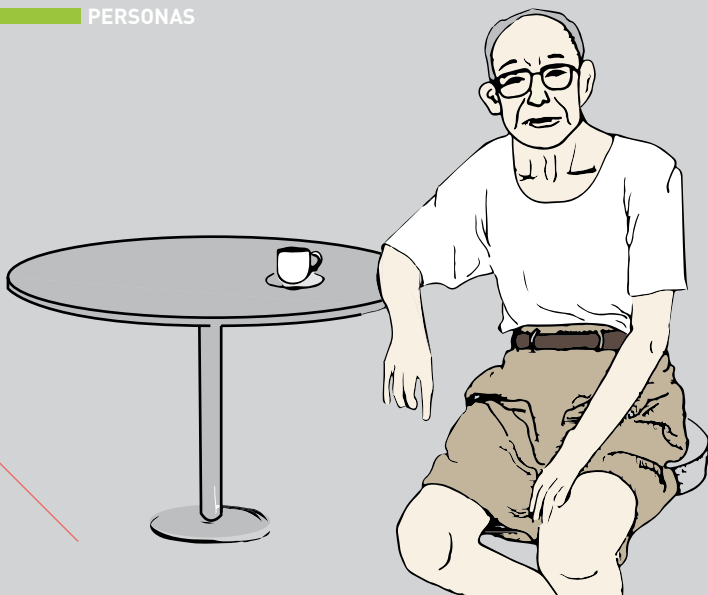
Lane+

Tray-ble

Health Point

KPTeam

Magi

Eat, Return, Reward.

> " Kopi is my must-have for the day.

**PERSONA 01**

# The Nostalgic Kopitiam Go-er
Retiree

Mr. Tan spent his entire life in Singapore and has witnessed the development of the country. He still recalls the days when living costs and standards were relatively low as compared to the surging costs of living now. Mr. Tan has been living a frugal lifestyle as he grew up with the street food culture in his early days. As such, he has developed a preference for local food at very affordable prices. When deciding what to eat, he will consider price as priority.

**VIEWS**

Concerned about food courts losing the authenticity of kopitiam food

Kopitiam as part of the daily routine

Nostalgic about kopitiam culture

He will consider price as priority

**ATTITUDE**

Sees kopitiam as part of the true Singaporean culture

Fully embraces the kopitiam culture

Price-sensitive about kopitiam food

Eating is an important ritual

**QUESTIONS**

*"How might we preserve the authenticity of kopitiam food?"*

*"How might we make food court food more affordable while retaining the local flavour?"*

**"** Kopitiam food is a stomach-filler.

PERSONA 02

# Trouble-Free Foodie
Student

Tim grew up under the influence of both Western and Asian culture. He perceives eating western food in restaurants as a more premium experience. Kopitiam food is viewed as a stomach-filler due to the regularity of dining and the proximity of food court locations. When Tim goes for lunch with his friends, they would prefer restaurants to food courts if the time allows. Kopitiam becomes a quick solution when they are pressing for time.

**VIEWS**

Looking for the best value for money

Hates to wait long for food

Hates crowds

Prefers restaurants to food courts if the time allows

**ATTITUDE**

Kopitiam food is just average - a stomach-filler

Perception of dirty environment

Perception of messy crowd

Generally low expectations of kopitiam food quality

**QUESTIONS**

*"How might we bring up the kopitiam food standard to win over his heart?"*

*"How might we make the kopitiam environment more conducive for eating?"*

> " The life of a retiree is boring.

PERSONA 03
# Restless Retiree
Cleaner

Meizhu was retired and stayed at home for four years before she joined the food court as a cleaner. Life was pretty boring when she stayed at home. She finds herself happier when working outside as she feels more connected to society. Being able to walk around has also become a form of exercise to her.

## SKILLS

Willing to learn basic skills to do the job

Shys away from complicated systems

Meeting requirements set by the company is sufficient

Limited career opportunities for retirees

## ATTITUDE

Does not want to live a boring life at home

Likes to feel connected to society

Likes to help people and feel appreciated

Perceives job as leisure work to kill time

**QUESTIONS**

*"How might we instill the sense of achievement for kopitiam workers?"*

*"How might we make a job in the kopitiam more elderly-friendly for retirees?"*

"I work here because I have no other choice."

PERSONA 04

# Second Career Seeker

Cashier

Annita had been working as an office clerk for over ten years, which gave her a high level of job confidence and self-esteem. She was recently retrenched as her company was affected by the economic downturn. Given her age, it is difficult for Annita to find a job in her field while struggling with family commitments.

**SKILLS**

Reluctant to learn new skills

Comfortable with current skill set

Limited job skills

Trapped in the transition between the working and retiring age

**ATTITUDE**

Competent worker with good job ethics

Does not like to be ordered around

Past job fostered a high level of job confidence and self-esteem

Feels undervalued by current employer

**QUESTIONS**

*"How might we upgrade the job value of kopitiam workers to provide a better sense of achievement?"*

*"How might we help the employers better fit the right talent to the job positions?"*

" I want to be always reliable and accountable for.

**PERSONA 05**
# The Jack-of-all-Trades
Food Supervisor

Starting as a stall assistant, Sun has been with the company for five years and has recently been promoted to the role of food supervisor. The job has provided him with incentives for career progression, which drives him to constantly perform and outgrow himself.

**SKILLS**

Constantly willing to learn new skills to progress within the company

Accepting of new ideas

Lack of manpower has made him take on multiple roles in the company

Worked his way up from the bottom.

**ATTITUDE**

Highly loyal to the company and sees it as second home

Feels responsible for the staff and customers

Feels he can grow with the company.

Constantly looking for new challenges in his job

**QUESTIONS**

*"How might we provide better job incentives to motivate kopitiam workers?"*

*"How might we attract a new demographic of workers to ease the problem of manpower shortages?"*

" I love cooking for people.

PERSONA 06

# Clueless Business Owner

Chef / Owner

Mr. Toh owns a stall that sells authentic soup and dim sum. He has been an experienced cook for many years. He believes good food quality is the most important factor in the success of food businesses. His favourite quote "Good wine needs no bush" describes his business philosophy, which simply means good food needs no advertising, and that people will naturally come.

**SKILLS**

Unwilling and do not find the need to refine his culinary skills

Lack of business knowledge

Open to ideas to improve his business model

Lack of means to gather consumer feedback to improve on food and keep up with food trends

**ATTITUDE**

Loves his job

Passionate about cooking for people

Blind confidence of his creations

Worries about sustaining the stall

**QUESTIONS**

*"How might we help business owners improve their businesses by improving the food quality?"*

*"How might we help business owners build consumer feedback channels to keep up with trends?"*

# EASING CONGESTION FOR SMOOTHER WALKWAYS

Kopitiams get very congested during rush hours, something locals know all too well. Apart from the lunch-dinner crowd and some more populated locations, congestion is often worsened by a lack of thorough consideration for the flow of human traffic. How might we better manage the peak hour crowds to reduce congestion by understanding the needs of various stakeholders in the kopitiam? How might we use the opportunities to redesign the space and create a more enjoyable visiting experience for the customers?

INSIGHT 01
# QUEUING MAYHEM

Singaporeans often regard long queues at food stalls as indicators of good food, and many do not mind queuing to eat their favourite dishes. These queues block human traffic, especially during lunch and dinner peak hours. Blocked aisles often frustrate other customers trying to navigate their way around. Overwhelming crowds also turn away potential customers. Large queuing crowds also often 'overflow' to neighbouring food stalls. People find it difficult to identify the right queues to join, which is time-consuming and annoying.

In the planning stages of kopitiams, spaces for food stalls and dining are placed above walking aisles. The difficulty to design spaces to accommodate queuing crowds is compounded by the difficulty in estimating potential queue lengths for specific food stalls. Current solutions make use of sign poles and belt stanchions to direct queuing. Some of these cause visual mess and are hassles to maintain. How can we use other solutions to manage the crowd? What are other ways of instructing people to follow a certain order while queuing?

> " People gets confused by the overflowing queues. They cannot tell which is the one to queue in.
> – Operations Manager

INSIGHT 02
# TROLLEY ROADBLOCKS

Customers use aisles to navigate kopitiams, and access the food stalls from the dining area. Cleaners also make use of these spaces to shuttle between dining and washing areas.

Trolleys increase cleaners' productivity, but also cause blockages and worsen congestion caused by queuing customers, especially during peak hours. To maintain cleaning efficiency while enhancing dining experiences, one needs to understand the needs of both customers and cleaners.

How might we rethink the walking aisles to meet the needs of both the customers and cleaners? What are the underlying needs for them and how can we better design the space to suit their needs?

> " Pushing the trolley is no doubt blocking the walkway, sometimes we have no other choices but to use that trolley.
> – Cleaner

> " It feels like our fault that the trolleys are blocking the way during peak hours.
> – Cleaner

**OPPORTUNITY**

# DESIGNING AROUND SEATING HABITS

Asians treasure their meal times and place an importance on food and dining. Mealtimes can be precious social moments and offer brief escapes from the daily grind. It is a delicate balance between fostering a conducive dining experience and maximising business profitability through increasing seat turnover. Dining spaces can be redesigned to be both efficient and conducive. How might we rethink the existing seating system to increase the turnover rate while providing a better customer experience?

INSIGHT 03
# 'CHOPE-ING' INEFFICIENCIES

Using daily items such as tissue paper packets and grocery bags to 'chope' or reserve seats while one is buying food has become a common local practice. This is due largely to the customer's desire to ensure a seat, especially during peak hours. However, from the result of our site investigations there is no evident lack of seats. In fact, the act of 'chope'-ing worsens the seating situation. Other patrons are denied usage of these 'chope-d' seats, which goes unutilised while the customer is buying food. This lowers seat turnover. Disputes also arise when there is no clear demarcation of the number of reserved seats.

How can we design a clearer seat reservation system to prevent disputes? Is seat reservation a necessary solution to seat scarcity? What other ways could there be to help alleviate the seating issue?

> " I think it's a culture of Singapore.
> – Customer

> " If the customer reserve the seat at the end they never come, that means maybe this seat maybe wasted.
> – Operations Manager

INSIGHT 04
# SEAT HOGGING

Customers tend to hog seats for purposes other than eating, making them unavailable for others who want to dine in.

Like cafes, food courts are sometimes regarded as places to rest and relax. Customers have been seen lingering at food courts after their meals to chat, study or surf the internet. This becomes a problem especially during rush hours, when people stress over the lack of available seats.

Currently, most food courts use information stickers on the tables to remind their customers to be considerate and not hog seats during peak hours. These, however, are easily neglected and overlooked. How can we remind customers in a more effective and non-obtrusive manner? Could we use other ways to encourage people to leave the premises after their meal?

> " They should have think of other people.
> – Cleaner

"
We need to increase our seating capacity, but at the same time we have limitation of space.

**INSIGHT 05**
# AWKWARD SHARING

The concept of personal space in the context of dining in kopitiams is an important and interesting one. While sharing tables is efficient, people generally refrain from doing so, even during peak hours.

Reasons for this vary across individuals. Some see sharing personal space with strangers uncomfortable and awkward, because they see dining as a time for rejuvenation and some privacy. Some others perceive they have different dining etiquette and hygiene habits. For example, some people leave bones and shells on the table, which some may find unhygienic.

This behaviour -the reluctance to share tables- lowers space efficiency as empty seats at occupied tables are left not utilised. How can we encourage customers to share their tables? How can the table design be changed to facilitate the sharing of seats?

> " If he is sitting right in front of you, it is a bit weird.
> – Customer

> " I don't like to be rubbing against someone's elbow.
> – Customer

**INSIGHT 06**
# EATING ALONE

Current seating layouts accommodate customers in groups. However lone diners find it difficult to find seats among larger groups.

Lone diners form a noticeable proportion of the kopitiam go-ers. However, current seating layouts only accommodate customers in groups. The seats are usually clustered in fours or more. During peak hours, customers who dine alone find it challenging to locate seats. Dining groups, can afford to have one of their members 'safeguard' their seats while the rest head off to purchase food. Lone diners cannot, and may also find it socially awkward to join in amongst a group of diners at the same table. Lone diners deal with this by packing their food from kopitiams to eat elsewhere.

How can we design specifically for the lone diners?

> " Because when you are dining alone, it is more difficult to find a seat.
> – Customer

> " Alone, you will have to hold your food tray and you will not know where to go for a seat.
> – Customer

# CREATING ENJOYABLE DINING EXPERIENCES

Dining experience is essentially the most important offering of any food venue. A good dining experience entails many factors and one must take a holistic approach. Quality of the food, cleanliness of the environment, ambient sound, lighting, scent of the space, customer service and engagement activities matter. How might we improve the dining environment to improve the dining experience? What service touchpoints in the dining journey could be engaged to create an captivating experience that activates all the senses?

INSIGHT 07
# DETERRING DISCOMFORTS

The common impression of the traditional kopitiam environment is that it is hot, dirty and crowded. This impression reflects the true situation in most cases. Most traditional kopitiams are open air and lack air-conditioning. Their affordable food prices and convenient locations draw huge numbers of patrons. However as people become more used to air-conditioning and exposed to other dining options, traditional kopitiams seem to be losing their appeal. Despite the effort that some traditional kopitiams tried to improve their dining environment by adding in air-conditioning and having regular renovations, the stereotype stays and continues to harm the business. It calls for the combined efforts of physically improving the kopitiam dining environment and improving the marketing effort to change the public perception.

How might we use design to change the old image of kopitiams? What improvements are needed to lift up the public perception of the place? How can we incorporate other means like marketing and social media to alter general perceptions?

> " It's hot, dirty and crowded.
> – Customer

> " I don't like it when the trolleys are pushed near me especially when I'm eating.
> – Customer

INSIGHT 08
# LINGERING SMELLS

The smell of cooked food is one of the key deterrents to people visiting food courts. Visiting customers avoid seating near food stalls as some forms of cooking produce strong smells. Food courts with bad air-conditioning and poor air circulation are especially susceptible. For people who are particular about food smells, the dining experience is thus being compromised.

Olfactory design can play a deep role in affecting user experiences. When used well, scents can affect emotions and perceptions. What are the scents that are often been associated with kopitiams? What could be the signature scent for kopitams? How can we use olfactory design to improve the dining experience?

> " Let's say you sit beside a stall that fries, your clothes will be stained with the smells.
> – Customer

> " I try not to seat too close to the stalls.
> – Customer

**OPPORTUNITY**

# ENGAGING CUSTOMERS FOR BUSINESS GROWTH

In order to maintain good business, a healthy relationship between customers and food court management is important. It is not only just gathering feedback and opinions from the customers, but also creating meaningful two-way dialogues. This fosters better understanding amongst each other and strengthens the relationship. It helps build customer loyalty and a stronger brand image to develop the business further. How might we leverage on new or existing touchpoints to create more quality engagement between customers and food court management?

### INSIGHT 09
# QUALITY FEEDBACK

Current feedback channels in kopitiams like feedback forms and customer hotlines are often one directional, and typically inspire complaints. The system often fails to record proper feedback information such as the contact of the informant. Messages are sometimes lost in the transmission between hotline staff and the manager as well. As a result, the feedback becomes hard to track and follow up.

Some food courts conduct surveys of the customers on the spot. The location manager would personally approach customers and survey their food experience. This kind of conversation is more effective since it creates two-way engagements. How can we encourage more quality engagement between the management and customers?

> " I have to understand their thinking, and I hope to get people to come and eat.
> – Stall Owner

> " We personally talk to the customers.
> – Location Manager

### INSIGHT 10
# POTENTIAL TOUCHPOINTS

The current user journey in a typical food court or kopitiam is highly linear and routine. Customers come in, decide the food stall, purchase the meal, eat and leave. People perceive food courts as purely functional with little room for delight.

To change this requires additional stimulations or customer engagements to make the journey more enjoyable and delightful. One can identify many underutilised touch points to engage customers.

One potential touch point is when a customer is queueing for his/her food. During this time, many play with their phones or chat with friends. It shows a clear need for entertainment and social interaction during this particular time. This could serve as a good starting point for business operators to engage their customers. What other opportunities can be leveraged on to create potential engagements between customers and food court management?

> " When I'm queuing alone I usually play games on phone.
> – Customer

> " I come here often so people in the stall know me well.
> – Customer

**OPPORTUNITY**

# DELIVERING QUALITY FOOD FOR ALL

Quality of the food is arguably the core deciding factor for whether a kopitiam will make good business. Food quality needs to be consistent. While consistency encourages good word-of-mouth, inconsistency can turn away returning customers. Thus, managing food quality and quality consistency are both crucial in the food business. How might we design solutions that are contextualised for the local kopitiam, where authenticity and craftsmanship are still much valued while ensuring the standard of food quality and consistency?

**INSIGHT 11**
# TRICKY TASTE

Food quality managers are designated at food courts and kopitiams to maintain food quality and consistency. However, due to reasons like manpower shortages and challenges posed by logistics, food quality managers are often shorthanded for the number of outlets they need to manage. Subjectivity of individual taste buds is also an issue.

Typically, a manager needs to cover five to six stalls on a daily basis. There are currently no standard procedures to food-checking other than to manually taste the food. The food quality manager picks food samples from each dish and tastes if they are prepared properly. This process is highly labour-intensive and time-consuming.

Taste is highly subjective and personal, which means different food quality managers will hold different and inconsistent guidelines. Furthermore, a person's taste buds can vary in condition from day to day. Without professional training or standardised guidelines, this subjectivity leads to inconsistent standards in food tasting.

To deal with manpower restrictions, some food quality managers have been using other methods such as gathering feedback from customers and getting food tasting results from the staff of neighbouring stalls. However, as standards and perspectives vary, food quality often remains inconsistent and difficult to manage.

How can we create alternative ways of managing food standard? How can food tasting be more objective and standardised?

> " I will prefer to personally taste the batch and make sure it is up to the standard.
> – Quality Manager

> " Everyone taste buds are different.
> –Head Chef

"
Lack of effective means to ensure the quality of food and standardisation.

**INSIGHT 12**

# COOKING MANAGEMENT

A food store would usually have several different chefs rotated on shifts and days. Many of these chefs are not stall-owners but instead work as employees of the food stores. These chefs come from different backgrounds and possess different cooking experiences and practices. These are possible factors of inconsistent food quality and taste.

To customers, this means that food from the same store would taste different, depending on the chef in charge. Consistency affects dining experiences, especially those of the regulars. How can we better control the cooking practices to ensure the taste consistency? What can be used to help chefs follow the same cooking process?

**INSIGHT 13**

# CHERISHED CRAFTSMANSHIP

As part of the Singapore culture, kopitiams have become more than merely food places but also channels to pass down heritage of food. They form an important part of the local F&B scene despite the popularisation of fast food and restaurants. Their unique food menu, mostly traditional local delights, remains as a competitive edge.

Authenticity and craftsmanship are therefore much valued in kopitiams as they are seen as crucial factors to the quality of traditional dishes. Stalls celebrate their authenticity of the food ingredients and showcase their chef's craftsmanship by adopting open kitchens and making the food making process transparent.

It is important for people who wish to improve their kopitiam business to understand the importance of authenticity and craftsmanship and design with contextualised solutions for the local kopitiams.

How can we better celebrate the craftsmanship in kopitiams? How would craftsmanship be presented as business heritage and help build a strong brand identity?

> " When the chef changes the taste is not the same as before.
> – Customer

> " We use centralised sauce to ensure food taste is consistent.
> – Quality Manager

> " It's about showcasing the chef and the cooking process.
> – Operations Manager

> " Kopitiam is our local heritage.
> – Stall Owner

175

**OPPORTUNITY**

# IMPROVING STALL LAYOUTS FOR EFFECTIVE USE

Kopitiam staff is often rotated between different outlets to cover empty shifts or for training purposes. Many have expressed issues with having drastically different stall layouts and working environments when they are rotated to other outlets. The need to constantly readjust and re-adapt to new working environments lowers work productivity. To ensure staff can be rotated effortlessly between outlets, the challenge is to design stall layouts that are organised and consistent. How might we redesign stall layouts to facilitate familiarity and promote efficiency?

**INSIGHT 14**
# UNFAMILIAR LAYOUTS

Stall layouts are used by staff on venue and shift rotation. However, they are customised to the main chef stationed there. The layout and arrangement of cooking equipment are designed around the main chef's cooking habits and preferences.

The main chef may not always be around, for reasons like off days and medical leave. In such situations, other chefs will be rotated to the store to take over. They may find difficulty in adapting to a completely foreign kitchen layout. This lowers cooking efficiency and may compromise on food quality. How might we rethink the stall layout design such that staff find it easier to adapt and work within? What are the alternative kitchen designs that are more flexible and user-friendly?

" Each stall has it own layout. They do not put their stuff in the same places.
– Chef

" Sometimes I can't find the ingredient.
– Stall Assistant

**OPPORTUNITY**

# STREAMLINING ORDERING PROCESSES

The ordering process is one of the key experiences in the kopitiam journey. It involves an information transfer and monetary transaction between the customers and the stall staff. However the process is often subjected to human errors resulting in wrong or missed orders especially during peak hours. How might we redesign and streamline the ordering process to create both a better experience and a higher working efficiency rate of the staff?

**INSIGHT 15**
# INCORRECT ORDERING

Communication in the ordering process can be broken down into two steps. The first point of communication begins when the staff listens to and receives orders from a customer. Here, there are chances of incorrect ordering if the staff mishears or misinterprets orders.

The second step of communication happens when the front-of-house staff informs the back-of-house of the orders. This is usually communicated verbally, and presents another potential area for error. How can the ordering process be streamlined to reduce the chance of error? How can we help the staff better manage orders by reinventing the ordering process?

> " I have to keep reminding the uncle because he has a bad memory.
> – Stall Assistant

> " I can only remember the orders up to a number.
> – Chef

**INSIGHT 16**
# LANGUAGE BARRIER

There is a significant number of foreign workers working in kopitiams. It is a common pain point for them to catch the local dialects especially during order taking. Typically, a period of two to three months is needed for a foreign worker to get used to the local food lingo. Other than lowering the working efficiency, language barriers also create occasional miscommunication between staff and customers, even resulting in disputes.

For foreign customers who are not accustomed to the local food lingos, they often find the ordering process puzzling, especially for those food types involving customisable orders such as noodles and 'Zhi Char'. How can we solve the language issue by familiarising foreign staff with the local lingos? Who should be involved to cultivate a more language-friendly environment for kopitiams?

> " When I first arrived in Singapore I don't understand the language.
> – Drink Stall Runner

> " I have to ask the customer to repeat again since I don't understand.
> – Drink Stall Runner

**OPPORTUNITY**

# IMPROVING CLEANING WORKFLOW

Although often being 'behind-the-scenes', the cleaning process is definitely integral to service delivery. Providing solutions to foster good cleaning efficiency not only benefits the cleaners with lessened workloads but also improves the overall productivity of the kopitiam. This translates into higher customer turn-over rates, and better business outlook. How might we use design to create better cleaning infrastructures and equipment that enhance the cleaning efficiency of the cleaners?

INSIGHT 17

# VARYING CLEANING STANDARDS

When cleaners are hired, they are expected to have good cleaning practices and undergo fairly basic job trainings. In reality, these cleaners come from different backgrounds and may have different hygiene standards.

With a lack of standardised guidelines for clearing and cleaning used dishes and utensils, cleaners subscribe to different practices and benchmarks. For example, one cleaner's practice was to wash the cloth used to wipe the tables every two hours while another was to wash the cloth when it got too soiled. Some tables were wiped once while others twice.

Standards may vary at the back-of-house too. Some utensils were passed through the steamer once while some were passed through twice, depending on the staff on duty. Why are there varying cleaning standards? How can we standardise the cleaning procedures and practices?

> " There's no one teaching us. It's only the basic stuff.
> – Cleaner

> " I started cleaning straight away.
> – Cleaner

INSIGHT 18

# HARD-TO-USE EQUIPMENT

Cleaning and washing spaces are often designed to be hidden from the public, in efforts to be customer-oriented. As a result, these cleaning areas are partitioned by higher walls. Some cleaners, especially those who are more senior in age, find difficulty in passing utensils over these partitions to staff on the other side. Containers used to store collected utensils and dishes are often too deep to reach in easily. These equipment are not designed to the cleaners' needs and makes clearing less efficient.

How can the equipment be re-designed? What are the ergonomic needs for the cleaning staff? What are the needs of the food court management when it comes to cleaning infrastructure? How might we improve the accessibility of the cleaning stations while providing adequate cover-up?

> " The height of the counter also bothers us. That's why I hope the counter can be lower.
> – Cleaner

> " It's quite dangerous for elderlies like us to squat down or bend down.
> – Cleaner

OPPORTUNITY

# ENGAGING CUSTOMERS IN THE CLEARING PROCESS

Tray-return systems have been introduced in kopitiams and food courts for the past few years. However, returning their own trays have not been picked up widely as a habit among diners. Diner who do so sometimes do it in ways that unintentionally inconveniences cleaners. Encouraging the take-up of this practice among customers may require a deeper understanding of user needs and behaviour. How might we come up with solutions that could provide true motivations that lead to action?

## INSIGHT 19
# ILL-INFORMED PRACTICES

Some customers were observed to have ill-informed tray-returning practices. Many customers do not realise that certain things they dispose together with utensils at tray return stations hinders the back-of-house clearing process.

When customers dispose their used tissue paper and receipts into bowls of food, they do not realise that these could cause clogging of the drainage systems at the dishwashing area when disposing the liquid waste into the drain. Additional workload is consequently piled onto the cleaners clearing food waste, who now have to filter out the tissues and receipts before sending the utensils for washing. How can we educate the customers of the right practices? What should be the best practice when it comes to tray-return?

## INSIGHT 20
# CONFUSED ROLES

Customers who do not return their trays after dining often do not have the expectation that they need to do so. Existing social norms create impressions that cleaners should be doing that.

With the introduction of a tray-return system, the role of cleaners ought to simply be wiping tables clean, if customers return their trays dutifully. When this does not happen, cleaners have no choice but to continue clearing tables. This furthers existing, even if wrong, impressions about the role of cleaners. The job scope of the cleaners becomes ill-defined, when the intended system is not widely understood or accepted.

How could we redesign the tray-return system with a deeper understanding of user behaviour? What are the other ways to encourage customers to return their trays? Could re-defining the role and job scope of the cleaners help to reframe customers' expectations and perceptions?

"
They just dump everything into the bowl and put onto the shelf.
– Cleaner

"
The cleaning auntie clears away the tray right after I finished.
– Customer

"
It is still our role to clear the trays.
– Cleaner

**OPPORTUNITY**

# IMPROVING PERCEIVED JOB VALUE

Job value and social perception of the industry has a profound effect on the employee's morale and job motivation. Happier workers are more productive. For a demanding industry like F&B, changing the job image and social perception might be the key to encouraging its workers and more importantly, draw more people to the workforce, especially amongst the younger generation. How might we improve the perceived value of jobs in the F&B sector and boost morale beyond traditional incentives like raising salaries and work benefits?

**INSIGHT 21**
# APPRECIATION = MORALE

For F&B staff, appreciation for their work can come from either management or customers. When they feel unappreciated, they will have low morale.

Customers often do not realise how small gestures of appreciation can help staff develop a sense of pride . A simple 'thank you' or the action of returning trays can often go a long way to show appreciation. The current kopitiam system is not consciously encouraging customers to show appreciations.

When management sends staff to continuing education and training, it reinforces the staff's understanding of their job's value, and boosts morale. How can we encourage the show of appreciation from both customers and management? What could other forms of appreciation be to boost morale?

> " I will clean the table very fast for the good customers.
> – Cleaner

> " Just a simple 'thank you' would make a difference.
> – Cleaner Manager

**INSIGHT 22**
# BUILD JOB ESTEEM

Many F&B staff have low job esteem and do not see value in their jobs. Some perceive their jobs as 'last resorts', forced to them in order to survive. This collective lack of pride for the jobs can easily create a negative work atmosphere. At the same time, there is a negative social perception of jobs in the F&B sector. Jobs are perceived to be of low skill sets requirement, and for those unable to find jobs elsewhere. How can we cultivate a more appreciative and empathetic society to help F&B staff feel proud about what they are doing?

> " I should keep my expectation low.
> – Stall Assistant

**INSIGHT 23**
# MISREAD INTENTIONS

When F&B staff have low perception of the value of their own jobs, fuelled by negative social perceptions, misunderstandings from daily interaction can sometimes occur. When cleaners go forward to wipe tables, customers sometimes shift or keep their valuables from the tables. While the intention may simply be to help cleaners at their work, it could sometimes be misread as an act of mistrust. How can we foster trust and connections between customers and cleaners?

> " I'm not sure whether the customers look down on us as cleaners.
> – Cleaner

**CONCEPT 01**
# LANE+

**CREATING A SMOOTHER JOURNEY THROUGH WAYFINDING**

Crowded stall fronts create congestions and inconvenience to cleaners and queuing customers. Separation of the crowds helps regulate human traffic flow and facilitate the work of the cleaners without disrupting customers.

Kopitiams get very congested during rush hours especially at the stall front area where people queue for food, browse stalls and collect food. The congestion is exacerbated by the lack of consideration for the flow of human traffic. One example will be the moving of trolleys. The cleaning trolleys would get into the way of queuing customers adding onto the frustrations of the customers as they navigate through the crowd.

Lane+ introduces a laning concept in the kopitiam that regulates the traffic flow. The coloured lanes separate the walkways into paths that guide users according to their needs. The traffic flow is therefore diverted into different paths. Congestions are prevented as people follow their own lanes instead of getting in each other's way. Icons are further incorporated into the design to provide wayfinding for the users.

The lane also provides opportunities for monetisation such as poster advertisements and campaigns along the paths, which potentially brings extra stream of profit for the company.

## BUSINESS OPPORTUNITIES

A better transiting experience for both the customers and staff of the food court brings a better outlook of the premise which improves the brand image as a whole. Cultivating good consumer behaviours also benefit the business by reducing managing costs.

The addition of colours and visual elements renews and elevates the ambience and creates a better dining experience.

The lanes of the pathways double as an advisement medium that helps the business grow extra margins by attracting partners and sponsors.

## NEEDS SATISFIED

Customers get better dining experience and queuing experience by alleviating the situation of congested aisles.
The cleaners enjoy the benefit of having a smooth journey when pushing their trolleys through the food court.

## TRENDS & INSIGHTS

This concept is based on the insight of how current aisle design falls short in addressing the collective needs of the customers and staff members. Crowd control in a public space like a food court is fundamental when businesses wish to provide a better overall experience.

# LANE+

**CREATING A SMOOTHER JOURNEY THROUGH WAYFINDING**
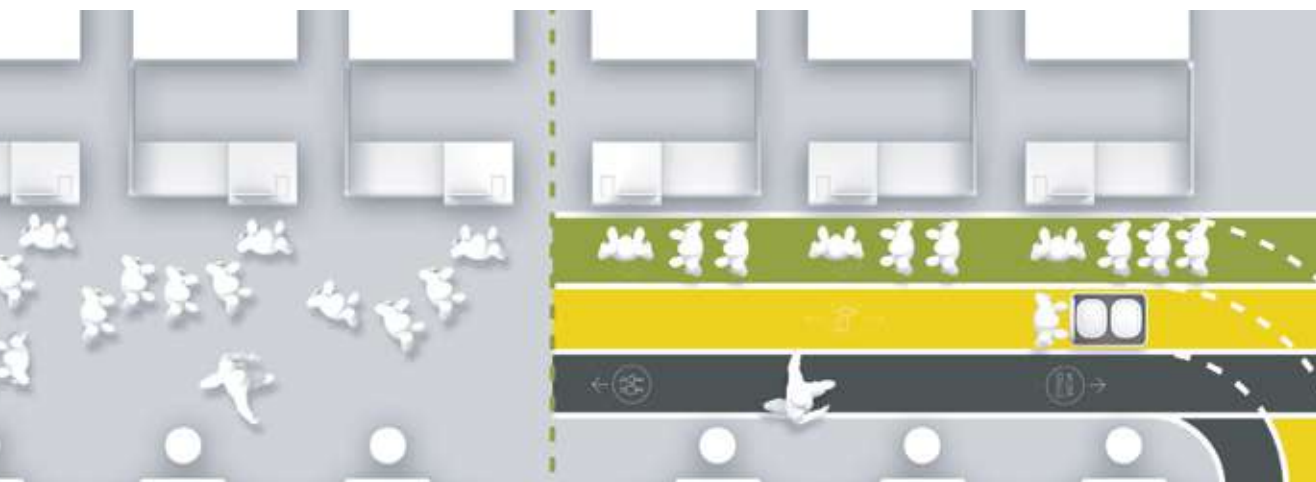


**1** **BEFORE & AFTER**

The situation is significantly improved when lanes are introduced. Users are being navigated in an orderly manner as compared to the previous messy and congested situation.

**2** **ADVERTISEMENT**

The lanes are high traffic areas of the foodcourt. This creates additional monetising opportunities that benefit business by providing ad spaces on the lanes.
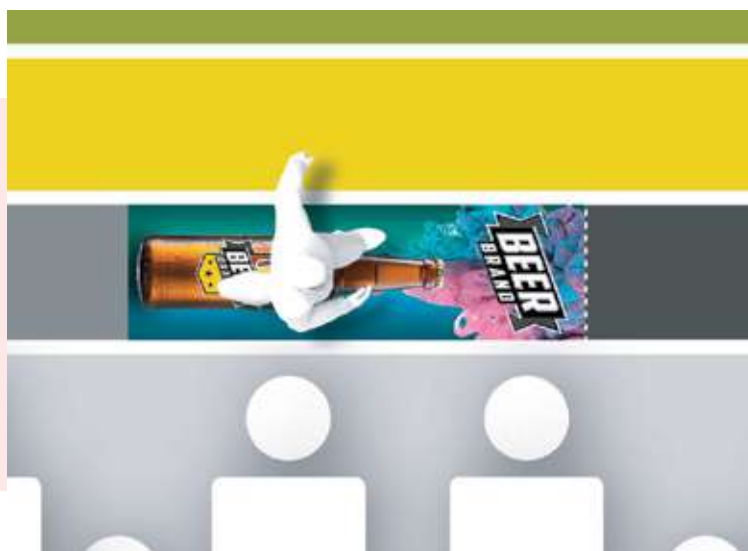
## WAITING LANE

FOR THOSE:   Queuing at stall   Waiting for collection

## TROLLEY LANE

FOR THOSE:   Returning tray   Pushing the trolley

## FAST LANE

FOR THOSE:   Browsing stalls   Needing fast access

**3** **THE FLOOR PLAN**

The illustration below shows how the lanes can be incorporated into the actual location based on various floor plans and seating layout. There could be designated waiting areas for overflowing queues and additional collection counters that further disperse the crowd to prevent congestions.

WAITING AREA

WAITING LANE
TROLLEY LANE
FAST LANE

2

3
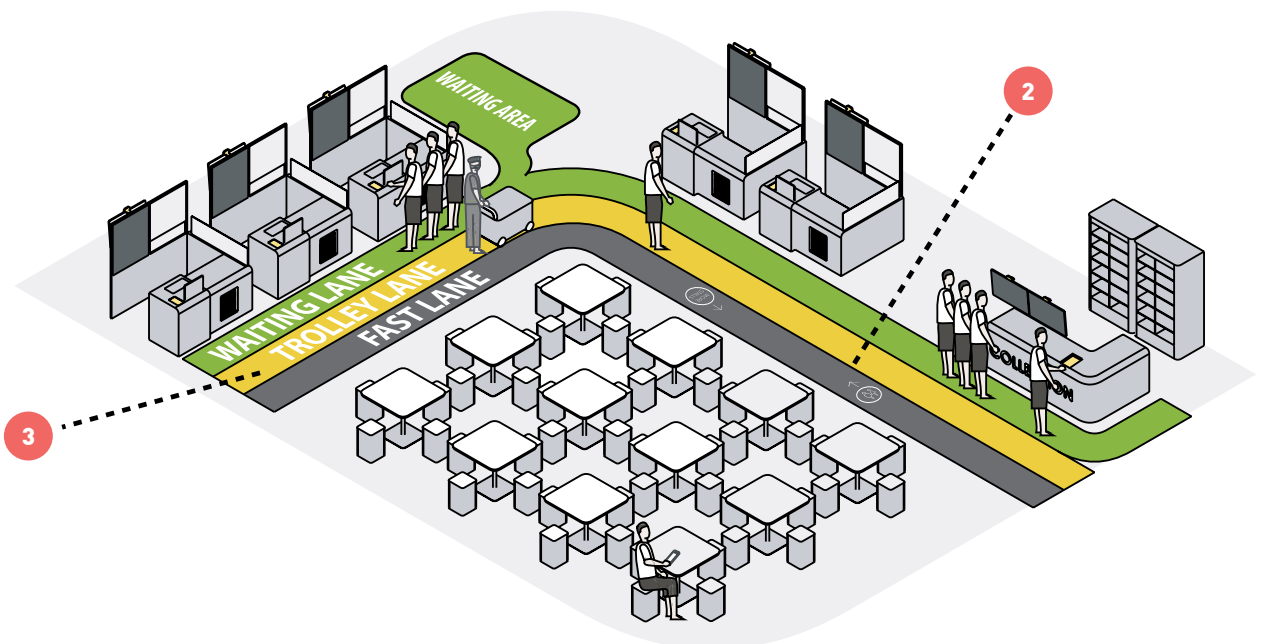
**CONCEPT 02**

# TRAY-BLE

**'CHOPE-FREE' DINING THROUGH A NEW SEATING DESIGN**

Tray-ble is a conceptual design that challenges the norm of seat reservation behaviour and seat hogging by rethinking the structure of seating as a whole.

Seat 'chope-ing' and seat hogging are two common issues in the kopitiams that create seat shortages. The result is undesirable not only for business owners but also for customers who are in need of a seat.

'Tray-ble' is a conceptual furniture design for kopitiams that attempts to resolve the problem of seat 'chope-ing' and seat hogging. 'Tray-ble' is a system where the table is created by inserting the food tray into slots.

Using the Radio-Frequency Identification (RFID) system, the table structure is able to track the dining time when the user first slot in the tray. The time record will be shown in the tray return station after the user has finished the meal and returned their trays. Incentive programmes could be implemented to encourage higher turn-over.

The design is informed by friendly forms to create an inviting environment for the food court. Standing seats are designed specifically for lone diners who seek a fast and convenient dining experience without the hassle of sharing seats with strangers.

## BUSINESS OPPORTUNITIES

The design helps increase the turn-over rate by encouraging quality usage of the premises and minimise seat hogging and chope-ing. It takes a gentle approach to cultivate and change the current habit of seat 'chope-ing' and seat hogging.

Changing consumer behaviours also brings in more business opportunities such as pre-ordering and meal customisation. The system works as a whole from back to front end to create a more efficient and productive dining space concept. Businesses will benefit from the increased revenue as the turn-over rate becomes higher.

## NEEDS SATISFIED

Customers are able to enjoy their meal without the stress of finding seats. Seat usage is maximised and optimised for users who come in to dine.

## TRENDS & INSIGHTS

Customers 'chope' seats when they feel the need to secure a seat before buying food – these 'chope-d' seats are wastefully unutilised in the meantime. However, the act of 'chope'-ing worsens the seating situation and lowers the turn-over.

# TRAY-BLE

**'CHOPE-FREE' DINING THROUGH A NEW SEATING DESIGN**
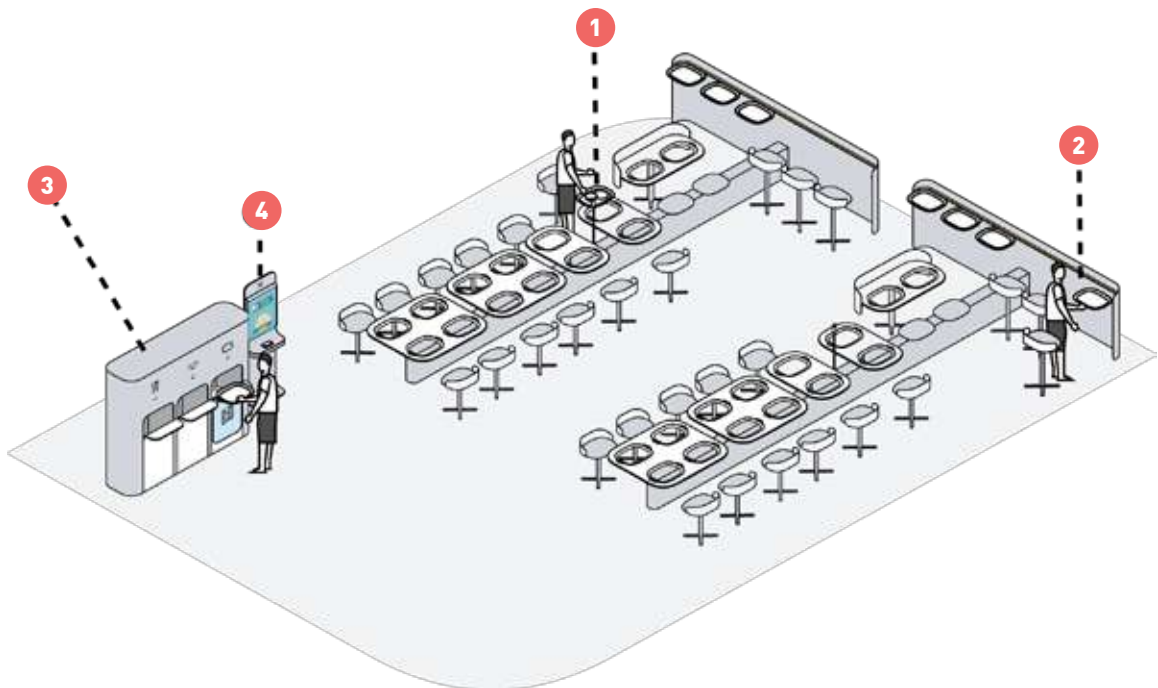




**① TRAY**

The tray has an in-built RFID that synchronises with the table and records the time-in of the user when he/she first slots in the tray.

The tray is designed to fit nicely into the table slot and form a seamless table top for dining.

## 2 SINGLE DINER TABLE

The standing table is designed for the single diners who need a fast and convenient dining experience without the awkwardness of sharing seats with strangers. The table is designed to occupy a minimal foot print when not in use. This optimises space efficiency in the food courts.

## 3 NEW TRAY RETURN SYSTEM

The tray return system consists of three parts: cutlery collection, bowl collection and food tray collection. It aims to foster a better tray return habit through guiding customers sorting out their utensils during the returning process. This alleviates the work load of the cleaners and improves their work efficiency.

## 4 REWARD KIOSK

The reward kiosk is the end touch point for the user journey where customers put their mobile device to the scanner and clock out. The system then computes the dining time that users spent and gives out rewards if the duration is within a certain time frame.

**CONCEPT 03**

# HEALTH POINT

**BUILDING HEALTHIER FOOD PLACES**

A service design concept that aims to transform the common perception of kopitiam food by introducing a cloud based health monitoring service that keeps track of your daily food intake.

The common perception of kopitiam food is often oily and unhealthy. In order to change this mindset and make the kopitiam dining experience healthier, Health Point is created to provide a complementary health consulting service after the dining experience in kopitiams.

The structure is designed to be a digital concierge that measures and tracks users' health statistics including heart rate, blood pressure, blood sugar level and BMI. The cloud based system will analyse and provide health related recommendations to the user. With the complimentary app, the system allows the users to keep track of their health and food intake across different platforms and locations, even beyond the food court.

Additional health products such as herbal juices and organic vegetables are available for purchase in the Health Point. With health recommendations given by the digital doctor, consumers are offered with products specifically catered for their conditions and health needs. It can also be a simple supplementary stall that provides healthy products for the passer-by.

Greenery on the structure serves as a design element and a visual interest for the consumers when they come into the food court. It also conveys the idea of a 'green' food court by creating a more natural and earthy look and feel for the interior space.

## BUSINESS OPPORTUNITIES

By integrating the physical structure and the digital service of Health Point, it creates a new service for the customers in addition to the regular food business.

Extra revenue is generated from the selling of various health food products such as herbal tea and organic vegetables. The concept is expandable to create a whole range of health products that can be built up into a sub-brand.

The system collects and tracks various users' health data and personal data which could be a critical asset to the core food business. It allow business owners to better understand their users and create customer loyalty.

## NEEDS SATISFIED

The concept is an image make-over for the traditional kopitiams and food courts by changing the common perspective of seeing them as unhealthy dining places. It creates a complete dining journey with the concept of 'healthy eating'. Customers enjoy healthier food selections and receive an additional health monitoring service.

## TRENDS & INSIGHTS

Food courts and kopitiams are often tagged with negative associations of being unhealthy, dirty, and visually unpleasant. As people grow more and more health conscious, local food places tend to lose out to alternative places that present themselves as a healthier dining choice.

# HEALTH POINT

## BUILDING HEALTHIER FOOD PLACES



### THE COUNTER

Additional health products such as herbal juices and organic vegetables are also provided for purchase in the Health Point. With the health recommendations given by the digital doctor, consumers are offered with products specifically catered for their condition and health needs. It can also be a simple supplementary stall that provides healthy products for the passer-by.
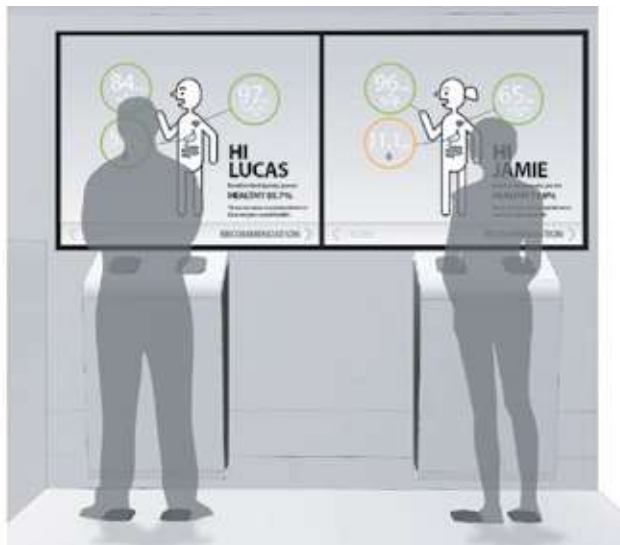


### THE DIGITAL DOCTOR

The health monitoring station is equipped with an interactive interface. It provides real-time tracking of personal health data with the cloud system. Customers can view their health records and health recommendations on their mobile devices.

TOUCHPOINT:  FOOD COURT  HEALTH POINT

ACTIVITY:  EAT  NOTICE  RECEIVED  SCAN  RESULT

attract users'
attention

welcome users and
prepare them

diagnose users

users get reports

EXCERCISE
users work out

KIDS
CORNER

## THE FLOOR PLAN

The complete floor plan shows how an ideal health concept food court could be with the addition of in-door farming units, central salad bar, and a kids corner. It illustrates the flexibility of the concept and how it could be expanded into a full health concept food court that has a complete dining experience with healthy dining in mind.

**CONCEPT 04**

# KPTEAM

**BOOSTING THE JOB MARKET THROUGH A DIGITAL PLATFORM**

An app service design that provides a job matching platform for the kopitiam sector. It connects the job seekers and employers seamlessly with fast and easy search options.

Manpower shortage is one of the most serious issues in the kopitiam sector. There is an increased need to attract workers especially from the younger generation as the current workforce is largely made up by the older generation.

KPTeam is a mobile application designed to be a job matching platform for the kopitiam sector. It aims to address manpower shortages in the current kopitiam workforce by reaching out to the younger generation through a digital platform which the target audience is more familiar with.

The user interface is improved with fast and easy search functions to allow users to customise their selection based on criteria filters such as time, location, and review ratings. This makes job suggestions more accurate and relevant to individual needs. At the same time, stalls who are looking for employees can set up their profile page and post job listings on the platform. Job applications can be effortlessly managed through the application review function. The overall process is online and hassle free.

This is a transparent and fair job hiring channel which both parties, the job seeker and the employer, can review and rate each other.

## BUSINESS OPPORTUNITIES

Mobile apps make the job application process simpler and easier to manage. It builds up a connection between the community and the food stalls and bridges the manpower gap by linking up the right talent to suitable positions. Businesses benefit from this application concept as it creates a manpower resource for the stalls which allows for future growth and expansion.

It presents other business opportunities at the same time when more stalls and business owners register for joint training programmes and skill learning courses. The job market becomes more transparent and active at the same time to allow stalls to focus on their core business which is food service.

## NEEDS SATISFIED

The concept allows businesses to reach out to the younger generation that still remains as an untapped manpower source. The burden of manpower crunch will be lessened which allows for growth and expansion.

## TRENDS & INSIGHTS

Lack of manpower has been highlighted during the research as a major issue in the kopitiam sector. With the high percentage of aged workers currently in the workforce, there is a pressing need to attract the younger generation into the job sector in order to maintain a steady growth and expansion of the business.
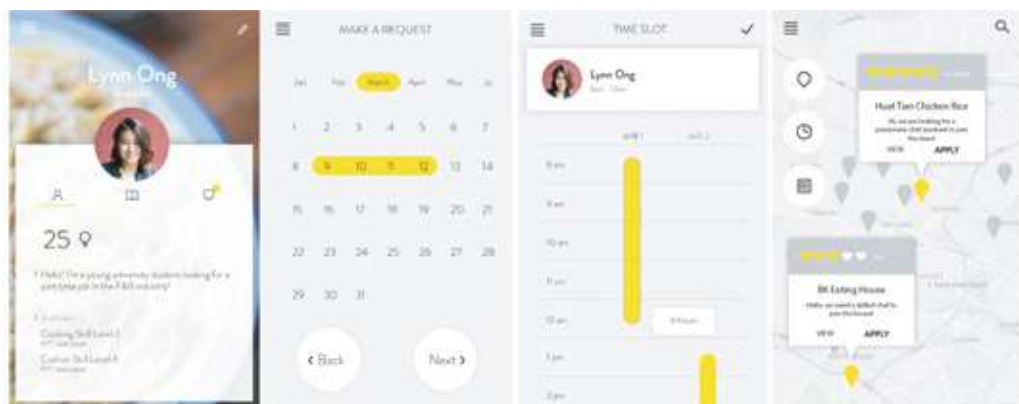
# KPTEAM

## BOOSTING THE JOB MARKET THROUGH A DIGITAL PLATFORM



### FOR JOB SEEKER

For the job seeker, it is easy to set up an account and create a resume. The application allows job seekers give a review after the working stint.



### THE JOB SEARCH FILTER

The search is customisable. It can be based on the job seeker's available time, nearest location or other criteria such as stall ratings and reviews. This makes the search result more accurate and relevant to the users' needs.

Stall profile · Reviewing the job applicants · Sending out the job confirmation · Job review
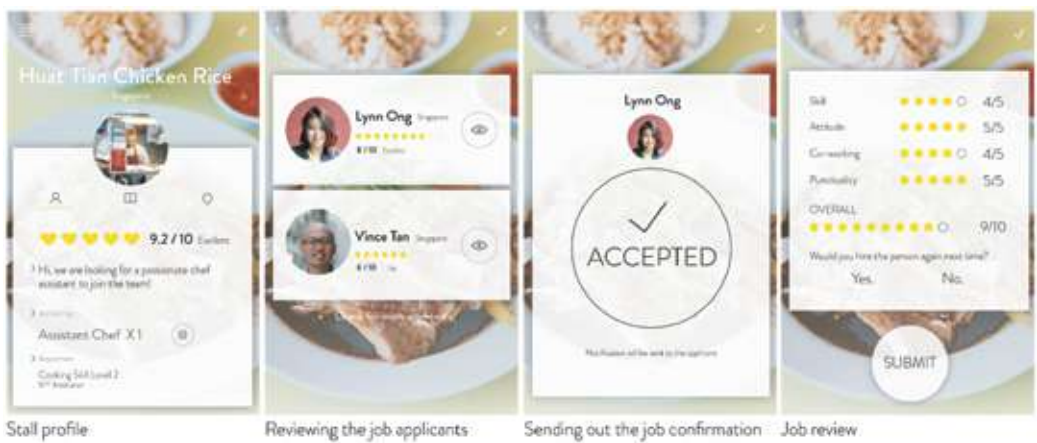
## FOR HIRER

The hirer is able to set up his/her account and start to receive job applications. The app provides a review page for both the hirer and the job seeker after the work period ends. The review is then made public and reflected onto their respective profile pages.

**CONCEPT 05**

# MAGI

**BUILDING AN ADAPTABLE KITCHEN FOR FUTURE OPPORTUNITIES**

The mobile kitchen system design that is based on a modular system concept that combines functionality and flexibility for different user scenarios.

Stall layouts are used by staff on venue and shift rotation. However, they are tailored to the main chefs' needs, resulting in inconsistent layouts that cause unfamiliarity and lower efficiency.

Magi is a modular kitchen concept designed to replace the current stall furniture to create order and consistency to stall layouts. Its flexibility to adapt to various space and user scenarios makes it perfect for the kopitiam environment.

The module is fully expandable into two functional working units including the store front unit and the cooking unit. The store front unit caters to functions including cashiering, store front display, and storage. The cooking unit caters to functions including cooking, food preparation and storage for food ingredients. There are additional interchangeable units for different cooking needs such as grill pans for western food and pots for noodles.

In the event of a stall closing down, the modules can be packed into a single mobile unit and pushed away into the storage room. The stall space is then freed up for other usages such as proving extra seating and dining area. This makes the food court space more adaptable to unforeseen situations.

As the module is flexible and mobile, it could even be used as a food truck or pop-up stalls outside the food court.

## BUSINESS OPPORTUNITIES

The redesigning of the kitchen infrastructure breaks the current norm of having fixed kitchen appliances that can be rigid and less adaptive to new situations. By making the kitchen mobile and flexible the stall space is better used when facing unforeseen circumstances such as stalls ceasing operations, alleviating the adverse effects.

The productivity of the kitchen is improved when the space layout is kept consistent across different venues since the staff are familiar with it.

Other business opportunities come in when the structure is being used as pop-up stalls outside the food court.

## NEEDS SATISFIED

As the design is kept consistent and modular, the staff are easily transferable between different stall outlets which makes the shift rotation more manageable and comfortable. Food court spaces are better utilised even in situations such as stalls ceasing operations.
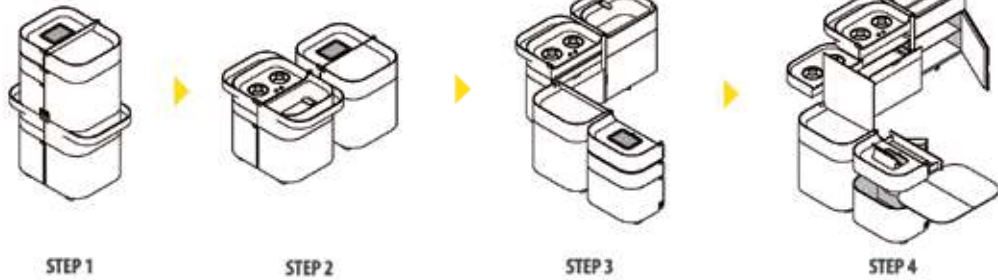
## TRENDS & INSIGHTS

The layout and arrangement of cooking equipment are designed around the main chef's cooking habits and preferences. When other chefs are rotated to the store they often find difficulty in adapting to a completely foreign kitchen layout. This lowers cooking efficiency and may compromise on food quality.
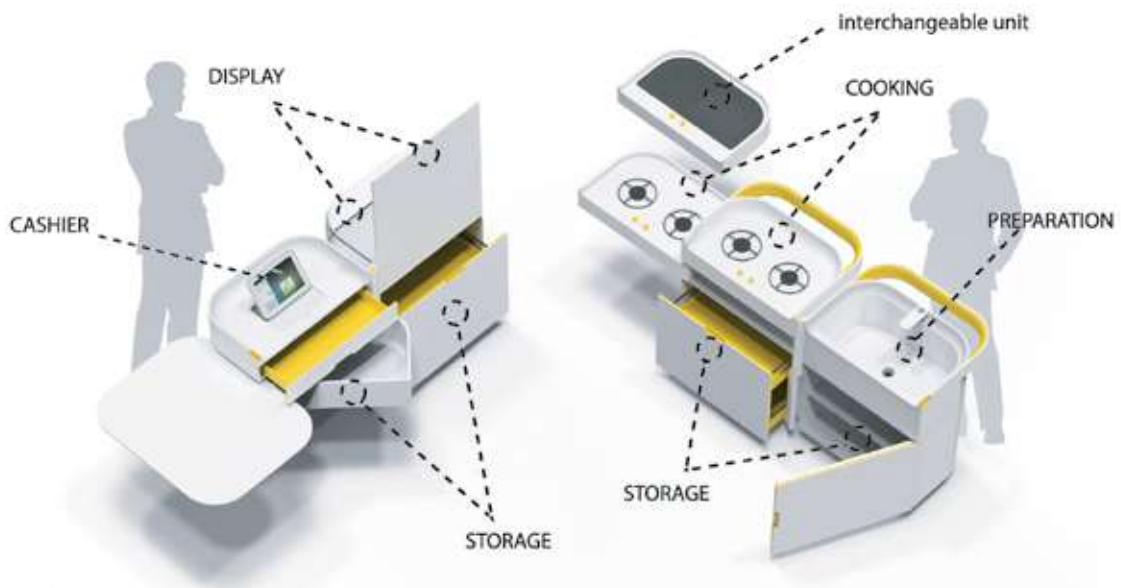
# MAGI

**BUILDING AN ADAPTABLE KITCHEN FOR FUTURE OPPORTUNITIES**

### ▼ THE TRANSFORMATION PROCESS

STEP 1      STEP 2      STEP 3      STEP 4

### ▼ MAGI BOX EXPLAINED

interchangeable unit

DISPLAY

COOKING

CASHIER

PREPARATION

STORAGE

STORAGE

## THE TRANSFORMATION

The MAGI concept features two fully expandable working units for the kitchen in kopitiams, the stall front unit and the cooking unit. Together they form a functional kitchen that replaces current fixed structures. The four-step illustration shows how the box is unfolded from a single unit into a full kitchen by simple actions like rotation and sliding.
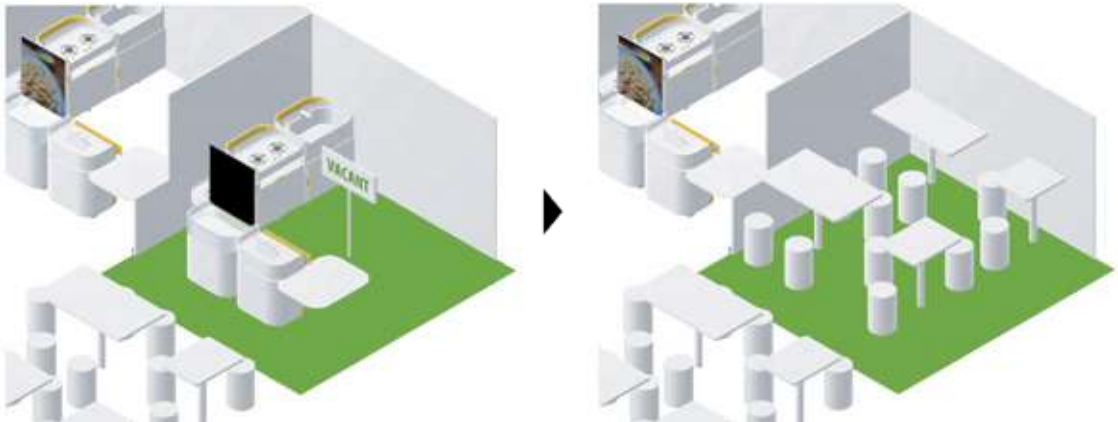
## SPACE CREATION

When a stall becomes vacant, Magi Box can be quickly packed back into box form and stored aside. Additional seating space are created to increase the space efficiency.



## POP UP STORE

Magi Box is highly flexible and mobile. They can form pop up stalls easily, which provides more business opportunities for the stall owners.

**CONCEPT 06**

# EAT, RETURN, REWARD.

**CREATING POSITIVE JOB PERCEPTIONS THROUGH REWARD CAMPAIGNS**

A campaign concept designed to encourage tray return and at the same time help change the job perception of the cleaners with a positive association.

Tray-return has been introduced to kopitiams and food courts for the past years. However, the habit of returning trays have not been picked up. 'Eat, Return, Reward' is a concept designed to encourage the take up of this practice.

It takes years to cultivate a behavioural change. In school canteens, tray-return has been readily adopted by the students and teachers, but it is not practiced commonly in the public food places.

'Eat, Return, Reward' is a campaign concept that could be used as the initiator and catalyst for the picking up of the tray-return habit. Customers who return their trays will be awarded with incentives by cleaners who are now referred to as 'kopitiam ambassadors'. For customers who leave their trays behind, a specially designed token will be placed on the table. The next customer who picks up the token and help return the tray will be given instantaneous rewards by the 'kopitiam ambassadors'.

The nature of the job has given the cleaning staff negative associations as they handle food wastage and dirty tables. This has made job esteem low amongst people who work as cleaners. The concept aims to change the job perception of cleaners and create positive association to their image at the same time.

## BUSINESS OPPORTUNITIES

Tray-return helps reduce the workload of cleaning workers and their cleaning time. Work efficiency is improved. Collection of trays is physically taxing on the aged workforce. Encouraging customers to return their trays could help businesses improve their turnover since the cleaning process is hastened. At the same time changing the job image of the cleaning workers not only helps to raise the job morale but also elevates the overall image of the food court. This could benefit the business in the long run as image and perceptions help shape a stronger brand and brings more customer loyalty.

## NEEDS SATISFIED

Cleaners enjoy a lighter workload as trays are being returned by the customers. Tables are more readily

available for customers when trays are returned immediately after one finishes his/her meal. It alleviates the table scarcity during rush hour in food courts. At the same time, the job image of cleaners are lifted up when there are more positive associations. It improves the job satisfaction and boosts employee morale.

## TRENDS & INSIGHTS

Many F&B staff have low job esteem and do not see value in their jobs. Some perceive their jobs as the last option. This collective lack of pride for the jobs can easily create a negative work atmosphere. This gives rise to a need for a healthier and positive working environment to enable staff to feel confident and pride in what they are doing.

# EAT, RETURN, REWARD.
## CREATING POSITIVE JOB PERCEPTIONS THROUGH REWARD CAMPAIGNS



### THE RECEIPT

Together with the usual transaction records, the new receipt design includes an additional part which allows users to keep as proof. When customers return their trays, 'kopitiam ambassadors' punch a mark on the receipt as acknowledgement. The receipt then serves as a lucky draw entry afterwards.

### THE TOKEN OF KINDNESS

Inspired by the shape of number tags on the tables in kopitiams, the token of kindness is designed to be a friendly reminder of a kind act. When a tray has been left on table, cleaners issue the token to encourage the next customer to help return the tray. A little reward will be given in exchange for the token and the returned tray.

## ❶ ▼ FOR CUSTOMERS WHO RETURN
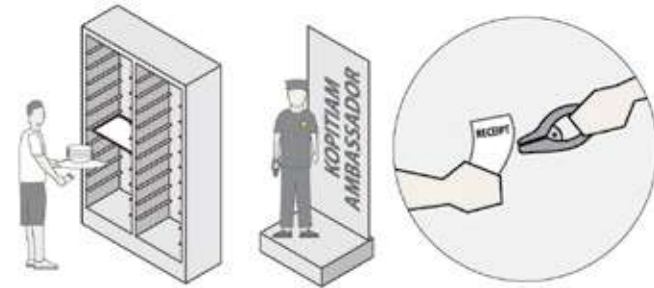


1. Customers return tray.

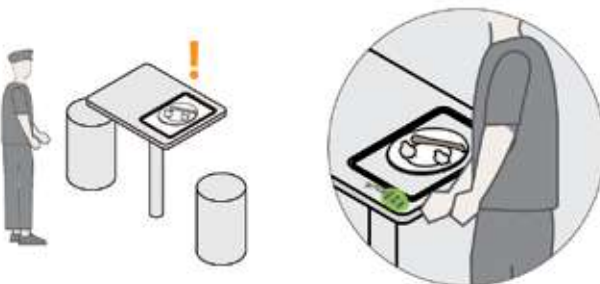2. Customers present the receipt to the 'kopitiam ambassador'.
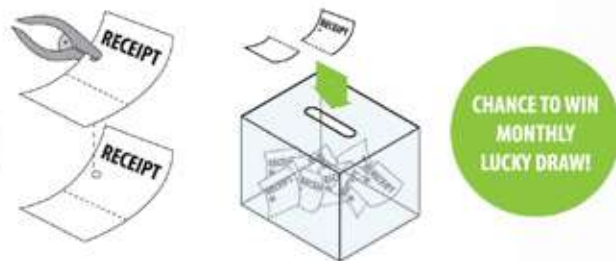


3. The 'ambassador' verifies and punches the receipt.

4. Drop the receipt into the lucky draw box when exiting.

**CHANCE TO WIN MONTHLY LUCKY DRAW!**

### FOR CUSTOMERS WHO RETURN

For those who take the initiative to return trays, they stand a chance to win a lucky draw as a token of appreciation from the food court management. After one returns the tray, he/she presents the receipt to the 'kopitiam ambassador'. This receipt then serves as the lucky draw entry.

## ❷ ▼ FOR CUSTOMERS WHO DON'T RETURN



1. 'Kopitiam ambassador' spots left behind tray.

2. He leaves the token on the table.
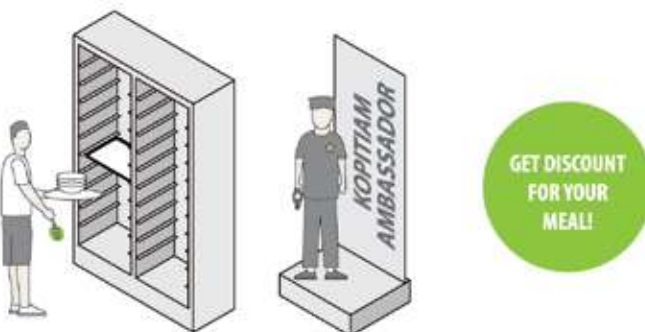


3. The next customer returns the tray.

4. He present the token to the 'kopitiam ambassador' and get discount for his meal.

**GET DISCOUNT FOR YOUR MEAL!**

### FOR CUSTOMERS WHO DON'T RETURN

For customers who leave their tray behind, the kindness token will be issued. The next customer who picks it up and help return the tray will be awarded with incentives when they present the token to the 'kopitiam ambassadors'.

# CREDITS

**DESIGNSINGAPORE COUNCIL**
Agnes Kwek
Cindy Ng
Gan Huey Ying
Jacks Yeo
Jamie Loh
Jeffrey Ho
Lin Weizheng
Marn Lim
Woo Huaijie

**FAST FORWARD THINKING**
Aloysius Koh
Esther Comino
Iban Benzal
Jesús Sotelo
Koh Wei Zane
Maggie Peterson
Mario Soriano
Miguel Jiménez
Miguel Magaña

**IDEACTIO & IPSOS**
Haraldur Már Unnarsson
Iris Tan Ai Li
Lim Si Hui
Nav Qirti
Poh Yong Wee, Bernard
Reima Rönnholm

**NEXTOFKIN CREATIVES**
Adriane Lee
Anthea Tay
Cheong Tong Pei
Kwa Liying
Lee Changtat
Li Yushan
Marisa Goh
Rodney Loh
Yu Yue

# MOVING FORWARD

You have seen how a user-centred design approach can result in solutions which provide possibilities of raising productivity in F&B businesses.

Regardless of your role in the F&B industry, you can take the following steps if you are keen on creating innovative products and services to tackle productivity challenges.

**1. If this book addresses your current business challenges:**

**a. As a starting point**
Utilise the findings which are relevant to your business as a starting point to create user-centred solutions. The personas, opportunities and design solutions presented in this book can serve as inspiration or tools to generate ideas which are more aligned to the requirements of your organisation and users.

**b. Adopting the design solutions immediately**
Start off with adapting and customising the solutions to your business needs and customers. Then, test out prototypes with your target users and materialise them with in-house capability or through external design consultancy.

**2. If you wish to adopt design-driven innovation in your organisation:**

**a. Understand your target users through design ethnography**
Run ethnography studies to gain a deeper understanding of your user's behaviour and latent needs. You can do so independently or with the help of a specialist design consultancy.

**b. Explore new concepts based on user insights**
By utilising the outcomes from the ethnography study and adopting an empathetic mindset, it can help you develop innovative concepts of products and services which users desire. This exploratory phase can be conducted through workshops with aid from design-driven innovation facilitators.

**c. Test the feasibility of the concepts**
Prototype the concepts, test their usability with your target users and refine them based on feedback given. Then develop them into actual products and services that resonate with your business needs and customers.

# ABOUT US

The vision of the DesignSingapore Council is for design to differentiate Singapore from global competition. As the national agency for design, the Council's mission is to develop the design sector, help Singapore use design for innovation and growth, and to make life better. The DesignSingapore Council is part of the Ministry of Communications and Information.

www.designsingapore.org

Fast Forward is a strategic foresight and future anticipation consultancy that helps organisations to use creative intelligence and unveil a set of near future scenarios that are both feasible, desirable and profitable.

We use consumer, user, stakeholder and market qualitative analysis tools. Our findings are backed using big data and machine learning algorithms to add quantitative reasoning to qualitative information, helping us to better predict the future, anticipate change in industries and deliver solutions that outperform markets.

We create future value, starting today.

www.ffwd.is

# ideactio

Ideactio is a Singapore-based business & design consultancy rooted in design thinking principles. It enables companies to employ innovation as a critical driver for sustained business growth and co-creates human-centred solutions with clients. It has worked with clients ranging from public sector institutions to SMEs in industries including F&B, retail, education, travel, and entertainment.

www.ideactio.com

Ipsos Business Consulting uses fact-based market analysis to help domestic and international organisations and businesses build, compete and grow. The only global market research agency to offer an integrated business consulting division, Ipsos serves clients worldwide through 19 offices, including top businesses, government sectors, and institutions.

http://ipsos.com.sg

NextOfKin Creatives is an industrial design firm based on the twin spirits of breakthrough thinking and building bonds. Located in Singapore, the team strives for differentiated designs that changes the way consumers perceive, interact and behave around products. Founded in June 2007 by Rodney Loh, the team foster changes and takes a strategic approach that focuses on user experience and emotional connection, and have won numerous awards including Red Dot, iF and Good Design Awards.

www.nextofkincreatives.com

# BIBLIOGRAPHY & REFERENCES

**1**.  Nestle, M., Wing, R., Birch, L., Disogra, L., Drewnowski, A., Middleton, S., . . . Economos, C. (1998, May 1). Behavioral and social influences on food choice. Nutrition Reviews, 56(5), 50-64.

**2**.  Data dive: Mapping the cuisines of china | Food Tech Connect. (2013). Retrieved September 16, 2015, from http://www.foodtechconnect.com/2013/08/02/data-mining-mapping-the-cuisines-of-china/

**3**.  Do apps have a seat at the dining table? (n.d.). Retrieved September 16, 2015, from http://www.gravitytank.com/ blog/nra_2015

**4**.  Fox, R. (n.d.). Food and eating: An anthropological perspective. Oxford, UK: Social Issues Research Centre.

**5**.  FoodMood measures global food sentiment | Food Tech Connect. (2012). Retrieved September 17, 2015, from http://www.foodtechconnect.com/2012/06/20/foodmood-measures-global-food-sentiment/

**6**.  Health, joy, ease: All food cooks down to 3 consumer values. (n.d.). Retrieved September 17, 2015, from http://www.gravitytank.com/blog/hje2015

**7**.  Maly, T. Massive health iPhone app gets you to eat better, using the crowd's IQ. Retrieved September 17, 2015, from http://www.fastcodesign.com/1665700/massive-health-iphone-app-gets-you-to-eat-better-using-the-crowds-iq

**8**.  Fjellström, C. (2004). Mealtime and meal patterns from a cultural perspective. Scandinavian Journal of Nutrition, 48(4), 161-164.

**9**.  Product roadmap: How restauranteurs can establish dynamic R&D models | Food Tech Connect. (2013). Retrieved September 17, 2015, from http://www.foodtechconnect.com/2013/11/15/product-roadmap-how- restauranteurs-can-establish-dynamic-rd/

**10**.  Restaurant tech trends: Streamlined payment apps, on-demand explodes more | Food Tech Connect. (2015). Retrieved September 17, 2015, from http://www.foodtechconnect.com/2015/06/09/restaurant-tech-trends-streamlined-payment-apps-on-demand-food-delivery-explodes/

**11**.  Hetherington, M., Anderson, A., Norton, G., & Newson, L. (2006). Situational effects on meal intake: A comparison of eating alone and eating with others. Physiology & Behavior, 88(4-5), 498-505.

**12**.  Morris, D. (n.d.). Social and cultural aspects of drinking. A report to the European Comission. Oxford, UK: Social Issues Research Centre.

**13**.  The abrupt and sudden end of restaurant quality | Food Tech Connect. (2013). Retrieved September 18, 2015, from http://foodtechconnect.com/2013/09/16/the-abrupt-and-sudden-end-of-restaurant-quality/

**14**.  The flavor connection [Interactive]. (n.d.). Retrieved September 18, 2015, from http://www.scientificamerican.com/article/flavor-connection-taste-map-interactive/

**15**.  Pollan, M. Voting with your fork. Retrieved September 18, 2015, from http://pollan.blogs. nytimes.com/2006/05/07/voting-with-your-fork/?r=0

**16**.  Seeds of disruption. How technology is making the future of food. (2013). Institute For The Future.

**17**.  Forecast perspectives. Remaking food experiences. (2013). Institute For The Future.

**18**.  Convenience. Rethinking shopping. (2013). Institute For The Future.

**19**.  Freshness. Quantifying peak flavors. (2013). Institute For The Future.

**20**.  Satisfaction. Personalized cravings. (2013). Institute For The Future.

**21**.  Sustainability. Sourcing mindfulness. (2013). Institute For The Future.

**22**.  Infographic of the week: Tech to the rescue for allergy Sufferers | Food Tech Connect. (2013). Retrieved September 21, 2015, from http://www.foodtechconnect.com/2013/08/23/ infographic-of-the-week/

**23**.  Infographic of the week: The rise of gluten-free | Food Tech Connect. (2014). Retrieved September 21, 2015, from http://foodtechconnect.com/2014/02/21/infographic-week-rise- gluten-free/

**24**.  Infographic of the week: The shocking effects of artificial food dyes | Food Tech Connect. (2013). Retrieved September 21, 2015, from http://www.foodtechconnect.com/2013/11/22/ infographic-of-the-week-the-shocking-effects-artificial-food-dyes/

**25**.  Infographic of the week: Why restaurants are investing in mobile payments & marketing | Food Tech Connect. (2014). Retrieved September 21, 2015, from http://www. foodtechconnect.com/2014/05/16/infographic-restaurants-mobile-payment-marketing- adoption-trends/

**26**.  Infographics of the week: What 7.68 million food ratings tell us about our eating habits | Food Tech Connect. (2012). Retrieved September 21, 2015, from http://www.foodtechconnect. com/2012/04/19/infographics-of-the-week-what-7-68-million-food-ratings-tell-us-about- our-eating-habits/

**27**.  Massive Health analyzes how healthy we think we eat [Infographic] | Food Tech Connect. (2012). Retrieved September 21, 2015, from http://www.foodtechconnect.com/2012/04/19/ massive-health-analyzes-how-healthy-we-think-we-eat-infographic/

**28**.  Knowlton, A. (n.d.). 13 food world predictions for 2015 from Andrew Knowlton. Retrieved September 23, 2015, from http://www.bonappetit.com/columns/the-foodist/article/foodist- 2015-predictions

**29**.  The Whiteman Report. (2014). New York City, NY: Baum Whiteman.

**30**.  5 London food trends to keep an eye on in 2015. (2015). Retrieved September 23, 2015, from http://www.highsnobiety.com/2015/07/16/5-london-food-trends-for-2015/

**31**.  La comida online, un territorio fértil para los emprendedores. (2015). Retrieved September 23, 2015, from http://cincodias.com/cincodias/2015/09/14/emprendedores/1442221459_106136.html

**32**.  Our 10 food trend predictions for 2015. (n.d.). Retrieved September 23, 2015, from http://www.bbcgoodfood.com/howto/guide/top-10-food-trend-predictions-2015

**33**.  Carus, F. (2010). UN urges global move to meat and dairy-free diet. Retrieved September 23, 2015, from https://www.theguardian.com/environment/2010/jun/02/un-report-meat-free-diet?CMP=share_btn_fb

**34**.  Weil, A. (2015). Why I Cook. Retrieved September 23, 2015, from https://medium.com/@DrWeil/why-i-cook-a9d35f2861d

**35**.  Bobb, B. (2015). Anonymous Instagram Chef Jacques La Merde re-creates Noma's famous dishes using Doritos, Velveeta, and ¨Vienna Beef Tartar¨. Retrieved September 23, 2015, from http://www.vogue.com/13354314/food- instagram-chef-jacques-la-merde-noma/

**36**.  Foodpairing: Discover Exciting Pairings. (n.d.). Retrieved October 20, 2015, from http://www.foodpairing.com/en/home

**37**.  Servy - Restaurant Mystery Dining, Secret Shopping and Private Customer Feedback. (n.d.). Retrieved October 22, 2015, from http://www.servyapp.com/

**38**.  Chef Watson with Bon Appétit. (n.d.). Retrieved October 23, 2015, from http://www.ibmchefwatson.com/

**39**.  Culinary Agents. (n.d.). Retrieved October 22, 2015, from http://www.culinaryagents.com/

**40**.  Our food. Your questions. :: McDonalds.ca. (n.d.). Retrieved October 20, 2015, from http://yourquestions.mcdonalds.ca/

**41**.  BlueCart | Ordering Made Simple. (n.d.). Retrieved October 21, 2015, from http://www.bluecart.com/

**42**.  Online Ordering for Restaurants | Mobile Ordering | Olo. (n.d.). Retrieved October 23, 2015, from http://www.olo.com/

**43**.  Get in Line at Restaurants From Anywhere, Without Reservations. (n.d.). Retrieved October 21, 2015, from http://www.nowait.com/guests/

**44**.  Rapid Prototyping, Advance Digital Manufacturing, 3D Printing, 3-D CAD | 3D Systems. (n.d.). Retrieved October 21, 2015, from http://www.3dsystems.com/

**45**.  Poursteady. (n.d.). Retrieved October 20, 2015, from http://www.poursteady.com/

**46**.  Meijers, N. (2016). 10 Startups Reducing Food Waste One Byte At A Time |. Retrieved October 20, 2015, from http://foodtechconnect.com/2015/10/09/10-startups-reducing-food-waste-one-byte-at-a-time/

**47**.  OpenTable. (n.d.). Retrieved October 21, 2015, from http://www.opentable.com/

**48**.  Reserve: Restaurant Reservations and Recommendations. (n.d.). Retrieved October 23, 2015, from http://www.reserve.com/

**49**.  TabbedOut: Pay With Your Phone. (n.d.). Retrieved October 23, 2015, from http://www.tabbedout.com/

**50**.  Crunchbutton: One Click Food Ordering. (n.d.). Retrieved October 20, 2015, from http://www.crunchbutton.com/

**51**.  Grain: Delightful Food Delivery in Singapore. (n.d.). Retrieved October 22, 2015, from http://www.grain.com.sg/

**52**.  MealPal. (n.d.). Retrieved October 22, 2015, from http://www.mealpal.com/

**53**.  Enjoy Good Food With Good Company. (n.d.). Retrieved October 20, 2015, from http://www.supperclubapp.com/

**54**.  Plated: Dinner That Perfectly Fits Your Life. Everything You Need, For The Recipes You Choose, Delivered. (n.d.). Retrieved December 23, 2016, from http://www.plated.com/

## COPYRIGHT ACKNOWLEDGEMENTS