

Applicability of Green “Gemba” Management to the Restaurant Business in HKSAR & Mainland China for Sustainable Development

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ABSTRACT

Based on the PhD Dissertation Paper “Application of Green Gemba Management to the Restaurant Business in Hong Kong & Mainland China for the Sustainable Development” in 2014 to NEUST, there comes opportunities for authors to test out and verify the model in some restaurants who are applying both Green 5-S Model (both 5-S and Lean 5S, each has 50 points checklists) in Hong Kong and China Mainland. As a result, the aim of this paper is to share the experience of the Green 5-S Model applied to Restaurant Business for Sustainable Development since 2012. Moreover, the Hong Kong 5-S Association established since 1999 and by then till today, has trained close to 300,000 people the Green 5-S model, and such model has been sustained in over 200 organizations via both certification and surveillance auditing in HK & Mainland China. The experience will be shared in this article.

Keywords: Green Gemba Management, Restaurant Business, Sustainable Development

1. Introduction

Historically, dining has been important in Chinese society. This is well-known by two very famous saying “Dressing, Dining, Living & Walking” (衣、食、住、行) and also “People consider Dining as high as their priority” (民以食为天), reflecting that dining has become a key part in day-to-day living. Therefore dining does not only affect what people eat, or how they eat, actually Restaurant Business is also a significant sector that offer business interactions, careers as well as jobs to large number of people, and also the support of their families.

According to 2012 official information in China mainland (Ministry of Commerce PRC) and Hong Kong (Food & Environment Hygiene Department), there are over 2,500,000 restaurants enterprise, and the related revenue has been sum up close to RMB1,700 billion (USD218 billion) in Mainland China alone. In Guangdong, the province closest to Hong Kong, it already has over 200,000 hotels or restaurants per the 2012 information from Guangdong Stats Network (www.gdstats.gov.cn). Therefore how people operate in the Restaurant Business is really relevant to the survival of the restaurants.

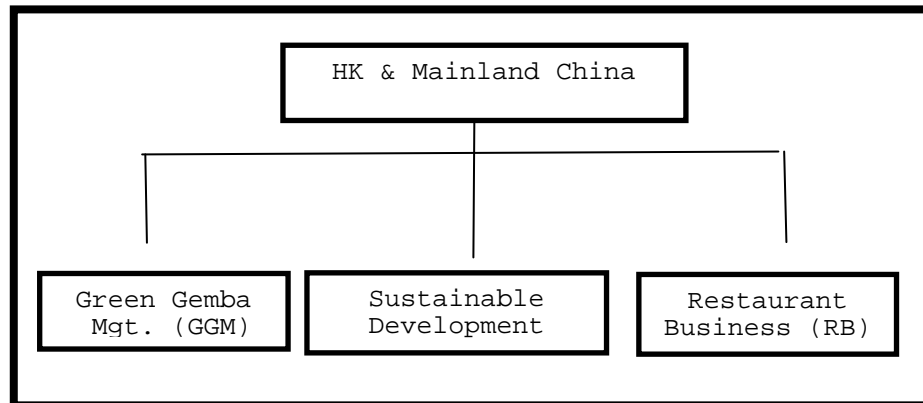
Hence, here comes a 3-tier focuses that that needs clearly elaborated before model application:

- **Green “Gemba” Management (GGM)** – “Gemba” (a Japanese word means Workplace in English) Management has been originated from Toyota Production System TPS (Ohno, 1998). It is an integrated system approach comprise of Ohno’s philosophy on management and practise. It stated that most of the problems happened internally like inconsistency in the workplace and should be fixed or improved asap in the workplace before the problems overburden to other areas. Moreover, when facing external political, social or economic challenges, “Green” factors, mostly lean operations and wastage reduction added to above, where Man, Machine, Material & Method are blended together to enhance **quality, cost saving, environmental & delivery** efficiency, aiming for survival and then profit improvement, and even further business enhancement.
- **Sustainable Development (SD)** – Such concept has it roots in forest management in the 12th~16th century. Recent widely recognized to be the “development that meets the needs of present without compromising the ability of future generations to meet their own needs” (UN

WCED, 2011). In this paper, **business expansion**, headcount increase and immunity towards price increase are used as indicator for sustainable development.

- **Restaurant Business (RB) in HK & Mainland China** – the restaurants business of the two geographical areas have their similarities and difference. Various challenges that the restaurants are facing today, and which **corresponding strategies and measures** the restaurants are taking to fight for their survivals, together with the business plans in coming futures.

The overall relationship is graphically presented in **Figure-1**.



2. From 5-S to Green 5-S (5-S + Lean 5S)

2.1 The 5-S Practice

Over the last century, the Japanese have formalised the technique and name it as the 5S (#) Practice (Osada, 1991). Prof. Sam Ho has improved and defined its terms in English and developed the world's first “5-S Audit Checklist” in 1993. The above 5S Practice is originated from Japan inline with their national culture, but without a clear method to explain "HOW" it can be executed. Prof. Sam Ho has improved and defined its terms in English/Chinese and developed the world's first 5-S Audit Checklist (**Appendix-1**) which was used for training in Malaysia under an Asian Development Bank **Quality Expert** assignment in 1993-94 at **SIRIM** in Malaysia. Many examples have been seen how such checklist is well applied in various industry sectors: MANUFACTURING, FOOD & BEVERAGE, CONSTRUCTION, HEALTHCARE, SERVICES, EDUCATION and PUBLIC UTILITIES.

As differentiated from the Japanese ‘5S’, the one created in this paper is named as ‘5-S’.

In 1998-2000, a US\$600,000 grant from Hong Kong Government was given to set up the *Hong Kong 5-S Association (HK5SA)*, and to train up 2,500 5-S Lead Auditors in Hong Kong. Till now, close to 30,000 people have been trained in Hong Kong, with over 8,000 organisations globally, many of which have been certified as the 5-S Registered Organisation.

Japan 5S	SIRIM 5-S *	SIRIM 5-S in Malay **	五常法 *	50-pts. *	Typical Example * (from the 50-pts.)
<u>S</u> eiiri	<u>S</u> tructurise	<u>S</u> truktur	常組織	10	Throw away rubbish & return to store
<u>S</u> eiiton	<u>S</u> ystematise	<u>S</u> istematik	常整頓	10	30-second retrieval of a document
<u>S</u> eiiso	<u>S</u> anitise	<u>S</u> anitis	常清潔	5	Individual cleaning responsibility
<u>S</u> eiiketsu +	<u>S</u> tandardise	<u>S</u> tandard	常規範	15	Transparency of storage & Fool-proof
<u>S</u> hitsuksuke	<u>S</u> elf-discipline	<u>S</u> entiasa disiplin-diri	常自律	10	Do 5-S daily & 5-S Audit

+ Original meaning ‘Cleanliness’, has been replaced with ‘Standardise’.

* 5-S in Chinese and have to do it always

** redefined by the authors in 2011 for Malay version.

2.2 Lean 5S, a Quantitative Measurement

In 2006, with the help of Mr. Masaaki Imai, Founder of the Kaizen Institute, Prof. Sam Ho has developed yet another Audit Checklist named 'Lean 5-S'. Together with the 5-S Checklist, HK5SA has adopted it as the I5SO (International 5-S Organization) Green 5-S (I5SO-G5S) Audit Checklist and promoted it since Jan 2011, in line with the go-GREEN Policy in the world.

Kaizen Institute (Founded by Mr. Masaaki Imai, the key consultant for the Lean Production System at Toyota) and the HK 5-S Association (Founded by Prof. Sam Ho) have created a unique consulting approach to **diagnosis of Lean Status** to assist top management in taking such initiatives. The diagnosis consists of the following steps:-

- Step 1:** Prof. Sam Ho has developed the road map to lean criteria and it will be explained during the diagnosis.
- Step 2:** The corporate financial standing can be assessed by the bottom line in the financial reports and Management should make every effort to improve it. Unfortunately, in most enterprises, such standards are not available to assess the current **lean status** of the operation system.
- Step 3:** Where there is no standard, there can be no assessment. **L5S** can help top management to know where it is on the journey to the world class and set the target for the next step.
- Step 4:** This approach has already been practiced in many companies and has left profound impacts on the minds of top management.

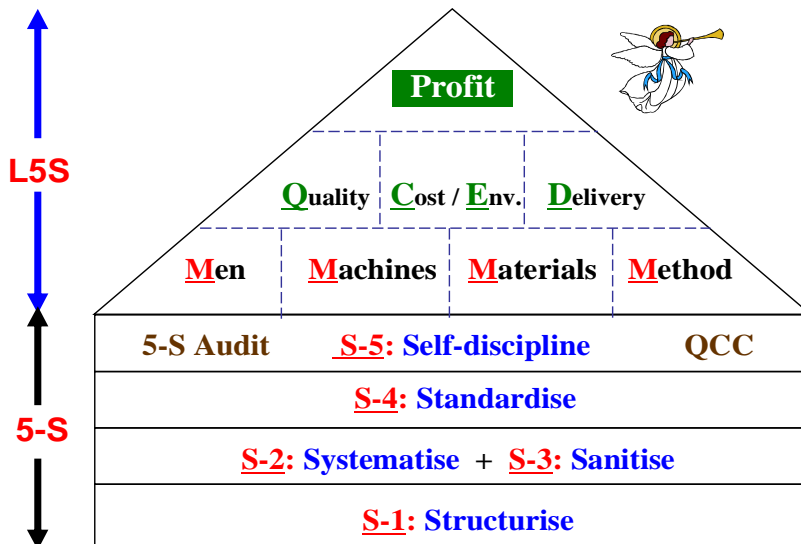
Synopsis: 10 Operations and 5 Steps Approach (see [Appendix-2](#))

L1:	Product/Process Design	= +10% (increase of SALES)
L2:	Forecasting	= +10%
L3:	Men & Materials	= -10% (reduction of COST)
L4:	Utilities & Tax	= -20%
L5:	5-R on Machines/Material	= -10%
L6:	Machine TPM	= -10%
L7:	Flow Method	= +10%
L8:	Quality Management	= -10%
L9:	Stock Control	= -10%
L10:	Floor and Space	= +10%

Overall Target: Sales → +10% Costs → -10%

2.3 The Green 5-S Model (Lean 5S stacks on 5-S)

I5SO-HK5SA Green 5-S (G5S) Mgt. Model (G5S = 5-S + L5S)



The Green 5-S (= 5-S + L5S, by Ho 2003) standard created by the International 5-S Organisation (I5SO) jointly with the HK 5-S Association (HK5SA). 5-S is the 'base' of the pyramid and is 'static'. L5S is the pyramid itself and is 'dynamic'.

- The objectives of the 5-S practice are: Safety, Hygiene, Quality, Productivity & Image
- The objectives of the L5S practice are: Quality, Environment, Cost & Delivery
- L5S can only be practices after a good 5-S implementation.

3. Research Findings on the "Applicability of Green "Gemba" Management to the Restaurant Business in HK & Mainland China for Sustainable Development

The aim of this research is to "*Investigate into the applicability of Green "Gemba" Management to the Restaurant Business in HK & Mainland China for Sustainable Development*". Total of 900 sets of 7-points scale survey questionnaire (**Appendix-3**) were sent out (Guangdong 600 + Hong Kong 300) via email, 60 responses were received and analysed using the statistical tool SPSS-14 software computer program. Various statistical methods of testing for significant difference in samples were adopted to carry out the analysis of the data received. Statistically speaking, the 60 respondents agreed with most of the questions inside.

This research study sought answers to the following Research Questions (**RQ**):-

- 1: What are the GGM issues that are pertinent to the Restaurant Business (RB) in HK & Mainland China? (**RQ-1**)
- 2: What are the elements of GGM contributing to Sustainable Development (SD)? (**RQ-2**)
- 3: What are the relationships between GGM, SD and RB in HK & China? (**RQ-3**)

The importance of the study is that it will identify the GGM factors which are essential to SD of RB in HK & Mainland China. The GGM Model (GGMM) developed will also help restaurants to cope with the highly dynamic RB environment in HK & Mainland China. Moreover, with proper use of the Model, a RB can perform better than their counterpart, and hence SD.

As well, it will come up some suggestions to the Restaurant Business the followings:

- To the restaurant owners on how to adopt and adapt the best strategies of GGM for the SD of their restaurants;
- To the restaurant managers on how to select better tactics for the success of their operations;
- To the restaurant frontline personnel on how to implement the GGM which are pertinent to the restaurant's operating business environment; and
- To the society at large on how to save the world through SD for the restaurant business which consumes a lot of natural resources.

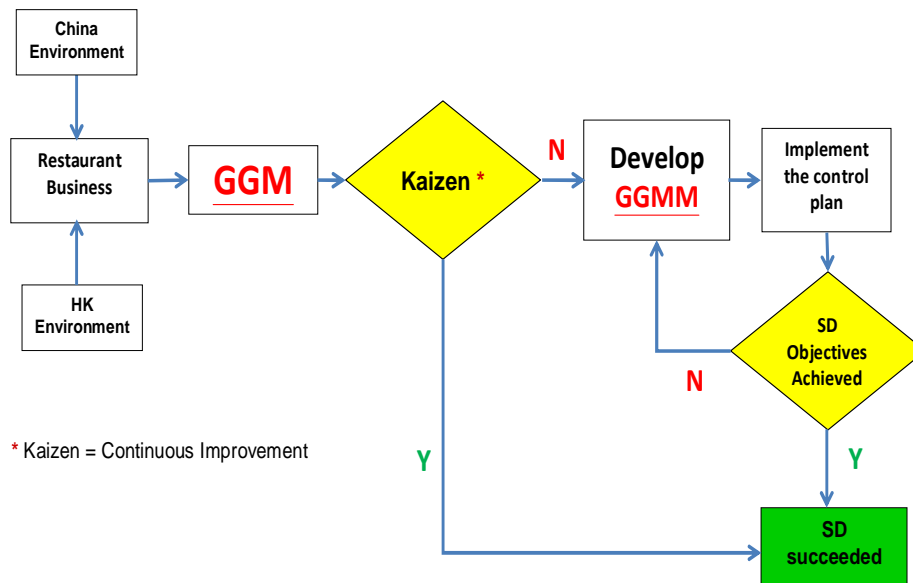
However, due to time, resources and other constraints, the following limitations of the research study are identified:

- As Mainland China is so big geographically, it is difficult to collect all related information from different parts of the nation. Hence the researcher takes Guangdong, the closest province to Hong Kong to reference as Mainland China where information collection and participant contacts would be relatively easier. The research will be continued where time and resources are sustainable to different part of Mainland China (eastern, northern & western) with both broader & deeper findings.
- Large portion of target participants are reluctant to give response.
- Due to conservative nature of RB, only one in-depth interview was carried out
- Due to the limited scope of this project research, some of the statistical data collected cannot be fully utilised in the analysis and should be further investigated in the future research work.
- Difficult in identify whether the RB respondents are really profitable as they are not willing to open up their account books due to sensitive tax issues.

The following Hypothesis are proposed in the research:

- H_{1,0}: GGM is NOT applicable to SD
- H_{2,0}: GGM can NOT be applied to RB in HK
- H_{3,0}: GGM can NOT be applied to RB in China Mainland
- H_{4,0}: GGM can NOT ensure SD for RB in HK & China Mainland

Whereas they are simulated into the following model:



Using statistical quantitative analysis, the findings are as follow:-

RQ-1: What are the GGM issues that are pertinent to the RB in HK & Mainland China?

The findings under the t-Test, Correlation Testing & ANOVA have proven that the following leading questions are essential for GGM development for RB in HK and Mainland China for SD, whereas (A1~6) are the questionnaires to test if the RB are facing various big challenges.

- A1: The recent “Lean Policy” required by the Mainland China Government **has seriously reduced RB business**
- A2: It is very difficult to recruit staff due to the **shortage of workers**
- A3: The new ‘Labour Law’ has significantly **raised the operating cost**.
- A4: Due to the rising cost of water, electricity & gas, the **profit margin has dropped** considerably.
- A5: Due to the further **strict environmental control** measures, the operating cost has gone up considerably.
- A6: Dining customers are very **sensitive to the rising price** and as a result, RB have lost them considerably.

RQ-2: What are the elements of GGM contributing to Sustainable Development (SD)?

Similarly, the following leading questions are essential for the elements contributing to the RB in HK & Mainland China for SD, and (B1~C10) are questionnaires leads to where GGM are practically applied in place.

- B1: Materials are always stocked according to **High/Medium/Low usage**. (5-S: S1.2)
- B2: Everything has a ‘Name’ and a ‘Home’ to facilitate **30-second retrieval**. (S2/10)
- B3: **Hiding places** like stove floor, air-ducts, refrigerator edges are cleaned weekly. (S3.3)
- B4: **Use of colour-coding** for storing raw meat, cooked meat and vegetables in refrigerators. (S4.9)
- B5: Assign **3rd party audit** to ensure that 5-S is implemented continuously (S5.9)
- C1: Use **Blue Ocean Strategy** to design special menu to attract your customers. (Lean 5S: L1.2)

- C2: According to the **demand** at different timing, produce the appropriate products and services as required. (L2.1)
- C3: According to the ability and the need of the business, organize scheduling and posting of **manpower**. (L3.1)
- C4: **Save water, electricity and gas expenses** is important. (L4)
- C5: **Re-use** materials and water in order to achieve saving. (L5)
- C6: Our employees know how to care about the facilities in order to **minimise maintenance costs** (L6)
- C7: Use Machine to replace Manual work as far as possible in order to improve **productivity** (e.g., use machine to defrost). (L7.2)
- C8: Have many standard operating instructions in place to **minimise errors** and the associated cost. (L8.1)
- C9: Use a lot of shelving and plastic boxes for storage in order to **maximise the use of space** and hence save rental cost. (L10.2)
- C10: Use Questionnaire to find out the **‘Satisfaction Levels’ of our customers** and make the necessary improvement. (L10.5)

RQ-3: What are the relationships between GGM, SD and RB in HK & Mainland China?

The following leading questions are essential for establishing the relationships between RB, GGM & RB in HK & Mainland China, and questionnaires are those implying whether the owners are confident in good future and expand, hence lead to sustainable development.

- D1: RB are planning to **increase our manpower** in the coming 1-6 months.
- D2: RB are planning to **increase our prices** in the coming 1-6 months.
- D3: RB are planning to **open new branches** in the coming 6-12 months.

4. The GGM Index

Results of the 60 respondents to most of the significant questionnaires have an Overall Mean Value = **5.57** and can be used as a yardstick. In other words, **GGMI = 5.6** (round-off figure) is the **GGM Pass Mark** for RB in HK & Mainland China. The use of the 60 respondents as the peer group for GGM excellence standard is justified, as the Researcher has over 20 years of solid lean management experience, (see CV in **Appendix-D**). As a result, the respondents in this research are carefully selected for those with outstanding GGM experience only. Therefore, their response to the questionnaire can be used as a yardstick for the measurement of GGM.

Of course, the higher the Value towards the maximum of 7, the higher the GGM. In order to achieve higher value, the interested individual should review the 21 questions and ensure that they are improving on all aspects!

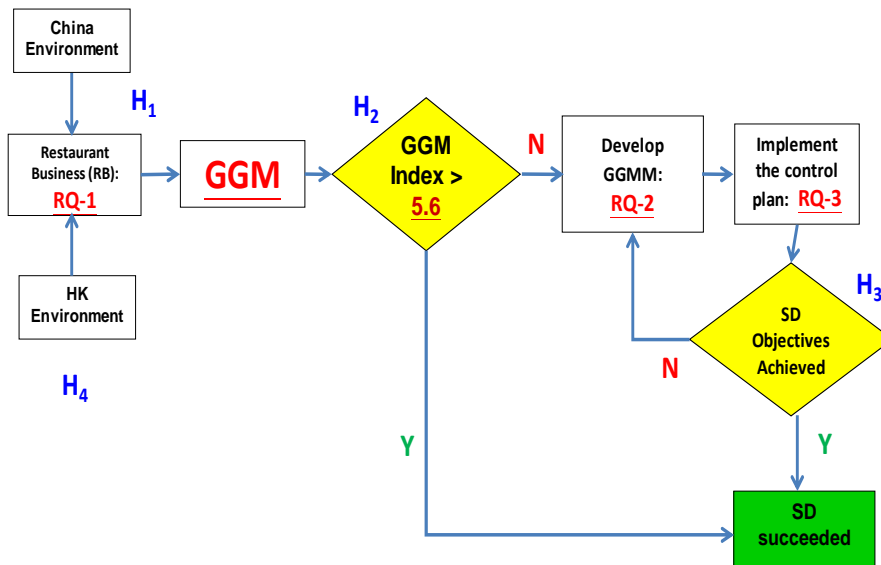
5. Conclusion

This research has identified the RB & SD which are essential to GGM. This in term affects the lifelong development of people at work in RB. The GGM Model will also help RB Owners to assess themselves in terms of their RB, and be prepared to rectify and improve them in order to ensure SD.

Proper use of the research finding will contribute to the following related fields:

- To the restaurant owners on how to adopt and adapt the best strategies of GGM for the SD of their restaurants;
- To the restaurant managers on how to select better tactics for the success of their operations;
- To the restaurant frontline personnel on how to implement the GGM which are pertinent to the restaurant’s operating business environment; and
- To the society at large on how to save the world through SD for the restaurant business which consumes a lot of natural resources.

As a result of the above finding, the Research Model is revised as the ‘Validated GGM Model’ as shown below.



The Validated “GGM Model for RB in HK & China” with GGM-Index@5.6

Also Hypothesis testing results would become:

H_{1,1}: GGM is applicable to SD

H_{2,1}: GGM can be applied to RB in HK

H_{3,1}: GGM can be applied to RB in Mainland China

H_{4,1}: GGM can ensure SD for RB in HK & Mainland China

6. Recommendations

From the conclusions drawn above and due to the limitation of this research work on this topic, some further research works are strongly recommended and further investigation is required for the following items.

- To investigate the level of GGM for RB in HK & China;
- To investigate whether the current RB should be reviewed in order to adopt and adapt to contemporary RB in HK & Mainland China;
- To investigate whether GGM & SD have correlation with development in restaurant business in HK & Mainland China.
- Further identify if particular RB who applied the GGMM and good results have been achieved. The more we can find, the more to prove the GGMM is good to the industry.

App. 1: The 5-S® Audit Checklist (ver.13; Jan 2013)

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5-S	What (every audit needs to be accompanied with a digital photo of around 1MB resolution, landscape, with date)	Where	How (/X)	Who	When
S-1: Structurise					
1.1	Throw away/return things which are not needed (>1-year)				
1.2	3-R: Reduce, Re-use, Re-cycle & paperless, etc.				
1.3	“Needed things” stored: low, medium & high usage				
1.4	Personal belongings kept to the minimum				
1.5	Treat defects, leakage, breakage and their causes				
1.6	One-is-best #1:Daily “Things-to-do” List				
1.7	One-is-best #2: one set of tools/stationery/1-page form				
1.8	One-is-best #3:one hour meeting (be concise)				
1.9	One-is-best #4: one stop service for customer				
1.10	One-is-best #5: one location for files, server & material				
S-2: Systematise					
2.1	Everything has a clearly designated name & place				
2.2	Every place should have a ‘responsible person’ label				
2.3	Security on doors and cabinets and key management				
2.4	Functional placement for leaflets, tools and material				
2.5	Filing standards and control master list				
2.6	First in, first out arrangement (always left in, right out)				
2.7	Zoning, placement marks, signage and badges				
2.8	Neat notice boards (including zoning and labels)				
2.9	Easy-to-read notices (include expiry date)				
2.10	30-second retrieval of tools, document & parts				
S-3: Sanitise					
3.1	Individual cleaning responsibility assigned				
3.2	Make cleaning and inspection easy (15cm above floor)				
3.3	Clean the places most people do not notice (anti-SARS)				
3.4	Cleaning inspections and correct minor problems				
3.5	Regular sparkling cleaning campaigns				
S-4: Standardise					
4.1	Transparency (e.g.: minimize doors, covers & locks)				
4.2	Straight line and right-angle arrangements				
4.3	‘Danger’ warning, fire extinguisher & exit signs				
4.4	Dangerous goods, mechanical safety measures				
4.5	Workplace work instructions and ‘passed’ labels				
4.6	Electrical wiring neatness and switch labels				
4.7	Energy Conservation – Aircon temp. mark/switch				
4.8	Physical handling standards and instructions				
4.9	Colour & Visual Mgt. -- paper, files, containers, etc.				
4.10	5-S responsibility labels on floor plan or at site				
4.11	Food safety & prevent contamination/danger at source				
4.12	Safety Policy & Risk Assessment				
4.13	Fool-proofing (Poka-yoke) Practices				
4.14	Park-like environment (garden office/factory)				
4.15	The 5-S & OSH Museum (including photos before/after)				
S-5: Self-discipline					
5.1	Execute individual 5-S responsibilities				
5.2	Wear suitable clothing/safety helmet/gloves/shoes/etc.				
5.3	Good communication & phone practices (magic-word)				
5.4	Do 5-minute 5-S Practice daily				
5.5	One day processing of job/tasks (see 1.6)				
5.6	Safety-box and practise dealing with emergencies				
5.7	Organisation Chart and Performance Indicators				
5.8	Design and follow the 5-S Manual				
5.9	Quarterly 5-S Audit and Improvements				
5.10	Seeing-is-believing and Keep It Short & Simple (KISS)				

App. 2: Lean 5-S® Audit Checklist: 10 Operations & 5 Steps Approach

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L5S Audit Checklist	Change	L5S Audit Checklist	Change
L1: <u>Product/Process Design</u>	+10%	L6: <u>TPM</u>	-10%
1.1 Customer Feedback	_____ %	6.1 Breakdown	- _____ %
1.2 Blue-ocean Strategy	_____ %	6.2 Spare equipment	- _____ %
1.3 80/20 Rule	_____ %	6.3 Maintenance Staff	- _____ %
1.4 Over-design	_____ %	6.4 Obsolete	- _____ %
1.5 Purchase/Add-value	_____ %	6.5 Maintenance is Free	- _____ %
L2: <u>Forecasting</u>	+10%	L7: <u>Uneven Flow</u>	+10%
2.1 Produce > Sales	_____ %	7.1 Bottleneck	_____ %
2.2 Sales > Produce	_____ %	7.2 4-M Co-ordination	_____ %
2.3 Overtime Rate	_____ %	7.3 Non-stop Flow	_____ %
2.4 Idling Capacity	_____ %	7.4 Delay in delivery	_____ %
2.5 Just-In-Time (JIT)	_____ %	7.5 Flow KISS & Merge	_____ %
L3: <u>Men & Materials</u>	-10%	L8: <u>Quality Defects</u>	-10%
3.1 Idling HR	- _____ %	8.1 1-10-100 Rule	- _____ %
3.2 Unfit HR	- _____ %	8.2 DIRFT	- _____ %
3.3 Expensive Purchases	- _____ %	8.3 5 to 6-σ	- _____ %
3.4 Cost of Men/Materials	- _____ %	8.4 Don't Get, Make & Send	- _____ %
3.5 Plan at 101%	- _____ %	8.5 Fool-proofing	- _____ %
L4: <u>Utilities & Tax</u>	-20%	L9: <u>Stock Control</u>	-10%
4.1 Water + Sewage	- _____ %	9.1 Over-stock	- _____ %
4.2 Electricity + Aircon	- _____ %	9.2 Loss stock, loss money	- _____ %
4.3 Gas + Heating	- _____ %	9.3 Dead-stock is loss	- _____ %
4.4 Telecom & Internet	- _____ %	9.4 Poor control leads to	- _____ %
4.5 Tax	- _____ %	9.5 Cheating	- _____ %
L5: <u>5-R for Machines/Matl.</u>	-10%	L10: <u>Floor and Space</u>	+10%
5.1 <u>Refuse</u>	- _____ %	10.1 Floor area is expensive	_____ %
5.2 <u>Reduce</u>	- _____ %	10.2 Space for storage	_____ %
5.3 <u>Re-use</u>	- _____ %	10.3 High/Mid/Low Usage	_____ %
5.4 <u>Re-cycle</u>	- _____ %	10.4 Park-like setting	_____ %
5.5 <u>Replace</u>	- _____ %	10.5 Happy Customer brings Profit	_____ %
Profit increase arise from +% →	_____ %	Saving arise from -% →	_____ %

APP-3 – Questionnaire

To: Owners / Senior Managers / Shop Manager of Restaurant,

As part of my PhD research, I would appreciate it if you could spare about 10-15 minutes of your time to complete the following questionnaire. Your help really contribute to the survey that may benefit to youngsters all over the world.

Apr 2014

All data provided by you will be treated in strict confidence. Please note that by completing this questionnaire, your responses can be used but not cited in the completion of this project in agreement with the Personal Data (Privacy) Ordinance. By completing the questionnaire and submitting it, you are acknowledging that you have read the information below and consent to the data being used as described.

Topic: *Applicability of Green Gemba (Workplace) Management to the Restaurant Business in HK & China for Sustainable Dvelopment*

Section-A: Operating Environment (for Restaurant Business, RB)

		<u>Questionnaire</u> (please circle your choice):-						
		<i>Strongly Disagree</i>		<i>Agree</i>			<i>Strongly Agree</i>	
A-1	The recent “Lean Policy” required by the Central China Government has seriously reduced your business	1	2	3	4	5	6	7
A-2	It is very difficult to recruit staff due to the shortage of workers	1	2	3	4	5	6	7
A-3	The new ‘Labour Law’ has significantly raised the operating cost.	1	2	3	4	5	6	7
A-4	Due to the rising cost of water, electricity & gas, the profit margin has dropped considerably.	1	2	3	4	5	6	7
A-5	Due to the more stringent environmental control measures, the operating cost has gone up considerably.	1	2	3	4	5	6	7
A-6	Our customers are very sensitive to the rising cost and as a result, we have lost them considerably.	1	2	3	4	5	6	7
A-7	Please suggest ONE difficulty in Operating Environment which was not mentioned above.							

Section-B: Green Gemba Management-1: 5-S Practice

		<u>Questionnaire</u> (please circle your choice):-						
		<i>Strongly Disagree</i>		<i>Agree</i>			<i>Strongly Agree</i>	
B-1	Materials are stocked according to High/Medium/Low usage.	1	2	3	4	5	6	7
B-2	Everything has a 'Name' and a 'Home' to facilitate 30-second retrieval.	1	2	3	4	5	6	7
B-3	Hiding places like stove floor, air-ducts, refrigerator edges are cleaned weekly.	1	2	3	4	5	6	7
B-4	Use of colour-coding for storing raw meat, cooked meat and vegetables in refrigerators.	1	2	3	4	5	6	7
B-5	Assign 3rd party audit to ensure that 5-S is implemented continuously.	1	2	3	4	5	6	7
B-6	Please give ONE big challenge for the sustainability of 5-S implementation							

Section-C: Green Gemba Management-2: Lean 5-S Practice

		<u>Questionnaire</u> (please circle your choice):-						
		<i>Strongly Disagree</i>		<i>Agree</i>			<i>Strongly Agree</i>	
C-1	Use Blue Ocean Strategy to design special menu to attract your customers.	1	2	3	4	5	6	7
C-2	According to the demand at different timing, produce the appropriate products and services as required.	1	2	3	4	5	6	7
C-3	According to the ability and the need of the business, organise scheduling and posting of manpower.	1	2	3	4	5	6	7
C-4	Save water, electricity and gas expenses is important.	1	2	3	4	5	6	7
C-5	Re-use materials and water in order to achieve saving.	1	2	3	4	5	6	7
C-6	Our employees know how to care about the facilities in order to minimise maintenance costs.	1	2	3	4	5	6	7
C-7	Use Machine to replace Manual work as far as possible in order to improve productivity (e.g., use machine to defrost).	1	2	3	4	5	6	7
C-8	Have many standard operating instructions in place to minimise errors and the associated cost.	1	2	3	4	5	6	7
C-9	Use a lot of shelving and plastic boxes for storage in order to maximise the use of space and hence save rental cost.	1	2	3	4	5	6	7
C-10	Use Questionnaire to find out the 'Satisfaction Levels' of our customers and make the necessary improvement.	1	2	3	4	5	6	7
C-11	Please list ONE cost of operation which you consider affecting your operating cost the MOST.							

Section-D: Competitiveness for Sustainable Development (SD)

<u>Questionnaire</u> (please circle your choice):-		<i>Strongly Disagree</i>			<i>Agree</i>		<i>Strongly Agree</i>	
D-1	We are planning to increase our manpower in the coming 1-6 months.	1	2	3	4	5	6	7
D-2	We are planning to increase our prices in the coming 1-6 months.	1	2	3	4	5	6	7
D-3	We are planning to open new branches in the coming 6-12 months.	1	2	3	4	5	6	7

Section E: Demographic Data (for analysis only):-

E-1: Average bill/customer for lunch (in CN\$): <50 50-99 100-149 150-199 200-249 >250

E-2: Average bill/customer for dinner (in CN\$): <100 100-199 200-299 300-399 400-499 >500

E-3: Total number of outlets = _____

E-4: Average number of seats/outlet = _____ seats

E-5: Average number of turns/table/day = _____ turns

E-6: My position at the restaurant is: Owner / Senior Manger / Shop Manager

~ A big **THANK YOU** for finding the time to complete this questionnaire. ~

Please hand-over, fax or email this duly completed questionnaire to ➔ **Anthony CHAN**

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Authors' Background

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	<p><i>Prof. Samuel K. M. Ho (PhD in Mangt., FIQA, ISO9000 Lead Auditor, EQA Assessor) In 1987-88, he was awarded the Oshikawa Fellowship by the Asian Productivity Organisation to do research in South East Asia and Japan. In 1993 he was invited as the first Quality Expert to the Malaysian Government by the Asian Development Bank for 6 months. As the guest editor for four international journals on quality management, he has over 120 publications (with a Google Scholar Citation Index > 1,200). Sam is the Director for the HK 5-S Campaign funded by the HKSARG for US\$600,000. Since 1993, he used the proprietary 5-S Checklist for training and consultancy in no less than 10 countries with over 50,000 persons from around 2,000 firms world-wide. As an ex-Research Fellow at Cambridge, and Guest Speaker at Oxford, he is also Visiting Professor at Coventry & Paisley (UK), RMIT (Australia), Linnaeus (Sweden), Peking & Tsinghua (China) University Business Schools.</i></p>