

Is Operational Quality Parameters of Baldrige Award relevant in today scenario? Answered by South Indian Hospitality Industry

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ABSTRACT

The Baldrige award originated from the Malcolm Baldrige National Quality Improvement Act, for development of guidelines and criteria's for evaluating their quality efforts. Performance are measured conventionally by financial and market performance. Some of the previous researchers fail to get or to link these variables. Therefore, three variables stability, structure and simplicity are taken as the performance indicators. The Indian hospitality industry has emerged as one of the key industries driving growth of the services sector. If the theoretical relationship can be established in this industry then it can be generalized for all service and manufacturing industries. The paper tries to find the relationship of the Operational parameters of the Baldrige award and with the performance outcomes of stability, structure and simplicity which was originally used in age-old practices of US *Training Within Industry* (TWI) program. A set of structural relationship models have been analyzed in a scenario of hotel industry to validate the relationship. Primary data collected through a structured questionnaire in southern parts of India is used.

Introduction

The Baldrige award originated from the Malcolm Baldrige National Quality Improvement Act, for development of guidelines and criteria's for evaluating their quality efforts. These awards may be given annually in each of six categories such as Manufacturing, Service company, Small business, Education, Healthcare and Non-profit.(ASQ). Many other awards given by various organizations and governments also use Baldrige's quality criteria and parameters to evaluate industries. Performance are measured conventionally by financial and market performance. Some of the previous researchers fail to get or to link these variables. Therefore, three variables stability, structure and simplicity are taken as the performance indicators. The Indian hospitality industry has emerged as one of the key industries driving growth of the services sector. If the theoretical relationship can be established in this industry then it can be generalized for all service and manufacturing industries. The paper tries to find the relationship of the Operational parameters of the Baldrige award and with the performance outcomes of stability, structure and simplicity and overall scores of such parameters and performance of Indian hotel industry.

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A few papers attempted to find actual relationship between the parameters with actual performance of the company. However, financial performance is very difficult to obtain and to measure.

This paper has an objective to use the performance measure which was originally used in age-old practices of US *Training Within Industry* (TWI) program. A set of structural relationship models have been analyzed in a scenario of hotel industry to validate the relationship.

Literature review and Theory development

The Malcolm Baldrige National Quality Award (MBNQA) awards is given annually in each of six categories such as Manufacturing, Service company, Small business, Education, Healthcare and Non-profit.(ASQ). The baldrige criteria is given in the figure 1.

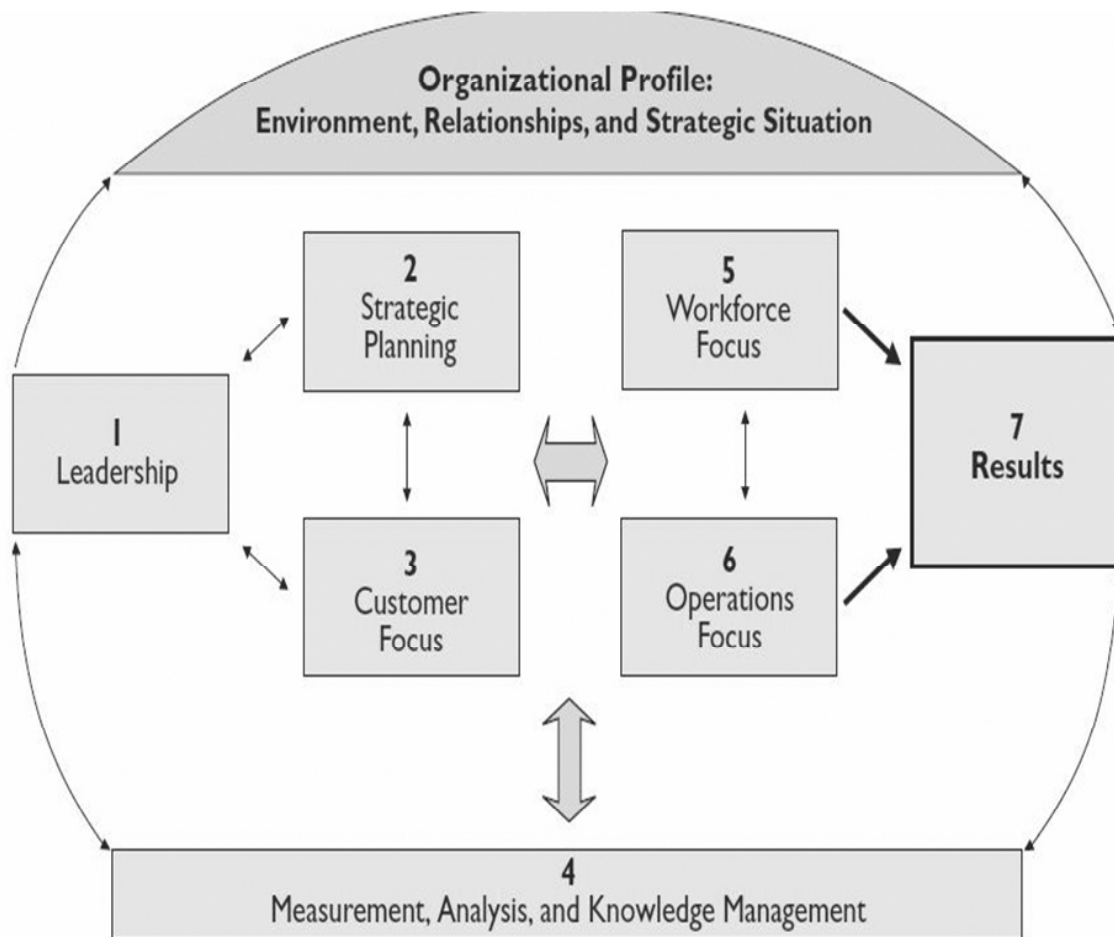


Figure 1. Baldrige Framework - a business model for integrated systems management (Source: (Baldrige))

The Leadership skills studied by (Hayton, March 2005) are listed as 1. Technical, Analytical & Diagnostic 2. Administrative 3. Decision Making 4. Human & Social Responsibility 5. Communication 6. Interpersonal 7. Visionary & Conceptual 8. Ethical 9. Flexible 10. Performance Review. DeRue. Ashford (2010) explains a leadership identity comprises of three elements: individual internalization, relational recognition, and collective endorsement. Individual internalization is a state where individuals come to incorporate the identity of leader or follower as part of their self-concept.

Kausik and Mahadevan (2011) explains strategic sourcing consists of processes of planning, evaluating, implementing and controlling all sourcing activities undertaken by an organization to achieve its long term goals. The principal objective of strategic sourcing is to effectively handle situations when faced with supply, competitive, and demand uncertainties).

Knowledge management comprises a range of strategies and practices used in an organization to identify, create, represent, distribute and enable adoption of insights and experiences. Such insights and experiences comprise knowledge, either embodied in individuals or embedded in organizations as processes or practices (Ramanigopal 2012)

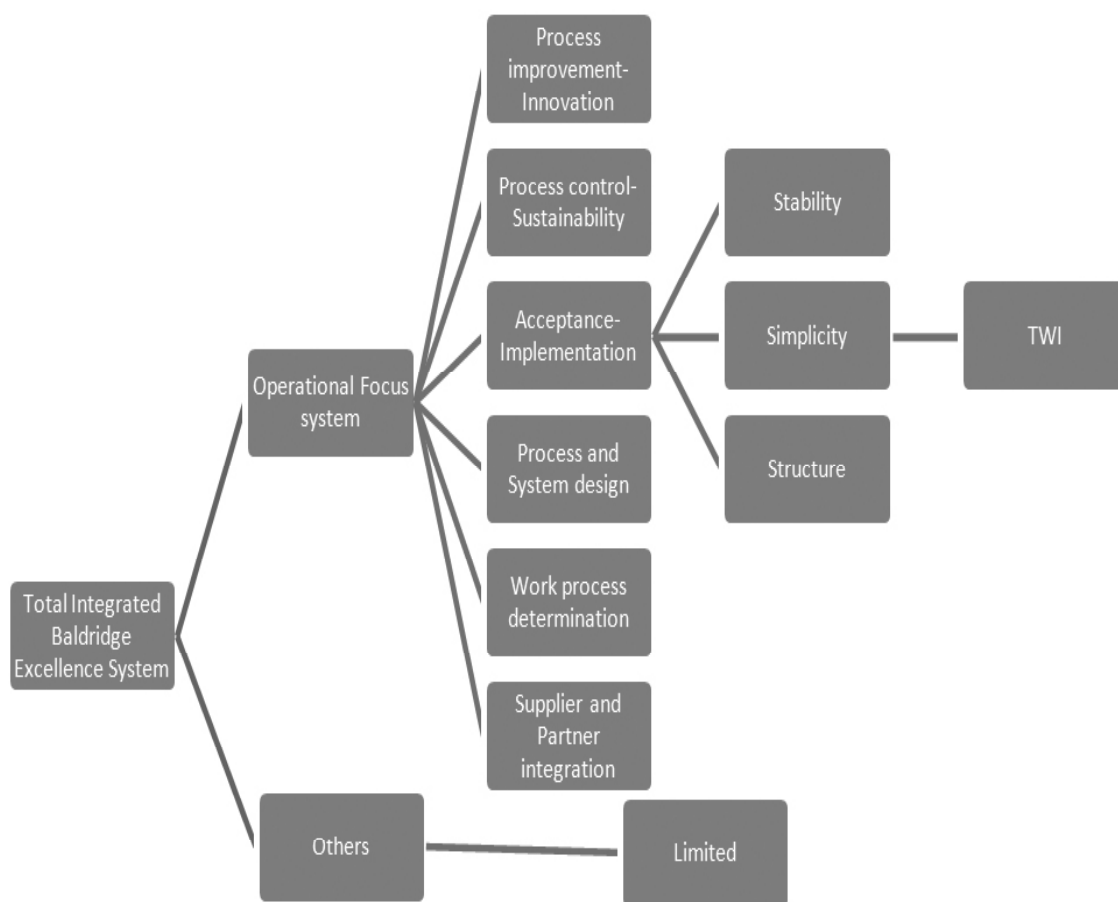
Indradevi (2010) explains that training has been identified as a major tool to optimize organization and employee capability. It clearly indicates that the companies which have successfully implemented training programs, deliver customer goals with effective results.

Work force focus dealt by Lynch et al (2009) that there are many factors that relate to engagement, including the extent to which there is a good 'fit' between employees' needs and preferences and the policies and programs offered by employers. Flexibility is one job characteristic that has been found to be important to workers of all ages and career stages, but some studies suggest that it may be particularly preferable for older workers.

Reliability refers to the consistency of a number of measurements taken using the same measurement method on the same subject. If repeated measurements are highly consistent, then there is a high degree of reliability with the measurement method or the operational focus. (Kaur and Anand 2013)

Unlike many studies (financial data), here Results are measured by stability, simplicity and structure from TWI concepts (WAR man power Corporation, 1945). This paper has taken only stability parameter to find relation with Baldrige parameters. Stability is an opposite term to instability or uncertainty or non-sustainability of organization.

Sekkizhar, J. (2016) has studied the relation between Quality Parameters of Baldrige award with stable performance outcome in Indian Star Hotel. This paper covers a broader scope of the research extended from the above paper. Based on the above literatures the following model was developed.



The research hypotheses are framed as follows.

H1- There is a relation Operational Quality Parameters of Balridge and Stability

H2- There is a relation Operational Quality Parameters of Balridge and Simplicity

H3- There is a relation Operational Quality Parameters of Balridge and Structure

Research methodology

A well structured questionnaire has been prepared with industry people discussion. The questionnaire contained 146 indicator questions covering all the parameters (construct variables) in Balridge Quality Awards (See the Appendix). It is administered as a cluster sampling since a cluster of hotels with various backgrounds are assembled in a place for their annual meet. Considering a sampling frame of Hotels across India, a sample of 60 (grade from 3star to 5star) Hotel data collected at 48th FHRAI Annual Convention at the **Le Meridien Resort & Convention Centre, Kochi, Kerala. Actually the respondents were managing directors, senior managers and executive officers representing themselves for their hotels.**

The sample size has been substantiated using Gpower 3.0 software as is.

t tests - Correlation: Point biserial model

Analysis: Post hoc: Compute achieved power

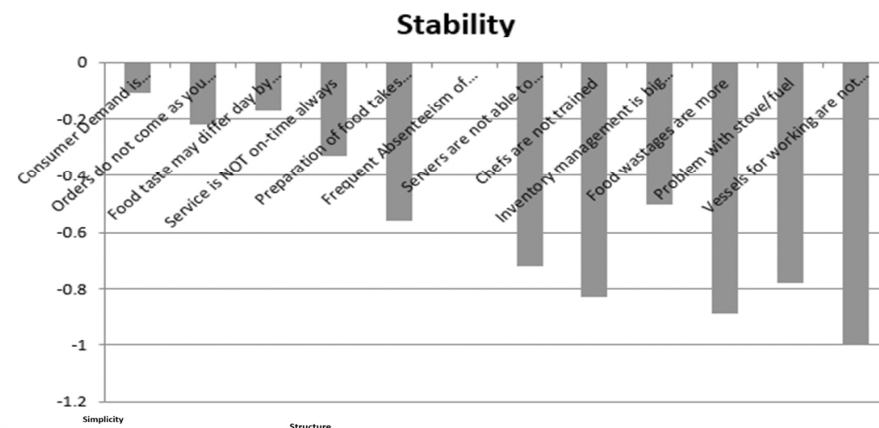
Input:	Tail(s)	=	One
	Effect size r	=	0.3
	á err prob	=	0.05
	Total sample size	=	60
Output:	Noncentrality parameter ä	=	2.435994
	Critical t	=	1.671553
	Df	=	58
	Power (1-â err prob)	=	0.777138

This empirical study explains statistical tools such as Mean scores and Structural equation modeling. The software packages used for analyzing were SPSS and Visual PLS. A structural equation modeling is developed by Visual PLS software. The regression coefficients are given on each link and T statistic value is given at the bottom of the above said value and parenthesized. If T value is greater than 2.00 (Student t table value at 5% level of significance at larger degrees of freedom), then it is concluded that there is a significant relationship.

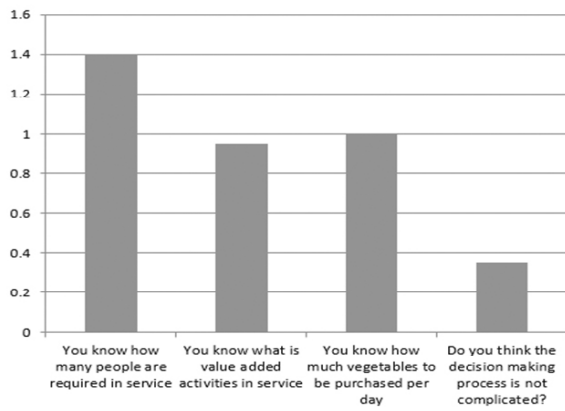
Analysis and Interpretation

TWI outcome parameter

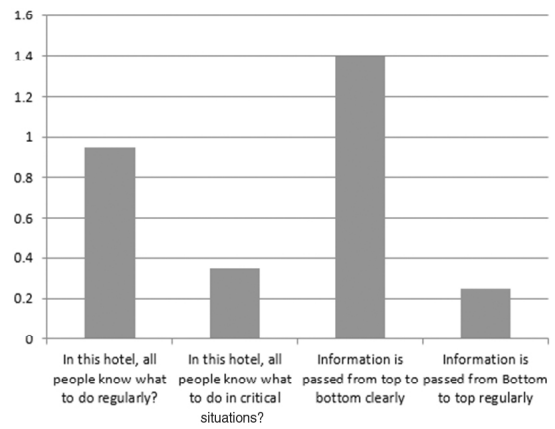
It is seen that the most of the variables have stability, with sufficient vessels being the most stable. Variables like workers absenteeism, customer demand, food taste and service time are least stable. With regard to simplicity, the variables are simple and easily understood by all, but most feel the decision making process is a little complex. Even the structure of processes is clear it is seen information passing from bottom to top and the process to be carried out is not too clear.



Simplicity

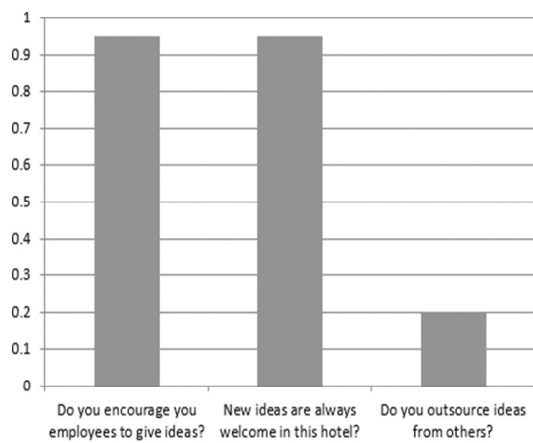


Structure

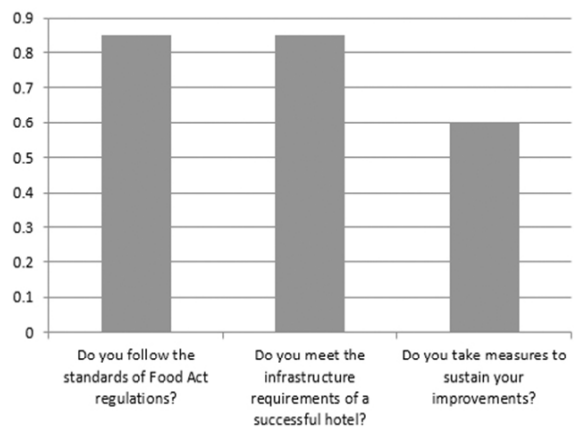


Operational Focus System

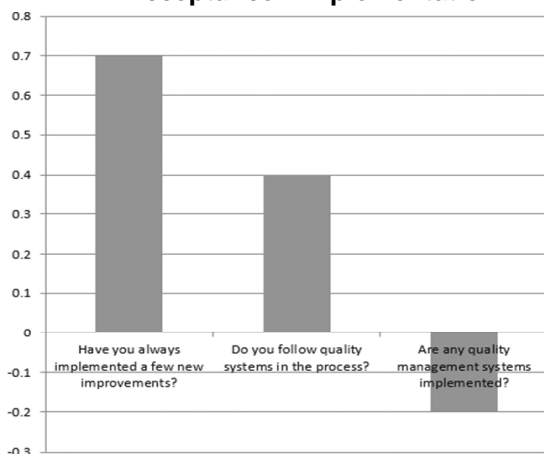
Process Innovation



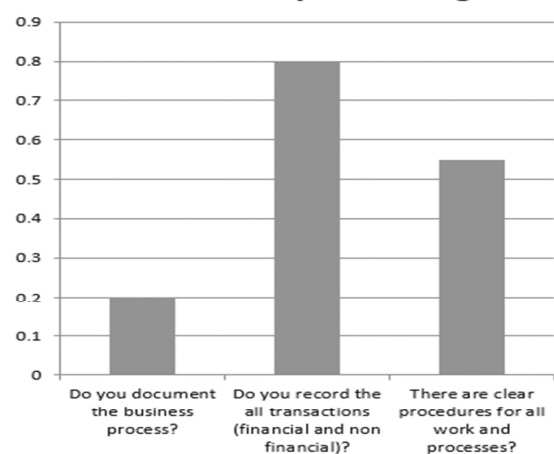
Process control-Sustainability

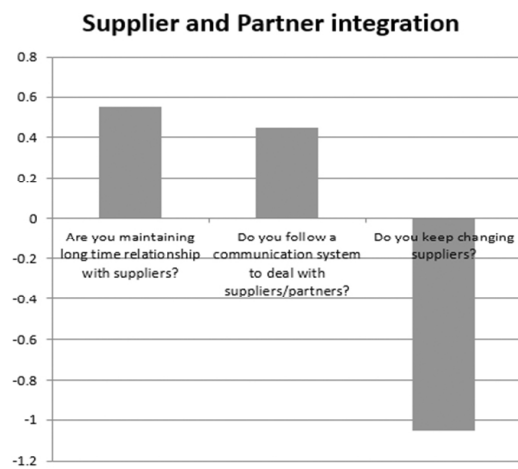
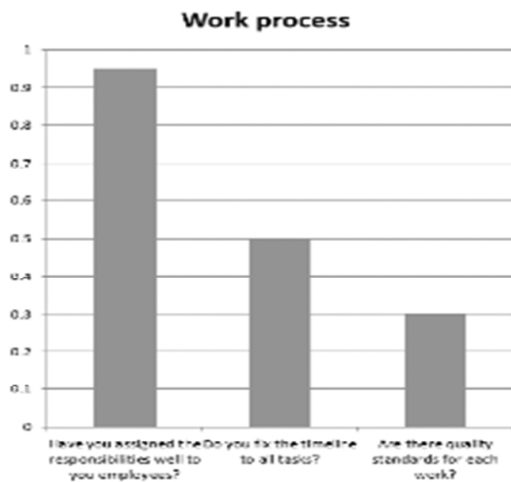


Acceptance - Implementation

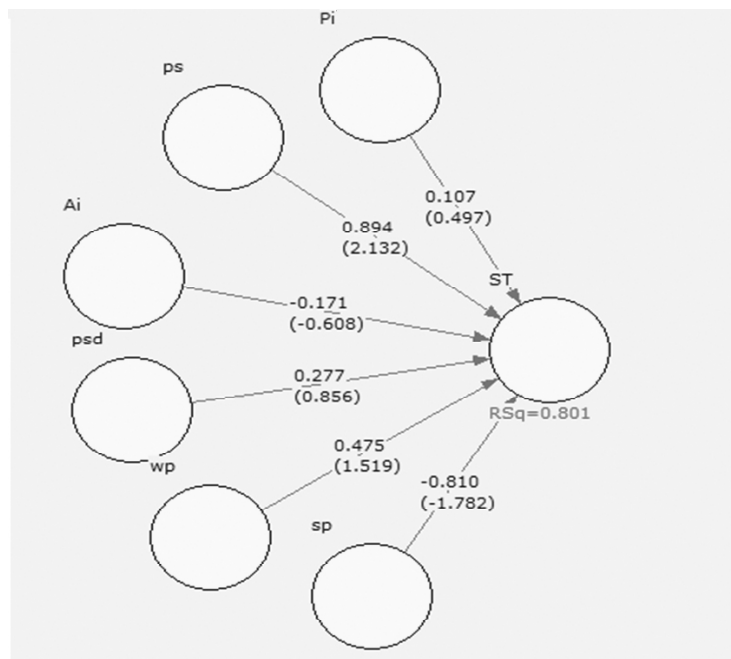


Process and System design

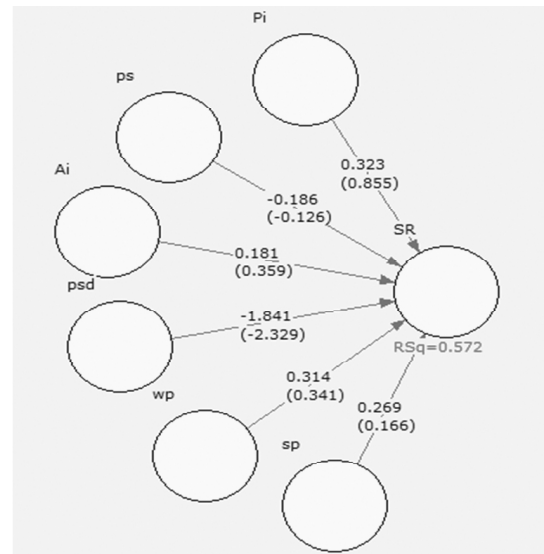
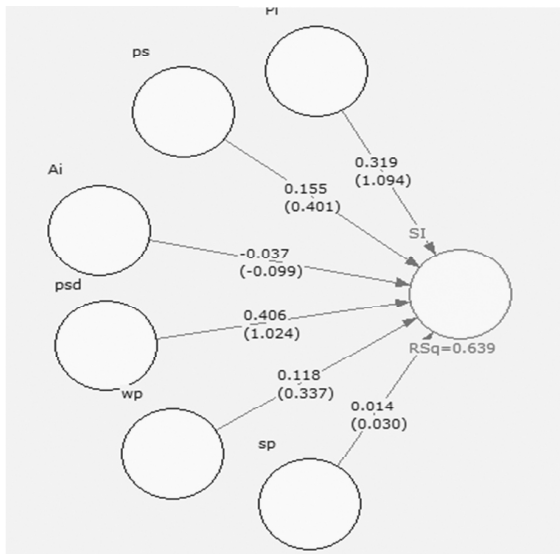




There are a lot of new ideas outsourced from employees and are welcome and these processes are sustained as well in most hotels. On the down side very less quality management systems are implemented in most hotels. In work process even though responsibilities are clearly assigned the timeline and quality standards are not so clear. Also most hotels keep changing partners and rarely keep a long term relationship.



From the above models, one can see there is a relationship between Process sustainability and Structure, it is clear that there is a clear structure that there is more sustainability to the process.



The researcher don't see a high relationship between the outcome of simplicity and the operational parameters. Here there is a relationship between process and system design and structure. Indian Hotel industry is varying from all industries, because the recipe, hospitality and consistent service are not driven by system instead by the people. Also, it is interesting to note that the strategic focus is not towards the system stability, but for expansion and in turn to investment management. Therefore, one can observe more volatility in this industry. Though it varies because of seasonality and external sources, it is evident that there is no internal strategic mechanism to shock absorb the in-stability in long run. Only short term tactics such as hiring temporary employees, outsourcing and infrastructure maintenance are happening. Workforce capability and relation with stability is well proves the above argument. Since customer segmentation is highly related with the stability of organization, the workforce should be trained to get skill of personal relationship with the customer groups. From the analysis and figures, the following key results are found.

- Customer market segmentation is the only variable positively influences Stability of organization.
- No knowledge management variable is significantly influencing the stability of system.
- There is relationship between workforce capabilities with stability significantly.
- There is a relationship between Implementation and Stability of an hotel business. The better the implementation done there will be more stability to the business.

Table 1. First order Construct variables used to measure the Baldrige award parameters

Leadership system		Strategic Development		Customer Management System	
Communication-Engagement	CE	Action Plan deployment	APD	Customer culture Building	CC
Governance ethics	GE	Action Plan Development	AP	Customer Market Segmentation	CM
Leadership Process	LP	Resource Allocation-Redirection	RA	Customer Support	CS
Organizational Performance and review	OP	Risk Assessment	RA	Engagement- Satisfaction Determination	ES
Organizational Stability	OS	Strategic Resource commitment	SRC	Listening –Complain Management	LC
Societal Responsibility	S1	Strategic Sourcing	SS	Product offerings Determination	PO
Succession - Development	SD	Strategy Development Process	SDP		
Knowledge Management System		Workforce Management System		Operational focus system	
Analysis	A	Career Progression	CP	Acceptance- Implementation	AI
Benchmarking and comparison	BC	Learning and development	LD	Process and System design	PS
Data, Information, Knowledge reliability	DI	Recruit, Hire, Place and Retain	RH	Process control-Sustainability	PS
Hardware and Software Reliability-Security	HS	Workforce Capability-Capacity	WC	Process Innovation	PI
Knowledge Availability-Sharing	KA	Workforce Climate improvement	WI	Supplier and Partner integration	SP
Knowledge Management	KM	Workforce Engagement Assessment	WA	Work process	WP
Performance	PK	Workforce Engagement management	WM		
Review	R1	Workforce performance measurement	WP		

Conclusion

This paper tries to incorporate a TWI resulting parameters in the replacement of financial outcomes, since it varies from various industrial elements and also much affected by multiple number of external and internal factors. From the different analysis we can see there is a relationship between some of the operational quality parameters of Baldrige and performance outcomes of structure, simplicity and stability. The limitations were that the data collected for this paper is very limited, there is further analysis required. SEM analysis was done to explain the interconnectivity of these parameters. As far as the results, it is moderately done by the Indian industry. A system driven approach was strongly suggested in this paper. As scope of further research, the models can be carried out with small hotels and also to do a comparison study with numerical scores of the parametric variables. The limitations were that the data collected for this paper is very limited and the sample size was limited only to the hotel industry. The relationship between the parameters can change according to the industry. Hence there is a need for further analysis.

Acknowledgement

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References

- ASQ asq.org - <http://asq.org/learn-about-quality/malcolm-baldrige-award/overview/overview.html>.
- Baldrige Baldrige Framework . - http://www.baldrige21.com/Baldrige_Framework.html.
- Hayton James Leadership and Management Skills in SMEs : Measuring Associations with Management Practices and Performance Technical report // BIS Research paper. - March 2005.
- Indradevi, R. (2010), "Training for Most Capable Workforce", *Advances In Management*, Vol. 3 (12),
- Kaur, K. and Anand, S. (2013), "Review on Software and Hardware Reliability and Metrics", *International Journal of Science, Engineering and Technology Research (IJSETR)* Volume 2, Issue 5.
- Kausik, U. and Mahadevan B.(2011), "Strategic Sourcing: Trends and Emerging Issues for Research", Indian Institute of Management, Working Paper NO: 335
- Lynch, M., Harris, and Dychtwald, K. (2005). "The Merrill Lynch New Retirement Survey: A perspective from the baby boomer generation", *Survey report*.
- Ramanigopal C. (2012), "Knowledge Management Strategies for Successful Implementation in Aerospace Industry", *Advances In Management*, Vol. 5 (12)

- Sekkizhar, J. (2016), A relational study on Quality Parameters of Baldrige award with stable performance outcome in Indian Star Hotel, Asian Journal of Research in Social science and Humanities, Vol VI, issue IX, Nov. pp. 67-70.
- Zack, M. H. (1999), "Managing codified knowledge", *Sloan Management Review*, Vol.40, No. 4, pp. 45-58.
- WAR MANPOWER COMMISSION (September 1945), Bureau of training, Training Within Industry (TWI) Service.

http://chapters.sme.org/204/TWI_Materials/TWI_Manuals/TWI_Bulletin_Series_Manual.pdf. Reprinted by *Dinero, Donald (2005). Training Within Industry: The Foundation of Lean. Portland, OR: Productivity Press. ISBN 9781563273070.*

APPENDIX

Instrument at 1-5 Likert scale COMPARING WITH YOUR COMPETITORS

	Item no.	INDICATORS
Stability	St1	Consumer Demand is unexpectedly varying in your hotel
	St2	Orders do not come as you expect
	St3	Food taste may differ day by day
	St4	Service is on-time always
	St5	Preparation of food takes more time
	St6	Frequent Absenteeism of workers
	St7	Servers are able to understand customer needs
	St8	Chefs are well trained
	St9	Inventory management is big problem
	St10	Food wastages are more
	St11	Problem with stove/fuel
	St12	Vessels for working are not sufficient
Simplicity	Si01	You know how many people are required in service
	Si02	You know what is value added activities in service
	Si03	You know how much vegetables to be purchased per day
	Si04	Do you think the decision making process is complicated?

Structure		
	Sr01	In this hotel, all people know what to do regularly?
	Sr02	In this hotel, all people know what to do in critical situations?
	Sr03	Information is passed from top to bottom clearly
	Sr04	Information is passed from Bottom to top regularly
Process Innovation	PI1	Do you encourage you employees to give ideas?
	PI2	New ideas are always welcome in this hotel?
	PI3	Do you outsource ideas from others?
Process control- Sustainability	PS1	Do you follow the standards of Food Act regulations?
	PS2	Do you meet the infrastructure requirements of a successful hotel?
	PS3	Do you take measures to sustain your improvements?
Acceptance- Implementation	AI1	Have you always implemented a few new improvements?
	AI2	Do you follow quality systems in the process?
	AI3	Are any quality management systems implemented?
Process and System design	PSD1	Do you document the business process?
	PSD2	Do you record the all transactions (financial and non financial)?
	PSD3	There are clear procedures for all work and processes?
Work process employees?	WP1	Have you assigned the responsibilities well to you
	WP2	Do you fix the timeline to all tasks?
	WP3	Are there quality standards for each work?
Supplier and Partner integration	SPI1	Are you maintaining long time relationship with suppliers?
	SP2	Do you follow a communication system to deal with suppliers/partners?
	SP3	Do you keep changing suppliers?
Organizational Stability	OS1	Are there frequent changes in decisions taken?
	OS2	The top management is clear of the objectives
	OS3	There are always no changes in the actions taken by the leaders
Communication- Engagement	CE1	The organizations leaders share information always?
	CE2	Does the top management receive information from below?
	CE3	Is proper reporting done?

Leadership Process	LP1	Does the top management engage you with decision making?
	LP2	Are you motivated by the leaders?
	LP3	Do you have autonomy in your work
Governance ethics	GE1	The top leaders act in a very ethical manner
	GE2	The decisions taken consider society as well
	GE3	Decisions taken are not only profit oriented
Organizational Performance and review	OP1	Leaders do a performance review on a regular basis
	OP2	Top management has a system for performance review
	OP3	A just and unbiased review is done always
Societal Responsibility	S1	Concern towards society in decision making
	S2	Environmental harm is not done by this hotel
	S3	The society's well being is considered in your policies
Succession - Development	SD1	Is there a clear succession plan for all posts in your organization
	SD2	Top management always foresees and decides the successors for important posts
	SD3	Training is given for the individuals
Strategy Development Process	SDP1	The management always comes up with new strategies for improvements
	SDP2	Do you develop strategies for marketing your brand?
	SDP3	Do you involve in this process of strategy development
Action Plan Development	AP1	Do you always establish short- and long-term strategic objectives?
	AP2	The management decides on a plan to achieve these objectives always
	AP3	Do you involve in this process of action plan development.
Action Plan deployment	APD1	Do you develop and deploy action plans to achieve your key strategic objectives?
	APD2	Are the plans made always executed?
	APD3	Are there frequent checks made on the progress of the plans?
Strategic Sourcing	SS1	Do you follow a strategy for sourcing?
	SS2	Do you source any strategies from other firms?
	SS3	Do you select suppliers based on strategic sourcing?

Risk Assessment	RA1	Do your strategic objectives address challenges?
	RA2	Are your risks assessed quantitatively?
	RA3	Are your risks prioritized?
Strategic Resource commitment	SRC1	Do you treat your employees with respect?
	SRC2	Are they given importance in strategy development?
	SRC3	Are they included in decision making?
Resource Allocation-Redirection	RAR1	Resources are always allocated efficiently.
	RAR2	Each department has sufficient workers
	RAR3	Do you change departments of your workers in case of absenteeism.(Job Rotation)
Product offerings Determination	PO1	Do you know what the customers preferences at all times?
	PO2	Do you ask your customers on what they want?
	PO3	Is it just based on routine?
Customer Market Segmentation	CM1	Do you know who your most important customers are?
	CM2	Is it segmented by the need of the customers?
	CM3	Is it segmented on the basis of age?
Customer culture Building	CC1	Do you have a team for customer relations management?
	CC2	Do you think customer relationship is important?
	CC3	Do you provide any loyalty plans?
Customer Support	CS1	Do you engage the customer 24/7
	CS2	Is customer service necessary?
	CS3	Do you have a good customer service
Listening - Complain Management	LC1	Do you ask your customers their wants and needs
	LC2	Do you consider customers feedback
	LC3	Do you manage complaints well?
Engagement - Satisfaction Determination	ES1	Do you ask your customers if they are satisfied or not?
	ES2	Do you make sure to satisfy your customers?
	ES3	Do you take feedback from your customers to find if they are satisfied?

Analysis	A1	Do you use data and information for tracking daily operations and for tracking overall organizational performance?
	A2	Are the data collected for assessment enough?
	A3	Are the analyses effective?
Knowledge Availability-Sharing	KA1	Do you analyze data and information to support organizational decision making?
	KA2	Does department share data?
	KA3	Is the data collection process effective?
Knowledge Management	KM1	Do you manage organizational knowledge to accomplish the collection?
	KM2	Do you transfer relevant knowledge from customers and suppliers?
	KM3	Do you manage and transfer workforce knowledge?
Data, Information, Knowledge reliability	DI1	Are the sources of information given to your employees reliable?
	DI2	Are the data collected from good research?
	DI3	Are the required data collected?
Review	R1	Are regular checks and reviews done?
	R2	Are review methods effective?
	R3	Frequent reviews are done here?
Benchmarking and comparison	BC1	Do you analyze data and information to support organizational decision making?
	BC2	Benchmarking techniques used effective?
	BC3	Comparison against the industry best?
Hardware and Software Reliability- Security	HS1	Do you monitor data?
	HS2	Are the security systems reliable?
	HS3	Are the current security systems enough for the data protection?
Performance	PK1	How well are the performance measured?
	PK2	Is the performance of your hotel good?
	PK3	Are there chances of improvement?
Workforce Engagement management	WM1	Do you organize and manage work and jobs to promote cooperation and your organizational culture?
	WM2	Does the management engage the employees well?
	WM3	Are the employees co-operative?

Workforce Engagement Assessment	WA1	Do you determine the key factors that affect workforce engagement and workforce satisfaction?
	WA2	Do you focus only on important factors for evaluation?
	WA3	Are the methods followed to assess effective?
Recruit, Hire, Place and Retain	RH1	Is company effective in retaining employees?
	RH2	Does recruitment add value?
	RH3	Is the recruitment process effective?
Career Progression	CP1	Is their significant increase of opportunities in your career?
	CP2	Is there a continuous growth?
	CP3	Are you satisfied by your career progression?
Learning and development	LD1	Do you deliver employee training, and development?
	LD2	Is there significant development in your skills?
	LD3	Do you provide education opportunities to your employees?
Workforce Capability-Capacity	WC1	Is everyone capable to complete the work assigned?
	WC2	Are there enough employees per work?
	WC3	Is work done effected by lack of employees?
Workforce Climate	WI1	Do you benefit from the diverse ideas, cultures, and thinking of your workforce?
	WI2	Do you have a good employee employer relationship?
	WI3	Are you aligned with the culture of the workforce?
Workforce performance measurement	WPM1	Do you use formalassessments and measures to determine workforce engagement?
	WPM2	Do you measure non-financial performance measures?
	WPM3	Are the assessment methods followed used effective?