

STARS

University of Central Florida
STARS


Honors Undergraduate Theses

UCF Theses and Dissertations

2019

Successfull Implementation of the Baldrige Performance Excellence Program in Small Businesses

Valentina Parra
University of Central Florida

 Part of the [Entrepreneurial and Small Business Operations Commons](#), and the [Industrial Engineering Commons](#)

Find similar works at: <https://stars.library.ucf.edu/honorsthesis>

University of Central Florida Libraries <http://library.ucf.edu>

This Open Access is brought to you for free and open access by the UCF Theses and Dissertations at STARS. It has been accepted for inclusion in Honors Undergraduate Theses by an authorized administrator of STARS. For more information, please contact STARS@ucf.edu.

Recommended Citation

Parra, Valentina, "Successfull Implementation of the Baldrige Performance Excellence Program in Small Businesses" (2019). *Honors Undergraduate Theses*. 646.

<https://stars.library.ucf.edu/honorsthesis/646>



**SUCCESSFULL IMPLEMENTATION OF THE BALDRIGE
PERFORMANCE EXCELLENCE PROGRAM IN SMALL BUSINESSES**

by

VALENTINA PARRA

A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program

Burnett Honors College

Industrial Engineering & Management Systems
College of Engineering and Computer Science

University of Central Florida
Orlando, Florida

Fall 2019

Thesis Chair: Heather Keathley, Ph.D.
Committee Member: Luis Rabelo, Ph.D.

ABSTRACT

In recent years, companies have been focused on improving organizational performance and the loyalty of customers to improve sustainability in increasingly complex markets. The Baldrige Performance Excellence framework, generally referred to as the Baldrige criteria, was created to guide professionals in achieving these goals including defining a set of excellence criteria and offering an award program to recognize high-performing organizations. The principles of excellence focus on understanding and working for the stakeholders, improving performance and quality management, and strategically driving continuous improvement. The framework can be used for organizational self-assessments; however, many organizations find it challenging to interpret and apply the criteria without prior knowledge of the framework and guiding principles. This is particularly true for small businesses, which are less formal, have less exposure to key terminology and concepts, and have limited resources. Although there is some research that focuses on successful application of the Baldrige criteria, this research is still exploratory and there is a need for empirical studies in this area. This research investigates the factors that affected the successful implementation of the Baldrige criteria by conducting an action research study to guide a small business in conducting the Baldrige Self-Assessment. This research consisted of a series of three surveys and online working sessions to both complete the Baldrige Self-Assessment, interpret the results, and evaluate the experiences of participants regarding the relative success of the self-assessment process as well as the factors that affected this process. The results of this study provide insights into strategies for ensuring successful application of this self-assessment process in small businesses. The findings show that unfamiliarity with key terminology and complexity of the questions were significant barriers to success. Further, the participants indicated that working as a team to complete the assessment facilitated the process due to real-time discussion of points of confusion. These results support the assertion that a version of the Baldrige Criteria specifically designed for small businesses is needed. Improving the accessibility of this framework will improve the chances of successful implementation bringing the potential benefits to more organizations.

Keywords: Baldrige Performance Excellence Framework, Action Research, Small Businesses, Quality Management, Performance Management, Success Factors.

DEDICATION

It always seems impossible until it's done.
Nelson Mandela

To my family and friends, for always supporting me in each adventure.

ACKNOWLEDGEMENTS

I am deeply thankful for the support and guidance of my thesis chair, Dr. Heather Keathley. Thank you for all the time and effort provided. You are a fantastic mentor.

TABLE OF CONTENTS

INTRODUCTION	1
LITERATURE REVIEW	3
Implementation Success Factors	5
METHODOLOGY	9
Research Questions	9
Action Research Procedure	10
Survey Development	12
Case Organization	15
RESULTS	17
Getting Started Survey Results	17
Baldrige Assessment Survey Results	19
Exit Survey Results	22
CONCLUSIONS	24
Limitations and Future Work	25
APPENDIX A: Study Documents	26
APPENDIX B: Study Information Sheet	28
APPENDIX C: Getting started survey	31
APPENDIX D: Baldrige Assessment Survey	38
APPENDIX E: Exit Survey	55
REFERENCES	58

INTRODUCTION

Over the past decades, organizations have been focused on improving organizational performance and the loyalty of customers to stay competitive in an increasingly complex and dynamic economic environment. The Baldrige Performance Excellence framework, generally referred to as the Baldrige criteria, provides guidance for organizations to improve performance through a guided self-assessment procedure as well as recognizes high-performing organizations through the Malcolm Baldrige National Quality Award (MBNQA) [1]. In today's economic environment, customers are often the ones that set the performance expectations for a company by establishing the required quality of the service or product. The Baldrige criteria provides a structured process for organizations to pursue performance improvement driving better results with customers and stakeholders.

Although the potential benefits of implementing the Baldrige criteria have been argued based on the characteristics of MBNQA winners, a brief review of the literature shows that there are relatively few empirical studies that investigate the successful implementation of this framework in practice [2]. Some research suggests that implementing the Baldrige criteria is a challenging process and that most organizations will face barriers while conducting the self-assessment [2-4]. This is particularly true for small businesses, which have relatively fewer resources (e.g., time, expertise) to support the implementation of this framework [5,6]. Understanding the factors that affect the implementation of the Baldrige criteria would support the development of strategies to ensure success, which could make the potential benefits of this approach available to more organizations.

This research investigated the factors that affect the successful implementation of the Baldrige criteria in a small business in which none of the organizational members had any previous experience with the Baldrige criteria. The study consisted of an action research project where the researchers facilitated an initial self-assessment while studying the participants' experience regarding factors that affected the implementation process. Three surveys were developed to support this research (Appendix A): a diagnostic survey adapted from the Baldrige 'Getting Started' survey, an open-form survey based on the Baldrige 'Excellence Builder' survey, and a final survey developed by the researchers to collect quantitative (Likert scale) and qualitative data regarding the participants' perceptions of the factors that affected the implementation of the Baldrige Self-Assessment. The results provide insights into the most significant barriers and facilitators for implementation in this environment, which contributes empirical evidence that supports the argument that a customized version of the Baldrige criteria should be developed for small businesses. In addition to the research questions, this study also contributes to the development of the case organization by identifying opportunities for improvement, providing potential action plans, and educating them on the Baldrige criteria and Self-Assessment procedure.

LITERATURE REVIEW

The Baldrige Performance Excellence framework was created to guide professionals in achieving performance improvement goals including defining a set of excellence criteria and offering an award program for recognizing high-performing organizations [1-4]. The principles of excellence consist of understanding and working for the stakeholders, improving performance and quality management, and strategically driving continuous improvement. The Baldrige framework has eight essential dimensions: Core Values & Concepts, Leadership, Strategy, Customers, Workforce, Operations, Results, and Measurement, Analysis & Knowledge Management, as shown in Figure 1 [1,2]. Each of these eight dimensions has a meaningful impact on organizational health and sustainability.



Figure 1. Baldrige Performance Excellence Framework [1]

The first dimension is the *Organizational Profile*, which is evaluated first to establish a foundation for the following sections and focuses on general organizational and strategic

characteristics. Next, there is a strategic direction triad of related dimensions on the left: strategy, leadership and customers. *Strategy* is focused on building a plan for the company and taking into consideration what the company wants to accomplish in the short and long term. This is particularly important as some plans of action will change over time. *Leadership* considers how people within the company manage operations and lead the employees. Lastly, *Customers* reflect the relationships with and requirements of customers or clients providing direction and purpose behind strategy and leadership. The customers represent an essential dimension because they drive organizational success.

In addition to the strategic direction triad, there is also the operations triad on the right that consists of workforce, operations, and results. The *Workforce* dimension is focused on creating an environment where high performance can be achieved taking into account the capability and capacity of the employees. *Operations* focuses on whether the workforce is effective and the capabilities and capacity of the organization. This dimension is where changes to policies or procedures are applied. Lastly, the *Results* category is focused on evaluating everything done in the other dimensions, learning from the insights, and using this information to make decisions. Finally, *Measurement, Analysis and Knowledge Management* focuses on collecting, understanding, and evaluating data from across the organization. This includes engaging in organizational learning and knowledge management to support the activities from the other dimensions.

Implementing the Baldrige Framework by conducting self-assessments has been claimed to have an important impact in all areas of a company; starting with the leaders of the company and

ending with the customers. Each element is vital to success and by conducting the self-assessment they first identify what is not working inside the company and then develop an action plan to solve the problem. Griffith (YEAR) explained that Baldrige criteria not only contributes to the service provided to the client but also helps improve the financial health of the company [12]. The Baldrige criteria are related to all parts of a company such as the strategy, operations and service. It is also directly related to their financial situation as having the best service and optimized operations will result in more satisfied customers and lower operational costs. In addition, the strategies that will be developed to address opportunities for improving operations will also improve the work environment for employees and improve organizational results. This structured procedure is one of the main reasons why Baldrige is essential for organizational effectiveness and has created a positive impact for many companies. However, many companies experience significant challenges when implementing the self-assessment process and report that they are not able to obtain these benefits [4-9]. This has led to a research area focused on identifying the factors that affect successful implementation of the Baldrige self-assessment process.

Implementation Success Factors

Although many authors claim that implementing the Baldrige criteria will improve organizational performance, a review of the literature shows that many attempts face significant challenges and most do not obtain the expected results. Researchers have reported many factors that affect successful implementation in different environments. For example, Ryan (2004) implemented the Baldrige criteria to improve performance of healthcare organizations for 14

years [10]. One of the most important findings from their work was that they “were careful never to describe ‘continuous quality improvement’ as a program”. This is because they assert that Baldrige should become a culture, not a program in order to be successful [10]. Healthcare is one of the most challenging industries to conduct continuous improvement projects because of the complexity of these organizations. However, with the Baldrige criteria they were able to improve operations to provide better service, to better understand the clients/customers, and to improve their financial situation. Many factors helped them during the implementation of the Baldrige criteria. The first and most important was leadership. Training employees and having someone that takes the time to have meetings with each one of the employees either in a group or alone was an essential part of the process. In addition to this, the findings showed the other two most important dimensions were workforce and customer. The focus was on what motivates the employees or the customers to be loyal to the company [10]. Ryan explained that it is essential to have motivation and a clear goal and emphasized engaging with all employees regardless of position to achieve success.

In their article about the importance of Baldrige to the US economy, Townsend and Gebhardt (1996) state that successful organizations have “... made quality a part of everything they do” [11]. The reason why this is an essential part of this procedure is that when companies first implement the Baldrige criteria, they experience different difficulties, are unfamiliar with the framework, and doubt the potential benefits of the exercise. The authors also state that there were “... at least two major types of rifts in the quality community”. These two problems are the primary key to success in implementing the Baldrige criteria. By building a performance

excellence culture, they work hard to understand their customers, workforce, leadership, and processes. They also identified leadership as a critical factor for success where having someone that facilitates and show the route that should be taken provides structure and consistency during this complex process. Their findings support the argument that the Baldrige criteria is more of a lifestyle that they needed to adopt rather than a one-time project.

Jones (2014) stated the importance of using statistical tools to determine if a management program is a success [7]. They used Analysis of Variance (ANOVA), regression modeling, and a decision tree as the main tools to understand and gather evidence for whether the seven steps described by Baldrige are successful. The ANOVA and the regression analysis results suggested that the most critical dimension to use is measurement, analysis and knowledge management. These tools provided statistically significant evidence that measurement, analysis and knowledge management activities have the biggest impact on a company and that it has the strongest correlation with the success of the company. On the other hand, the decision tree emphasized the importance of leadership and the use of technology. Their results showed that an effective leader is one that knows how to facilitate, govern and built a good relationship with customers, employee and suppliers. Also, technology brings a sense of credibility for customers as well as providing a more convenient experience.

Stephens (2005) not only viewed Baldrige as a way of improving big corporations but also as a way to help smaller companies. In his research, the main goal was to understand why small businesses were not as active in Baldrige activities as big companies. Stephens states that many

of the small firms think that Baldrige is too complex, and it is costly to implement. Hence, Baldrige is not accessible to small businesses. However, the author also mentions the importance that these criteria have on small companies and that it can help them grow. The author also mentions that most managers think that implementing this Criteria will not be applicable for their business. However, during the research presented, they confirm that the Baldrige criteria can be implemented in any business.

Finally, Barba Marsh (1994) researched why many small companies were not applying to the Baldrige Award. Many of the reasons the author mentions are related to the cost of acquiring the Award. The cost is high compared to how a small company works. Besides, the process is time consuming which makes it harder to implement and tedious. However, the author also mentions that many companies "once viewed a Baldrige Award as the ultimate goal of their quality program." [6] meaning that many small companies were looking forward to obtaining this award. Nevertheless, because of the different obstacles experienced in daily operations, this was becoming harder to obtain.

METHODOLOGY

The purpose of this study was to conduct an initial Baldrige Self-Assessment in a small business with no prior exposure to the Baldrige criteria and investigate factors that affect success. This study utilized an action research approach that consisted of conducting a series of online workshops and surveys to facilitate a partner organization in implementing the self-assessment. The researchers collected responses from the case organization representatives and completed the self-assessment providing insights and recommendations for improvement.

Research Questions

This study is focused on the barriers and facilitators that organizations (in particular, small businesses) experience when implementing the Baldrige criteria. Defining successful implementation of the framework and identifying the success factors will support the development of strategies to ensure success, which will make the reported benefits of adopting the Baldrige criteria accessible to more organizations. The following research questions have been defined for this study:

1. How can successful implementation of the Baldrige criteria be assessed?
2. What are the factors that affect successful implementation of the Baldrige criteria?

The action research project will provide empirical evidence to address these two questions by documenting the implementation of the Baldrige criteria in a small business. In addition, the overall success of the implementation effort will be assessed.

Action Research Procedure

The action research project consisted of three online surveys and four online meetings (i.e., the initial meeting, two workshops, and the final meeting to present the results) as summarized in Figure 2. Once the case organization had been recruited, an initial ‘Getting Started’ survey was conducted, which consisted of 73 closed questions designed to get an initial understanding of the company, identify key terminology or concepts that should be clarified before conducting the self-assessment, and obtaining initial perceptions of the implementation process. The results of this survey were compared to other companies using the online database provided by National Institute of Standards and Technology (NIST). This provided a summary of how the case organization compared to other for-profit business regarding their familiarity with key concepts and terminologies as well as the formality of the business.

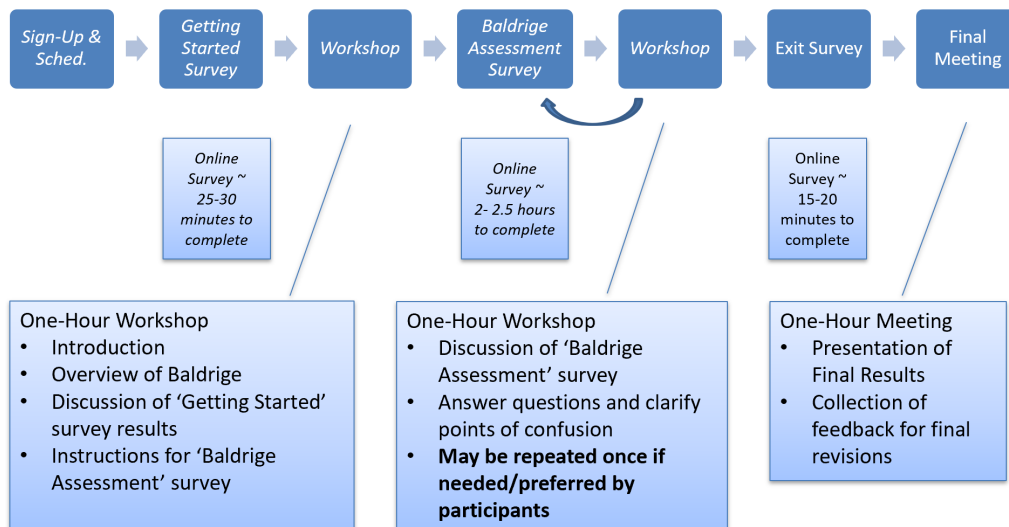


Figure 2. Action Research Approach Overview

Based on the answers provided, the next step was meeting with the company. The meeting was centered on explaining the Baldrige criteria and the uses of it in industry. Further, results from the Getting Started Survey were discussed including clarifying any areas of confusion or questions by the participants. Finally, detailed instructions for completing the second survey (i.e., the Baldrige Assessment Survey) were discussed.

After completing the initial meeting, the next step was for all participants to take the Baldrige Assessment Survey. The assessment survey contains 128 open-ended questions that were adapted from the Baldrige Excellence Builder provided by NIST and focused on describing the company according to the seven dimensions (Appendix D). The Baldrige Assessment Survey remained accessible to participants for three weeks and was able to be edited allowing them to revise their responses. Two informal, online workshops were conducted for the participants to talk about questions that they did not understand or that they had a hard time responding to.

Once the participants were satisfied with their responses, the researchers evaluated the self-assessment by scoring each question and section of the Baldrige Assessment Survey according to the evaluation guidelines provided by NIST. The evaluation began with evaluating each question and section to determine if it was *reactive*, *early*, *mature*, or a *role model*. Reactive refers to a company that does not address or is only starting to address the item or criteria. Early is associated with having addressed the item or criteria but not using them correctly. Mature is when the organization has adequately addressed all items or criteria as part of their routine operations but there is still room for improvements. Lastly, Role Model indicates that the

organization has perfected their approaches to each of the items or criteria and can serve as examples of best practices for other organizations. Finally, the ratings were transformed into a percentage progress according to the NIST guidelines. This rating process was conducted by two researchers and then the results were compared and any significant difference in rating was discussed. Finally, the ratings were averaged to develop the final score for each criterion.

The results were evaluated to identify strengths and opportunities for improvement for the case organization. The final results and recommendations were then documented as a final report and presented to the participants in a final meeting. The recommendations included possible solutions the company could implement as well as references and instructions to guide them. Finally, the participants were given the Exit Survey, which was developed by the researchers to collect quantitative and qualitative data regarding the factors that affect the implementation of the Baldrige criteria as well as their perceptions of overall success (Appendix E). This survey consisted of several questions and is described in more detail in the following section.

Survey Development

Three surveys were used to conduct the self-assessment, which were created using the UCF Qualtrics service. The use of Qualtrics UCF brought to the research a significant advantage in the sense of analysis of the data. On the platform, the data was explicit and better to be understood. However, the first thing that was needed, is to learn how to use the program. Qualtrics is an easy program to be learned, the tools that provide the platform are explicit in all the program. Each survey created in the program took around an hour because of the time consuming on copying

and pasting each question on the platform. But the time invested copying all the questions on Qualtrics was recompensated with the distribution and acquiring all the results from the company. The results presented were precise and were comfortable for the investigation to be used. The first two surveys were primarily adapted from existing surveys provided by NIST. However, the third survey was developed by the research team to directly evaluate the factors that affected the implementation of this Baldrige criteria.

The first survey was the Getting Started Survey. The first survey was directed at getting to know the company. The questions were more based on if the company thought that the questions that they were asked were easy or hard to answer or if they could answer the question. Besides these questions, there was a section that was related to what do they think about Baldrige or if they had any previous knowledge. These last questions were necessary for the research because here is where the researchers measured how hard the assessment will be to the company. The survey consisted of questions similar to those on the Excellence Builder but had a three-point rating system (i.e., easy to answer, could answer, and difficult to answer) making this a quick way to assess the case organizations' level of familiarity with key concepts and terminology.

On the other hand, the second survey "Baldrige Assessment Survey" was concentrated in the company, questions about the operations of the company. In this opportunity, the company had to explain all about what they do, how they do it, why they do it, and how their strategies are working to accomplish their primary goals. To complete the survey the company and the researchers had to go over some informal meetings where the researchers guide the company on

how to answer the numerous questions that were proposed. The questions were taken from the Baldrige Criteria. However, the questions that were used were not all of the ones proposed by Baldrige. The reason the studied thought that the use of all questions was not necessary is because of the size of the company and the complexity it had.

The last survey, the Exit Survey consisted of four Likert-scale questions and three open-ended questions. Likert scale is a type of response used to understand the opinion of the person taking the survey. Here the responses are usually divided into five answers. Where they have both limits, one that will be very satisfied or strongly, agree, to very unsatisfied or strongly disagree, to have a neutral response. These questions were concentrated on the perspective that the participants had of the Baldrige criteria, whether they thought the implementation had been successful, and their perception of factors that either supported or served as barriers to the process. Further, the researchers also assessed how much they learned from the assessment.

These three surveys had an essential impact on the research by allowing the process to be consistent and to have a formal structure as well as providing the information needed to complete the self-assessment scoring from NIST. Each survey is providing the research with a better understanding of the position the company has compared to others and what should be improved. With the results provided the study will have an idea on how to guide the company implement and understand the things that they are not doing correctly. It is also for this reason that the scoring method is important because here is where the project identified where the company is

related to business management. The scoring provided for each section will also provide a view to the company on knowing what they are doing wrong and they might not see it.

Case Organization

The recruitment process consisted of using a Project Description flyer (Appendix A and B) that provided information related to the project and was provided via email to potential case organizations. The selection of the company took over three months during which time potential partner organizations were evaluated and screened for participation. The primary selection criteria consisted of 1) the company selected must be a small business and 2) that they did not have any experience with the Baldrige criteria or Self-Assessment procedure. The partner company selected would also need to commit to the series of surveys and online workshops.

The company studied is a company that did not have any previous knowledge in Baldrige. It is a company that started from the garage many years ago. The main focus of the company is on serving the local population and providing general repair services. The way they have been improving is with the help of different conferences and training that the manager has been. The company study is structured by 15 employees, where they have two managers that have been in the company since day one. The managers are in charge of all the logistics that the company has, starting on hiring the correct people to organize the training and conference some of the employees should go.

The company studied has a unique characteristic, and it is related to the way they care for their employees as well as for their customers. They recognized this company as a place where their quality is unique and incomparable. It is essential to mention this because when looking for a company, researchers were looking for a company where they do care about their employees and the customers. These two aspects were a highlight of the company selected, and that is the reason why it was selected. Besides, the study was done with the two managers of the company making the study more relevant because of the knowledge they had over the company.

RESULTS

The self-assessment took approximately five weeks to complete from the time that the case organization was recruited until the final presentation of results and recommendations. The following sub-sections describe the results of each of the three surveys followed by a discussion of the results and recommendations in the following section.

Getting Started Survey Results

As described previously, the Getting Started Survey was conducted first to get an initial assessment of the level of formalization of the case organization and how familiar the participants were with key terminology and concepts. The participants rated each question on how easy it would be for them to answer that question and the results were compared to other organizations using the NIST database. The areas where the case organization scored high compared to other companies included workforce and some questions from Organizational relationships.

When looking to the areas that they had an excellent performance were more related to the organizational relationships. There was a question in particular that they did not know how to answer, and many other companies did not know. The question was, "What are your key market segments, customer groups, and stakeholder groups, as appropriate? " and only 21% said that they think this question was easy to answer. The reason why this is important for the company is that they do know the importance of managing their market correctly.

Another area where the company had an outstanding result was with the workforce. They do care about their employees. There was a question in particular where they agree, and many other companies did not agree. The question was, "Our leadership team encourages and enables our employees to develop their job skills so they can advance in their careers. " The question implies that the company does care about the development of the employees and encourage them to continue growing. Because they care for their employees, the retention will be higher because of the possibilities they provide them.

The analysis primarily focused on areas where the case organization scored very low, which indicated that the questions were very difficult to answer, may result from either a low-maturity system or process or a lack of understanding of the terminology or concepts. Some of the main areas of weakness included low rates on the questions answered, compared to other companies as summarized in Table 1.

Dimension	Percentage	Description
<i>Organizational Relationships</i>	21%	In this section of the survey, the company studied the question, "What are your key market segments, customer groups, and stakeholder groups, as appropriate?" that it was easy to answer. However, when comparing this answer to other companies, only 21% thought that they could answer this question
<i>Competitive Environment</i>	22%	For this section of the survey, the company had a hard time, or they selected it as a difficult question to answer. Half of these questions were selected as "Difficult to answer." The percentages were between 16 and 22 percent compared to other companies. These imply that not many companies thought that this was a hard or difficult question to answer.

<i>Leadership</i>	8%	For this section, the answers had a low percentage compared to other questions. The lower percentage was 8% in the disagreement answer. This could be used as an outlier to the comparison to other companies.
<i>Strategy</i>	25%	Most of the answers provided in this section were below 25%, and three out five had were selected as disagree. This section will have an impact on the process because most of the companies compared did agree.

Table 1. Summary of Areas of Concern from the Getting Started Survey

These areas were addressed in the first meeting materials and discussed with all participants during the first meeting to resolve any points of confusion. The instructions for completing the next survey were also discussed to ensure that participants were comfortable providing all necessary data.

Baldrige Assessment Survey Results

After completing the first survey and initial meeting, participants from the case organization began working on the Baldrige Assessment Survey. This survey consisted of the seven sections discussed by NIST and the results provided a better understanding of the case organization. The participants were given one week to work on the survey and then the first workshop was held to discuss their progress, address any questions or points of concern, and facilitate discussions among the participants. The participants were then given a second week to continue to refine their answers on the survey and then the second workshop was held to, again, resolve any points of confusion and facilitate discussion among the participants. Participants were then given a third week to finalize their answers before the results were submitted for evaluation. The results were

scored following the evaluation guidelines provided by NIST and several areas of strength and opportunities for improvement were identified.

The first value was an organizational profile. In this area, there were questions wholly directed to describing the company such as the way they work, their main products, and where do they see themselves in the future. The average percentage they had in this area was 49% according the scoring of Baldrige, which is considered an ‘early’ stage of development. Leadership is the second dimension addressed. This area had a meaningful impact on this research because of the low score, indicating that the company is only in the company is still ‘reactive’ in this dimension. There were three out of 11 questions were the company scored less than 25% and the remainder were lower than 50%. Although this company has been operating successfully for many years, they do not have a formal leadership structure and are not purposeful about their leadership activities. The next section was the strategy, which also had an essential impact on this research because it was the lowest scoring dimension. The section as an average scored 40% which implies that the company has weak strategic planning. There were three out of twelve questions that they had below 30% and were determined to be ‘reactive’ in this category as well. However, in the customer section, they had the highest score from the seven dimensions with a score of 60%. This section had three out of ten that were denoted as ‘mature’ emphasizing the care and importance the company has for the customers.

Measurement, analysis, and knowledge management had neutral scoring. The section had an average score of 52%, which means that many of the questions were established as an “Early”

approach from the Baldrige criteria. In this area, the section of operation had similar behavior, where the average score was 51%, and it was determined to be “mature” for most of the questions. The category that had the most significant amount of questions with a ‘mature’ rating was the workforce — having around seven out of twelve, above 55%. However, the reason this category was not the highest one of all is that it also had a few questions that were rated as ‘early’. Lastly, for the results questions, their average score was 58%. The section was indicated as one of the highest along with the workforce. These two sections are connected to each other and also demonstrate the culture and nature of this company, which is operations, customer, and employee focused.

The results were also used to identify several recommendations for future projects that the case organization could consider to improve the dimensions that were scored as ‘early’ or ‘reactive’.

The recommendations consisted of:

- Strategy
 1. Complete the Business Model Canvas
 2. Complete a SWOT, SIPOC, and Five Forces Analysis
- Leadership
 1. Assess leadership style and effectiveness (conduct internal surveys such as MLQ 360)
 2. Assess and describe Organizational Culture

Along with these recommendations, the researchers also provided the case organization with resources to support their future efforts. Further, this process familiarized the participants with

the Baldrige criteria as well as many other relevant terminologies and concepts that they can leverage to continue to improve the organization over time.

Exit Survey Results

The Exit Survey collected quantitative and qualitative data from the participants regarding their perceptions of implementation success and the factors that affected their efforts. The participants described successful implementation as having the tools to know be available to implement Baldrige in their company. However, with the collaboration of a facilitator, this implementation will be much easier for the company because, as they stated in the exit survey, answering the questions from the Assessment was much more comfortable when they had someone to help them understand what it was asked.

Factors that they identify as necessary were the language barriers they had with the Baldrige assessment. The language barriers that they had were more in the sense of not understanding what the Assessment was trying to ask. Having questions that took them over hours to figure out what the questions are trying to imply or ask. Besides, there were questions that the company mentioned that they were not directly relevant to the company because of the size and or type of business. The company implied that the Assessment became tedious and hard to answer because of the language barriers they had.

Completing the Assessment with a facilitator made the path more accessible. Also, there were answers related to the knowledge the company acquired during the process. Two informal

meetings made the process or the company much easier by explaining each section of the Assessment. The company expressed the enormous advantage a company would have if it had a facilitator. The reasons the company provided were more guided to the understanding of the questions and having the opportunity to clarify things that they did not understand.

They do feel more comfortable doing a Baldrige assessment and open to know more about it. The company also expressed that now they are more aware of what they need to improve, and the company is willing to continue learning on the different tools that they could acquire to improve. This leads the research to have an open door to help the company improve the areas that the study found that need more work. Also, it helped the company to see how many resources that they could use day by day to improve.

CONCLUSIONS

Having a company where they care about how the employee feels, their opinion, and their ideas creates an environment where people would like to work. The company studied in this research had a meaningful impact on the employees by providing them with training, workshops, and conferences. Even though it was a small company, their investment in the employees was meaningful. They did understand that if the company had qualified employees it will have excellent retention of the customers.

However, there were several factors identified that were affecting the implementation of Baldrige. Language barriers and interpretation of the questions were factors that influence the implementation and the completion of the assessment. The terms used by Baldrige were not the most appropriated for small businesses because of the complexity. However, the case organization did mention that while completing the surveys, it was essential to do it in a group. Completing the survey with someone that knew the company was much easier because they were able to discuss the questions and figure out what Baldrige was asking. Besides, the use of assistance during the completion of the Baldrige assessment was another factor the company identifies as a supporting factor. Completing the assessment with someone that understood the questions and what they were asking was an essential part of the process. Making the process much more comfortable and allowing the company to correctly answer the questions.

The study provides empirical evidence of factors that affect the use of Baldrige in a small business. Although the results are not generalizable, they give some indication of the factors that

must be addressed for a small business to complete this process. The results provide additional evidence for the argument that a specialized version of the Baldrige is needed for small businesses that uses language appropriate for that context.

Limitations and Future Work

The main limitations of this study are that only one organization was studied so the results may not be generalizable. This company was very committed to their employees and had an organizational culture that supported the implementation. Future work should also focus on small businesses that with different organizational cultures, such as those with high turnover. Another limitation was that this study only included two management-level participants. Future work should expand this to include other key individuals from different areas of the company. Finally, the assessment was limited to the initial assessment (excellence builder) and the study should be expanded to consider implementation of the full self-assessment process.

APPENDIX A: Study Documents

Invitation email

Subject: Invitation to Participate in a Research Study

Body:

Hello, you are invited to participate in a research study to guide a company that is not familiar with the Baldrige Criteria through a self-assessment to evaluate their operations and identify areas for improvement. In addition, this work aims to assess the factors that affect whether a company is successful in completing the self-assessment process. Understanding the challenges and enablers encountered during this process will support the development of implementation success strategies and help to make the potential benefits of the Baldrige self-assessment process accessible to more organizations.

You have been identified as a potential participant in this study, which consists of three online surveys and three one-hour virtual workshops held via Skype or phone. Participating organizations must provide at least one organizational member to participate but are invited to identify 2-4 members for this study. Participating organizations will receive a self-assessment report that describes the current state of the organization and identifies areas for improvement. In addition, the research team will prepare a formal presentation for the partner organization to summarize key findings.

To learn more about the project or the Baldrige self-assessment process, please see the attached Study Information Sheet. If you have any questions about this study, please contact us using the contact information listed below. If you have any questions about rights as a research participant or have concerns about the conduct of this study, please contact the University of Central Florida Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email irb@ucf.edu.

Regards,

Dr. Heather Keathley
Assistant Professor, Principal Investigator
University of Central Florida
Heather.Keathley@ucf.edu
407-823-4745

Valentina Parra Alvarez
valen1526@knights.ucf.edu

APPENDIX B: Study Information Sheet

Guided Baldrige Performance Excellence Assessment

Principal Investigator: Heather Keathley, Ph.D.

Student Investigator: Valentina Parra Alvarez

Honors in the Major Undergraduate Research

Industrial Engineering & Management Systems

University of Central Florida

Members of the Industrial Engineering & Management Systems (IEMS) department at the University of Central Florida (UCF) are **seeking potential organizational partners** to conduct a Baldrige self-assessment and identify strategies for organizational improvement.

The Baldrige Performance Excellence Model

In recent years, companies have been focused on improving organizational performance and the loyalty of customers. The Baldrige Performance Excellence model was created to guide professionals in achieving these goals including defining a set of excellence criteria and offering an award program for high-performing organizations. The principles of excellence consist of understanding and working for the stakeholders, improving performance and quality management, and strategically driving continuous improvement. The Baldrige framework has nine essential dimensions, as shown in the figure below.



Baldrige Performance Excellence Framework [1]

The framework can be used for organizational self-assessments; however, many organizations find it challenging to interpret and apply the criteria without prior knowledge of the framework and guiding principles. Therefore, one critical factor of success is guidance from an experienced assessor.

UCF Honors in the Major Research

Valentina Parra Alvarez is a third-year undergraduate student in IEMS and is participating in the Honors in the Major (HIM) program. This program engages exceptional students in undergraduate research by funding a two-semester project that allows the student to explore an area of interest. This topic was chosen as Valentina plans to specialize in organizational function and effectiveness and the Baldrige is one of the most widely-recognized frameworks to guide organizational improvement. This project will also provide her with important experience working with professionals to improve organizational performance. Valentina is working with Dr. Heather Keathley who is an Assistant Professor in the IEMS department with relevant experience in performance management and organizational improvement.

Proposed Project

This team is seeking partner organizations that are interested in applying the Baldrige criteria to identify strategies for improvement but are not familiar with the framework. **The primary objective of this project is to work with partner organizations to conduct the Baldrige self-assessment, interpret the results, identify key gaps, and propose strategies for improvement.** The team will conduct a series of three surveys (that range from 15 minute to approximately 2 hours to complete) and three one-hour workshops to complete the assessment and will work with the partners to determine the value of deeper studies such as focus groups or surveys with employees.

The outcome of this project will be a self-assessment report that describes the current state of the organization and identify areas for improvement. In addition, the research team will compare the results of this self-assessment to similar organizations that have received the Baldrige Award in previous years to provide a benchmark for performance. This report will also include potential strategies to address any identified weaknesses. If desired, the team will also work with the partner organizations to develop an implementation and continuous improvement plan. Finally, the research team will prepare a formal presentation for the partner organization to summarize key findings.

The project timeline is September and October of 2019. Participants are currently being selected and the assessment project will be completed over the next six to eight weeks with the final report and presentation provided in November, 2019.

Interested in Participating?

If you are interested in participating or would like to learn more you may contact Valentina or Dr. Keathley via the contact information listed below. All project activities will be overseen by the UCF HIM program administration and by the UCF Institutional Review Board.

Valentina Parra Alvarez
valen1526@knights.ucf.edu

Dr. Heather Keathley
Heather.Keathley@ucf.edu
407-823-4745

For questions regarding the HIM program:
Burnett Honors College
407-823-2076

APPENDIX C: Getting started survey

Successful Implementation of the Baldrige Performance Excellence Program

Principal Investigator: Heather Keathley, Ph.D.
Student Investigators: Valentina Parra Alvarez

You are being invited to take part in a research study. Whether you take part is up to you.

The primary objective of this project is to guide a company that is not familiar with the Baldrige Criteria through a self-assessment to evaluate their operations and identify areas for improvement. In addition, this work aims to assess the factors affecting the implementation process as well as overall implementation success. Understanding the challenges and enablers encountered during this process will support the development of implementation success strategies and help to make the potential benefits of the Baldrige Self-Assessment process accessible to more organizations.

You have been identified as a potential participant in this study, which consists of three online surveys and three one-hour virtual workshops held via Skype or phone. This is the first of the three surveys, which focuses on conducting an initial evaluation of your company that will be used to prepare materials for the first one-hour workshop. This survey will help to identify terminology or topics that you or your company are not familiar with and provide an introduction to the Baldrige Performance Excellence Program.

This survey should take approximately 25- 30 minutes to complete. It is important to note that all responses are anonymous and only aggregate results will be used for the analysis ensuring that no individual participants' responses are identifiable.

You must be 18 years of age or older to take part in this research study.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints please contact: Dr. Heather Keathley, Assistant Professor, Industrial Engineering & Management Systems, College of Engineering & Computer Science, (407) 823-4745.

IRB contact about your rights in this study or to report a complaint: If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email irb@ucf.edu.

If you would like to complete the survey please click *Begin* below. Otherwise, you may close the browser window to exit the survey.

Page Break

Baldrige Assessment – Getting Started Survey

Instructions: Please complete the following survey to the best of your ability. The purpose of this survey is to get an understanding of how your company operates and it is important to note that there are no right answers to any of these questions. You are also free to skip any question that you are not comfortable answering. Responses will be used to create a more detailed action plan for the assessment by identifying topics and terminology that should be clarified. Further information about the Baldrige Performance Excellence Program and the assessment process will be provided during the first one-hour workshop.

This survey consists of three sections

1. **Baseline Evaluation:** 32 questions that provide an initial introduction to the Baldrige Criteria as well as an initial evaluation to guide the self-assessment process.

2. **Are We Making Progress?** 40 questions focused on gaining a better understanding of how your company operates.
3. **Implementing the Baldrige Self-Assessment:** XX questions

Page Break

Section 1 – Baseline Evaluation

This section contains a series of questions to gain a better understanding of how your organization operates and what terminologies or topics should be discussed during the first one-hour workshop. Please read each question and consider how difficult it would be for you to answer. It is important to note that we are only interested in **your opinion of how easy these questions are to answer**. You do not have to answer these questions at this time (we will work through these topics in a separate survey)

Organizational Environment	Easy to Answer	Could Answer	Difficult to Answer
What are your main product offerings?	1	2	3
What is the relative importance of each to your success?	1	2	3
What mechanisms do you use to deliver your products?	1	2	3
What are your mission, vision, and values?	1	2	3
Other than values, what are the characteristics of your organizational culture, if any?	1	2	3
What are your organization’s core competencies, and what is their relationship to your mission?	1	2	3
What is your workforce profile?	1	2	3
What recent changes have you experienced in workforce composition or in your needs with regard to your workforce?	1	2	3
What are your workforce or employee groups and segments?	1	2	3
What are the educational requirements for different employee groups and segments?	1	2	3
What are the key drivers that engage them?	1	2	3
What are your organized bargaining units?	1	2	3
What are your organization’s special health and safety requirements?	1	2	3
What are your major facilities, equipment, technologies, and intellectual property?	1	2	3
What are the applicable occupational health and safety regulations; accreditation, certification, or registration requirements; industry standards; and environmental, financial, and product regulations?	1	2	3
Organizational Relationships	Easy to Answer	Could Answer	Difficult to Answer
What are your organizational leadership structure and governance structure?	1	2	3
What structures and mechanisms make up your organization's	1	2	3

leadership system?			
What are the reporting relationships among your governance board, senior leaders, and parent organization, as appropriate?	1	2	3
What are your key market segments, customer groups, and stakeholder groups, as appropriate?	1	2	3
What are their key requirements and expectations of your products, customer support services, and operations, including any differences among the groups?	1	2	3
What are your key types of suppliers, partners, and collaborators?	1	2	3
What role do they play in producing and delivering your key products and customer support services, and in enhancing your competitiveness?	1	2	3
What role do they play in contributing and implementing innovations in your organization?	1	2	3
What are your key supply-network requirements?	1	2	3
Competitive Environment	Easy to Answer	Could Answer	Difficult to Answer
What are your relative size and growth in your industry or the markets you serve?	1	2	3
How many and what types of competitors do you have?	1	2	3
What key changes, if any, are affecting your competitive situation, including changes that create opportunities for innovation and collaboration, as appropriate?	1	2	3
What key sources of comparative and competitive data are available from within your industry?	1	2	3
What key sources of comparative data are available from outside your industry?	1	2	3
What limitations, if any, affect your ability to obtain or use these data?	1	2	3
Strategic Context & Performance Improvement System	Easy to Answer	Could Answer	Difficult to Answer
What are your key strategic challenges and advantages?	1	2	3
What is your performance improvement system, including your processes for evaluation and improvement of key organizational projects and processes?	1	2	3

Page Break

Section 2 – Are we making progress?

This section contains 40 questions to learn more about how your company operates. Please read each statement and then indicate how much you agree or disagree. Similarly to the previous section, it is important to note that there are no right answers to any of the questions, you are free to skip any question that you do not feel comfortable answering, and we will only use anonymized, aggregate results (i.e., no individual responses will be identified).

Leadership	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Our workforce knows our organization's mission (what we are trying to accomplish).	1	2	3	4	5
Our workforce knows our organization's vision (where it is trying to go in the future).	1	2	3	4	5
Our leadership team is ethical and demonstrates our organization's values.	1	2	3	4	5
Our leadership team creates a work environment that helps our employees do their jobs.	1	2	3	4	5
Our leadership team shares information about the organization.	1	2	3	4	5
Our leadership team asks employees what they think.	1	2	3	4	5
Strategy	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
As our leadership team plans for the future, we ask our employees for their ideas.	1	2	3	4	5
Our organization encourages totally new ideas (innovation).	1	2	3	4	5
Our employees know the parts of our organization's plans that will affect them and their work.	1	2	3	4	5
Our employees know how to tell if they are making progress on their workgroup's part of the plan.	1	2	3	4	5
Our organization is flexible and makes changes quickly when needed.	1	2	3	4	5
Customers	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Our employees know who their most important customers are.	1	2	3	4	5
Our employees regularly ask their customers what they need and want.	1	2	3	4	5
Our employees ask if their customers are satisfied or dissatisfied with their work.	1	2	3	4	5
Our employees are allowed to make decisions to satisfy their customers.	1	2	3	4	5
Our employees also know who our organization's most important customers are.	1	2	3	4	5
Measurement, Analysis, and Knowledge Management	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Our employees know how to measure the quality of their work.	1	2	3	4	5
Our employees use this information to make changes that will improve their work.	1	2	3	4	5
Our employees know how the measures they use in their work fit into our organization's overall measures of improvement.	1	2	3	4	5
Our employees get all the information they need to do their work.	1	2	3	4	5
Our employees know how our organization as a whole is doing.	1	2	3	4	5

Workforce	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Our employees cooperate and work as a team.	1	2	3	4	5
Our leadership team encourages and enables our employees to develop their job skills so they can advance in their careers.	1	2	3	4	5
Our employees are recognized for their work.	1	2	3	4	5
Our organization has a safe workplace.	1	2	3	4	5
Our managers and our organization care about our workforce.	1	2	3	4	5
Our workforce is committed to our organization's success.	1	2	3	4	5
Operations	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Our employees can get everything they need to do their jobs.	1	2	3	4	5
Our organization has good processes for doing its work.	1	2	3	4	5
Our employees can improve their personal work processes when necessary.	1	2	3	4	5
Our organization is prepared to handle an emergency.	1	2	3	4	5
Results	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Our employees' work products meet all requirements.	1	2	3	4	5
Our employees' customers are satisfied with their work.	1	2	3	4	5
Our workforce knows how well our organization is doing financially.	1	2	3	4	5
Our organization has the right people and skills to do its work.	1	2	3	4	5
Our organization removes things that get in the way of progress.	1	2	3	4	5
Our organization obeys laws and regulations.	1	2	3	4	5
Our organization practices high standards and ethics.	1	2	3	4	5
Our organization helps our employees help their community.	1	2	3	4	5
Our employees believe our organization is a good place to work.	1	2	3	4	5

Page Break

Section 3 – Implementing the Baldrige Self-Assessment

This section focuses on your opinions and attitudes about conducting the Baldrige self-assessment process. It is important to note that we are interested in your current opinions based on your participation in the study so far and there are no right answers to any of these questions.

How familiar are you with the Baldrige Performance Excellence Program?

1. Not at all familiar
2. Slightly familiar
3. Somewhat familiar
4. Moderately familiar
5. Very familiar

How familiar are you with the Baldrige self-assessment process?

1. Not at all familiar
2. Slightly familiar
3. Somewhat familiar
4. Moderately familiar
5. Very familiar

Based on your current understanding of the self-assessment process, how difficult do you think it will be to complete?

1. Very easy
2. Easy
3. Neutral
4. Difficult
5. Very difficult

Based on your current understanding of the self-assessment process, how likely is it that you or your team will encounter challenges or barriers during the process?

1. Very unlikely
2. Unlikely
3. Neutral
4. Likely
5. Very likely

What barriers or challenges, if any, do you expect to encounter during the self-assessment process?

On the other hand, what do you think will help you be successful during the self-assessment process?

To what extent do you agree that conducting a Baldrige self-assessment will help you to improve your company?

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

What do you hope to gain from conducting the Baldrige self-assessment?

Page Break

Final Comments

This concludes the first survey. We will evaluate the results and prepare discussion points for the first one-hour workshop. Please feel free to (anonymously) share any other questions, comments, or concerns with us below:

Thank you for your time and consideration – please click *Submit Survey* to submit your response.

APPENDIX D: Baldrige Assessment Survey

Successful Implementation of the Baldrige Performance Excellence Program

Principal Investigator: Heather Keathley, Ph.D.

Student Investigators: Valentina Parra Alvarez

You are being invited to take part in a research study. Whether you take part is up to you.

The primary objective of this project is to guide a company that is not familiar with the Baldrige Criteria through a self-assessment to evaluate their operations and identify areas for improvement. In addition, this work aims to assess the factors affecting the implementation process as well as overall implementation success. Understanding the challenges and enablers encountered during this process will support the development of implementation success strategies and help to make the potential benefits of the Baldrige Self-Assessment process accessible to more organizations.

You have been identified as a potential participant in this study, which consists of three online surveys and three one-hour virtual workshops held via Skype or phone. This is the second of the three surveys, which consists of many questions to gather more information about your organization to provide data for the self-assessment. The results of this survey will be used to conduct the self-assessment.

This survey should take approximately 2- 2.5 hours to complete. It is important to note that you will be able to save your progress and return to the survey to continue editing as much as needed over the next week. Similar to the previous survey, all responses are anonymous and only aggregate results will be used for the analysis ensuring that no individual participants' responses are identifiable.

You must be 18 years of age or older to take part in this research study.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints please contact: Dr. Heather Keathley, Assistant Professor, Industrial Engineering & Management Systems, College of Engineering & Computer Science, (407) 823-4745.

IRB contact about your rights in this study or to report a complaint: If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email irb@ucf.edu.

If you would like to complete the survey please click *Begin* below. Otherwise, you may close the browser window to exit the survey.

Page Break

Baldrige Assessment Survey

Instructions: Please complete the following survey to the best of your ability. This survey consists of many open-ended questions designed to help you to describe your organization and explore what is critical to your organization's success. It is important to note that there are no right answers to any of the questions and the level to which an organization is able to answer these questions may vary by characteristics such as size, sector, and location.

The results of this survey will be discussed during the second one-hour workshop, which will focus on answering participants' questions and clarifying points of confusion. You will have a chance to revisit your responses after the second workshop to complete any missing questions or revise your previous

responses. As you are answering the following questions, please note any question that you have difficulty answering and indicate those at the end of the survey.

This survey consists of eight sections:

1. Organizational Profile (32 questions)
2. Leadership (11 questions)
3. Strategy (13 questions)
4. Customers (10 questions)
5. Measurement, Analysis, and Knowledge Management (11 questions)
6. Workforce (13 questions)
7. Operations (12 questions)
8. Results (18 questions)

Note that underlined words are defined in the **Glossary of Key Terms** summarized in the table below. An electronic PDF version can also be downloaded [[HERE](#)] for easier reference.

Glossary of Key Terms	
Action plans	Specific actions that your organization takes to reach its strategic objectives. These plans specify the resources committed to and the time horizons for accomplishing the plans. See also STRATEGIC OBJECTIVES.
Alignment	A state of consistency among plans, processes, information, resource decisions, workforce capability and capacity, actions, results, and analyses that support key organization-wide goals. See also INTEGRATION.
Approach	The methods your organization uses to carry out its processes.
Collaborators	Organizations or individuals who cooperate with your organization to support a particular activity or event or who cooperate intermittently when their short-term goals are aligned with or are the same as yours. See also PARTNERS.
Core competencies	Your organization's areas of greatest expertise; those strategically important, possibly specialized capabilities that are central to fulfilling your mission or that provide an advantage in your marketplace or service environment.
Customer	An actual or potential user of your organization's products, programs, or services. See also STAKEHOLDERS.
Customer engagement	Your customers' investment in or commitment to your brand and product offerings.
Deployment	The extent to which your organization applies an approach in relevant work units throughout your organization.
Effective	How well a process or a measure addresses its intended purpose.
Ethical behavior	The actions your organization takes to ensure that all its decisions,

	actions, and stakeholder interactions conform to its moral and professional principles of conduct. These principles should support all applicable laws and regulations and are the foundation for your organization's culture and values.
Goals	Future conditions or performance levels that your organization intends or desires to attain. See also PERFORMANCE PROJECTIONS.
Governance	The system of management and controls exercised in the stewardship of your organization.
High performance	Ever-higher levels of overall organizational and individual performance, including quality, productivity, innovation rate, and cycle time.
How	The systems and processes that your organization uses to achieve its mission requirements.
Innovation	Making meaningful change to improve products, processes, or organizational effectiveness and create new value for stakeholders. The outcome of innovation is a discontinuous or breakthrough change.
Integration	The harmonization of plans, processes, information, resource decisions, workforce capability and capacity, actions, results, and analyses to support key organization-wide goals. See also ALIGNMENT.
Key	Major or most important; critical to achieving your intended outcome.
Knowledge assets	Your organization's accumulated intellectual resources; the knowledge possessed by your organization and its workforce in the form of information, ideas, learning, understanding, memory, insights, cognitive and technical skills, and capabilities.
Leadership system	The way leadership is exercised, formally and informally, throughout your organization; the basis for key decisions and the way they are made, communicated, and carried out.
Learning	New knowledge or skills acquired through evaluation, study, experience, and innovation.
Levels	Numerical information that places or positions your organization's results and performance on a meaningful measurement scale.
Measures and indicators	Numerical information that quantifies the input, output, and performance dimensions of processes, products, programs, projects, services, and the overall organization (outcomes).
Mission	Your organization's overall function.
Partners	Key organizations or individuals who are working in concert with your organization to achieve a common goal or improve performance. Typically, partnerships are formal arrangements. See also

	COLLABORATORS.
Performance	Outputs and their outcomes obtained from processes, products, and customers that permit you to evaluate and compare your organization's results to performance projections, standards, past results, goals, and other organizations' results.
Performance excellence	An integrated approach to organizational performance management that results in (1) delivery of ever-improving value to customers and stakeholders, contributing to ongoing organizational success; (2) improvement of your organization's overall effectiveness and capabilities; and (3) learning for the organization and for people in the workforce.
Performance projections	Estimates of your organization's future performance. See also GOALS.
Process	Linked activities with the purpose of producing a product or service for a customer (user) within or outside your organization.
Results	Outputs and outcomes achieved by your organization.
Segment	One part of your organization's customer, market, product offering, or workforce base.
Senior leaders	Your organization's senior management group or team.
Stakeholders	All groups that are or might be affected by your organization's actions and success.
Strategic advantages	Those marketplace benefits that exert a decisive influence on your organization's likelihood of future success. These advantages are frequently sources of current and future competitive success relative to other providers of similar products.
Strategic challenges	Those pressures that exert a decisive influence on your organization's likelihood of future success. These challenges are frequently driven by your organization's anticipated competitive position in the future relative to other providers of similar products.
Strategic objectives	The aims or responses that your organization articulates to address major change or improvement, competitiveness or social issues, and business advantages. See also ACTION PLANS.
Systematic	Well-ordered, repeatable, and exhibiting the use of data and information so that learning is possible.
Trends	Numerical information that shows the direction and rate of change of your organization's results or the consistency of its performance over time.
Values	The guiding principles and behaviors that embody how your organization and its people are expected to operate.
Vision	Your organization's desired future state.
Voice of the customer	Your process for capturing customer-related information.

Work processes	Your organization's most important internal value-creation processes.
Work systems	The coordinated combination of internal work processes and external resources that you need to develop and produce products, deliver them to your customers, and succeed in your marketplace.
Workforce	All people actively supervised by your organization and involved in accomplishing your organization's work, including paid employees (e.g., permanent, part-time, temporary, on-site, and remote employees, as well as contract employees supervised by your organization) and volunteers, as appropriate.
Workforce capability	Your organization's ability to accomplish its work processes through its people's knowledge, skills, abilities, and competencies.
Workforce capacity	Your organization's ability to ensure sufficient staffing levels to accomplish its work processes and deliver your products to customers, including the ability to meet seasonal or varying demand levels.
Workforce engagement	The extent of workforce members' emotional and intellectual commitment to accomplishing your organization's work, mission, and vision.

Page Break

Organizational Profile

The following questions are focused on describing your organization and how it functions. While completing this section, consider the following:

- What are your key organizational characteristics?
- What is your organization's strategic situation?

Organizational Environment

What are your main product offerings?

What is the relative importance of each to your success?

What mechanisms do you use to deliver your products?

What are your mission, vision, and values?

Other than values, what are the characteristics of your organizational culture, if any?

What are your organization's core competencies, and what is their relationship to your mission?

What is your workforce profile?

What recent changes have you experienced in workforce composition or in your needs with regard to your workforce?

What are your workforce or employee groups and segments?

What are the educational requirements for different employee groups and segments?

What are the key drivers that engage them?

What are your organized bargaining units (union representation), if any?

What are your special health and safety requirements, if any?

What are your major facilities, equipment, technologies, and intellectual property?

What are your key applicable occupational health and safety regulations; accreditation, certification, or registration requirements; industry standards; and environmental, financial, and product regulations?

What are your organizational leadership structure and governance structure?

What structures and mechanisms make up your organization's leadership system?

What are the reporting relationships among your governance board, senior leaders, and parent organization, as appropriate?

What are your key market segments, customer groups, and stakeholder groups, as appropriate?

What are their key requirements and expectations for your products, customer support services, and operations, including any differences among the groups?

What are your key types of suppliers, partners, and collaborators?

What role do they play in producing and delivering your key products and customer support services, and in enhancing your competitiveness?

What role do they play in contributing and implementing innovations in your organization?

What are your key supply-network requirements?

Organizational Situation

What are your relative size and growth in your industry or the markets you serve?

How many and what types of competitors do you have?

What key changes, if any, are affecting your competitive situation, including changes that create opportunities for innovation and collaboration, as appropriate?

What key sources of comparative and competitive data are available from within your industry?

What key sources of comparative data are available from outside your industry?

What limitations, if any, affect your ability to obtain or use these data?

What are your key strategic challenges and advantages?

What is your performance improvement system, including your processes for evaluation and improvement of key organizational projects and processes?

Page Break

Leadership

The following questions are focused on organizational leaders and how the organization is managed. While completing this section, consider the following:

- How do your senior leaders lead the organization?
- How do you govern your organization and make societal contributions?

Senior Leadership

How do senior leaders set your organization's VISION and VALUES?

How do senior leaders' personal actions demonstrate their commitment to legal and ethical behavior?

How do senior leaders communicate with and engage the entire workforce, key partners, and key customers?

How do senior leaders create an environment for success now and in the future?

How do senior leaders create a focus on action that will achieve the organization's mission?

Governance and Societal Contributions

How does your organization ensure responsible governance?

How do you evaluate the performance of your senior leaders and your governance board?

How do you address current and anticipate future legal, regulatory, and community concerns with your products and operations?

How do you promote and ensure ethical behavior in all interactions?

How do you consider societal well-being and benefit as part of your strategy and daily operations?

How do you actively support and strengthen your key communities?

Page Break

Strategy

The following questions are focused on describing your business strategy. While completing this section, consider the following:

- How do you develop your strategy?
- How do you implement your strategy?

Strategy Development

How do you conduct your strategic planning?

How does your strategy development process stimulate and incorporate innovation?

How do you collect and analyze relevant data and develop information for use in your strategic planning PROCESS?

How do you decide which key processes will be accomplished by your workforce and which by external suppliers, partners, and collaborators?

What are your organization's key strategic objectives and timetable for achieving them?

How do your strategic objectives achieve appropriate balance among varying and potentially competing organizational needs?

Strategy Implementation

What are your key short- and longer-term action plans?

How do you deploy your action plans?

How do you ensure that financial and other resources are available to support the achievement of your action plans while you meet current obligations?

What are your key workforce plans to support your short- and longer-term strategic objectives and action plans?

What key performance measures or indicators do you use to track the achievement and effectiveness of your action plans?

For these key performance measures or indicators, what are your performance projections for your short- and longer-term planning horizons?

How do you recognize and respond when circumstances require a shift in action plans and rapid execution of new plans?

Page Break

Customers

The following questions are focused on how you identify, attract, and maintain customers. While completing this section, consider the following:

- How do you listen to your customers and determine products and services to meet their needs?
- How do you build relationships with customers and determine satisfaction and engagement?

Customer Expectations

How do you listen to, interact with, and observe customers to obtain actionable information?

How do you listen to potential customers to obtain actionable information?

How do you determine your customers groups and market segments?

How do you determine product offerings?

Customer Engagement

How do you build and manage customer relationships?

How do you enable customers to seek information and support?

How do you manage customer complaints?

How do you determine customer satisfaction, dissatisfaction, and engagement?

How do you obtain information on customers' satisfaction with your organization relative to other organizations?

How do you use voice-of-the-customer and market data and information?

Page Break

Measurement, Analysis, and Knowledge Management

The following questions are focused on how you measure, analyze, and learn from performance information. While completing this section, consider the following:

- How do you measure, analyze, and then improve organizational performance?
- How do you manage your information and your organizational knowledge assets?

Measurement, Analysis, and Improvement of Organizational Performance

How do you track data and information on daily operations and overall organizational performance?

How do you select comparative data and information to support fact-based decision making?

How do you ensure that your performance measurement system can respond to rapid or unexpected organizational or external changes and provide timely data?

How do you review your organization's performance and capabilities?

How do you project your organization's future performance?

How do you use findings from performance reviews to develop priorities for continuous improvement and opportunities for innovation?

Information and Knowledge Management

How do you verify and ensure the quality of organizational data and information?

How do you ensure the availability of organizational data and information?

How do you build and manage organizational knowledge?

How do you share best practices in your organization?

How do you use your knowledge and resources to embed learning in the way your organization operates?

Workforce

The following questions focus on how you manage your workforce. While completing this section, consider the following:

- How do you build an effective and supportive workforce environment?
- How do you engage your workforce for retention and high performance?

Workforce Environment

How do you assess your workforce capability and capacity needs?

How do you recruit, hire, and onboard new workforce members?

How do you prepare your workforce for changing capability and capacity needs?

How do you organize and manage your workforce?

How do you ensure workplace health, security, and accessibility for the workforce?

How do you support your workforce via services, benefits, and policies?

Workforce Engagement

How do you determine the key drivers of workforce engagement?

How do you assess workforce engagement?

How do you foster an organizational culture that is characterized by open communication, high performance, and an engaged workforce?

How does your workforce performance management system support high performance?

How does your learning and development system support the personal development of your workforce members and your organization's needs?

How do you evaluate the effectiveness and efficiency of your learning and development system?

How do you manage career development for your workforce and your future leaders?

Operations

The following questions focus on how you manage operations. While completing this section, consider the following:

- How do you design, manage, and improve your key products and work processes?
- How do you ensure effective management of your operations?

Work Processes

How do you determine key product* and work process requirements?

What are your organization's key work processes?

How do you design your products and work processes to meet requirements?

How does your day-to-day operation of work processes ensure that they meet key process requirements?

How do you determine your key support processes?

How do you improve your work processes and support processes to improve products and process PERFORMANCE, enhance your core competencies, and reduce variability?

How do you manage your supply network?

How do you pursue your opportunities for innovation?

Operational Effectiveness

How do you manage the cost, efficiency, and effectiveness of your operations?

How do you ensure the security and cybersecurity of sensitive or privileged data and information and of KEY assets?

How do you provide a safe operating environment?

How do you ensure that your organization is prepared for disasters or emergencies?

Results

The following questions focus on how you define and assess organizational results. Instead of focusing on how you are performing (i.e., current performance results), describe the types of results that you evaluate. While completing this section, consider the following:

- What are your product performance and process effectiveness results?
- What are your customer-focused performance results?
- What are your workforce-focused performance results?
- What are your senior leadership and governance results?
- What are your results for financial viability and strategy implementation?

Product and Process Results

What are your results for your products and your customer service processes?

What are your PROCESS EFFECTIVENESS and efficiency results?

What are your safety and emergency preparedness RESULTS?

What are your supply-network management results?

Customer Results

What are your customer satisfaction and dissatisfaction results?

What are your customer engagement results?

Workforce Results

What are your workforce capability and capacity results?

What are your workforce climate results?

What are your workforce engagement results?

What are your workforce and leader development results?

Leadership and Governance Results

What are your results for senior leaders' communication and engagement with the workforce, partners, and customers?

What are your results for governance accountability?

What are your legal and regulatory results?

What are your results for ethical behavior?

What are your results for societal well-being and support of your key communities?

Financial, Market, and Strategy Results

What are your financial performance results?

What are your marketplace performance results?

What are your results for the achievement of your organizational strategy and action plans?

Page Break

Final Comments

This concludes the second survey. As a reminder, you are able to save your progress and return to this survey at any time to edit your responses. If you had difficulty answering any of the questions, please indicate the question number in the box below:

Please share any other questions, comments, or concerns in the box below:

Thank you for your time and consideration – please click *Submit Survey* to submit your response.

APPENDIX E: Exit Survey

Successful Implementation of the Baldrige Performance Excellence Program

Principal Investigator: Heather Keathley, Ph.D.
Student Investigators: Valentina Parra Alvarez

You are being invited to take part in a research study. Whether you take part is up to you.

The primary objective of this project is to guide a company that is not familiar with the Baldrige Criteria through a self-assessment to evaluate their operations and identify areas for improvement. In addition, this work aims to assess the factors affecting the implementation process as well as overall implementation success. Understanding the challenges and enablers encountered during this process will support the development of implementation success strategies and help to make the potential benefits of the Baldrige Self-Assessment process accessible to more organizations.

You have been identified as a potential participant in this study, which consists of three online surveys and three one-hour virtual workshops held via Skype or phone. This is the last of the three surveys, which focuses on your experience completing the Baldrige self-assessment process. This survey will help to identify potential barriers that might be faced when conducting the self-assessment and develop strategies to improve the chances of success.

This survey should take approximately 15- 20 minutes to complete. It is important to note that all responses are anonymous and only aggregate results will be used for the analysis ensuring that no individual participants' responses are identifiable.

You must be 18 years of age or older to take part in this research study.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints please contact: Dr. Heather Keathley, Assistant Professor, Industrial Engineering & Management Systems, College of Engineering & Computer Science, (407) 823-4745.

IRB contact about your rights in this study or to report a complaint: If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email irb@ucf.edu.

If you would like to complete the survey please click *Begin* below. Otherwise, you may close the browser window to exit the survey.

Page Break

Exit Survey

This survey is focused on understanding your experience during the Baldrige self-assessment process. It is important to note that we are interested in your opinions based on your participation in the study and there are no right answers to any of these questions. You are also free to skip any question that you are not comfortable answering. Similar to the previous surveys, all responses are anonymous and only collective results will be used.

How familiar are you with the Baldrige Performance Excellence Program?

1. Not at all familiar
2. Slightly familiar
3. Somewhat familiar
4. Moderately familiar

5. Very familiar

How familiar are you with the Baldrige self-assessment process?

1. Not at all familiar
2. Slightly familiar
3. Somewhat familiar
4. Moderately familiar
5. Very familiar

Based on your current experience during the self-assessment process, how difficult do you think it was to complete?

1. Very easy
2. Easy
3. Neutral
4. Difficult
5. Very difficult

To what extent did you or your team encounter challenges or barriers during the self-assessment process?

1. Not at all
2. To some extent
3. To a moderate extent
4. To a great extent
5. To a very great extent

What barriers or challenges, if any, did you experience during the self-assessment process?

On the other hand, what do you think helped you to be successful during the self-assessment process?

To what extent do you agree that conducting a Baldrige self-assessment will help you to improve your company?

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

What have you gained from conducting the Baldrige self-assessment?

Page Break

Final Comments

This concludes the third and final survey. Please feel free to (anonymously) share any other questions, comments, or concerns with us below:

Thank you for your time and consideration – please click Submit Survey to submit your response.

REFERENCES

1. Baldrige Performance Excellence Program. <https://www.nist.gov/baldrige>.
2. Masood, A. B., Selim, H., Alshare, K., Grandon, E. E., Younis, H., & Abdulla, M. (2006). The Baldrige education criteria for performance excellence framework. *The International Journal of Quality & Reliability Management*, 23(9), 1118-1157.
3. Abdulla Badri, M., Selim, H., Alshare, K., Grandon, E. E., Younis, H., & Abdulla, M. (2006). The Baldrige education criteria for performance excellence framework: Empirical test and validation. *International Journal of Quality & Reliability Management*, 23(9), 1118-1157.
4. Lee, S. M., Rho, B. H., & Lee, S. G. (2003). Impact of Malcolm Baldrige National Quality Award criteria on organizational quality performance. *International journal of production research*, 41(9), 2003-2020.
5. Stephens, P. R., Evans, J. R., & Matthews, C. H. (2005). Importance and implementation of Baldrige practices for small businesses. *The Quality Management Journal*, 12(3), 21-38. Retrieved from <https://login.ezproxy.net.ucf.edu/login?url=https://search.proquest.com/docview/213593689?accountid=10003>
6. Marsh, B. (1994). Baldrige award gets fewer applicants from small business --- costing tens of thousands, the price of pursuing oscar for quality deters many. *Wall Street Journal* Retrieved from <https://login.ezproxy.net.ucf.edu/login?url=https://search.proquest.com/docview/398399946?accountid=10003>
7. Jones, M. R. (2014). Identifying critical factors that predict quality management program success: Data mining analysis of Baldrige award data. *The Quality Management Journal*, 21(3), 49-61.
8. Lanczycki, J. (2016). Road map for the Baldrige journey: A guide to effective use of the criteria for performance excellence and Baldrige-based award programs. *Quality Progress*, 49(8), 61.
9. Peng, X., & Prybutok, V. (2015). Relative effectiveness of the Malcolm Baldrige national quality award categories. *International Journal of Production Research*, 53(2), 629.
10. Ryan, Mary Jean. (2004). "Achieving and Sustaining Quality in Healthcare." *Frontiers of Health Services Management*, vol. 20, no. 3, pp. 3-11.
11. Townsend, Pat, and Joan Gebhart. (1996). "The Importance of the Baldrige to US Economy." *The Journal for Quality and Participation*, no. 4, p. 6.
12. Griffith, John R. (2017). "An Organizational Model for Excellence in Helathcare Delivery." *Journal of Healthcare Management*, vol.62, no.5, 2017, pp.328-341., doi:10.109/jhm-dd160001