Perceived Leadership Integrity in the Manufacturing Industry

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Abstract Ethics is a significant issue among those in leadership positions, especially since the ethical corporate scandals of the 1970s followed by corporate scandals in the 1980s and the S&L scandals of the 1980s and 1990s and most recently the global financial crisis of 2006–2009. The purpose of this research was to measure the perceived leadership integrity in today's manufacturing environment, since the global financial crisis, as perceived by their employees. This study included 7,233 manufacturing employees in the United States. A total of 66 surveys were used to calculate data for this study. The Perceived Leader Integrity Scale (PLIS) was used to collect data from respondents that included demographic questions. The research addressed the following question: To what degree are leaders in the manufacturing industry considered "low ethical," "moderate ethical," and "high ethical" on the PLIS?

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Introduction

Ethics is an issue that is growing in importance among those in leadership positions, especially since the ethical corporate scandals of the 1970s followed by corporate scandals in the 1980s and the S&L scandals of the 1980s and 1990s. The collapse of the dot-com bubble and accounting scandals that included Enron and WorldCom came next and then more recently, the global financial crisis of 2006–2009. Corporations have undertaken ethics initiatives and some have put out annual reports lauding their responsibility effort. Students in business schools are required to take business ethics course and an explosion of references to ethics and responsibility have ensued. Ethics in leadership and business has made it center stage (Brenkert 2010).

The importance of leadership in creating and promoting ethical behavior in organizations has been well established in ethics literature. Leaders typically set the standards for organizational goals and behavior in the workplace and then create systems that affect employee outcomes. Leaders will communicate what they value and motivate employees in ways to achieve rewards for compliance. Employees also rely on their leaders for guidance when they face ethical questions or problems. Research tends to support the belief that employees will conform to the ethical values of their leaders (Treviño and Brown 2004).

This study focused on measuring employees' perceptions of leadership integrity behavior in the manufacturing industry. An assessment was made that considered the demographics of age, gender, ethnicity, education level, and workplace experience and the degree that leaders in the manufacturing industry are considered "low ethical," "moderate ethical," and "high ethical" on the Perceived Leader Integrity Scale (PLIS).

Specifically, this research examined the following research questions:

1. To what degree are leaders in the manufacturing industry considered "low ethical" on the PLIS
2. To what degree are leaders in the manufacturing industry considered "moderate ethical" on the PLIS?
3. To what degree are leaders in the manufacturing industry considered "high ethical" on the PLIS?

Organization of the Paper

According to April et al. (2010), a number of categories exist within ethics literature. The first category is leadership-based body of literature. The second category is business ethics and they are more or less based on the philosophical and psychological bodies of literature. The third category has virtue ethics on the one end of a continuum with situational social psychology on the other. In this paper, we focus on the first category, the most broadly diffused category that is popular leadership-based literature and more specifically on perceived leadership integrity based on employee perceptions and then briefly on the second category.
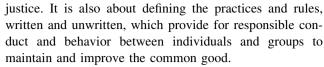
Literature Review

The literature review for this paper began with the definition of ethical leadership and its importance, and then reviewed the schools of thought on why a business should be ethical. It then explored leading and ethics and concluded with a section about managing to be ethical.

Defining Ethical Leadership and Its Importance

Burns (2003) presented three types of standards or norms as they relate to leadership. The first is virtue, which refers to the norms of conduct or habits of actions, such as chastity, sobriety, cleanliness, honesty, and self-control. These develop early in life and in the home as exemplars from parental leadership. The second, ethics, refers to more formal and transactional behaviors, such as integrity, promise keeping, trustworthiness, and reciprocity, accountability, summarized as the golden rule. Ethics are also the ways in which leaders and followers interact, as they influence each other or others. Third, transforming values are the lofty principles, such as order, liberty, equality, justice, and the pursuit of happiness.

April et al. (2010), described ethics, as a system of morals and what is just and discerning, and what is right or wrong (normative ethics), in order to achieve distributive justice. It is also about defining the practices and rules, written and unwritten, which provide for responsible conduct and behavior between individuals and groups to maintain and improve the common good.

Burns (1978) stated that transformational leadership is an ethical style of leadership when it considers the true needs of followers, which are based on informed choice. The transformational leader must be guided by near universal ethical principles, such as respect for human dignity and equality of human rights. Moral leadership helps its followers to see the conflict between competing values, inconsistencies between espoused values and behavior and the need to realign values, behavior, and transformation of organizations (Bass 1985).

Bass (1985) asserted that morality among leaders contributes to organizational success and the integrity of leaders. Integrity is essential to a successful leader and organization. Reputation determines a leader's influence and effectiveness with superiors, peers, and subordinates. The credibility of a leader may be lost if they are found to be duplicitous. A leader's personal values tend to influence their ethical performance in decision-making. The things that they see as good and right influence their perceptions of situations. A leader's personal values also determine what is ethical and what constraints of the organization they may accept or attempt to change. The personal values of the leader must be clear for those of the team, group, organization, and community in order to understand the leader.

Schools of Thought on Why a Business Should be Ethical

Harrison (2001) described two schools of thought on why a business should be ethical. The first school is that being ethical helps the bottom line and is a way to win customers (Bass 1985; Harrison 2001). The second is that being ethical is the right thing to do (Harrison 2001; Burns 2003).

Kouzes and Posner (2007) discovered in their leadership research is that honesty was selected more often than any other leadership characteristic as the most important factor in the leader-constituent relationship. In order for organizational constituents to follow their leaders, they want someone that they can trust. Honesty is strongly associated with values and ethics. People indicated that they would not follow those whom they do not trust or who will not or cannot disclose a clear set of values, ethics, and standards. If employees are to follow leadership, they want to know if they are worthy of their trust.

According to Simms (2009), the management guru, Mary Parker Follett believed that society or organizations should not separate individuals from the society in which they live, work, and function. Rather, a unity of

consciousness comes through the power of social interaction. She defined morality as a constructive force, not as refraining from doing certain things, but rather advancing ideals. Situations that present themselves as ethical dilemmas are often complex, ambiguous, and social to the extent they affect a number of stakeholders of an organization. Graham (1995) postulated that there is now emerging an idea of ethics that is different from the altruistic school. It is not based on isolated human beings to one another, but on integrated individuals acting as a whole, which is a belief in the consciousness of the whole. The leader, constituents, and organization are intertwined and when constituents feel they follow a dishonest leader, they lose respect for themselves, too.

Leading and Ethics

Perlin (2009) suggests that today's leaders must have clear goals and high expectations that focus on key results in order to create an ethical organizational environment. An ethically driven leader will execute their responsibilities from a different perspective with power derived from trust and not fear. They will focus on relationships and results, and will generate confidence from their followers. Perlin (2009) makes recommendations on leading by example for how leaders can ethics a key component of their management philosophy:

- State expectations loud and clear. Everyone must understand what is expected of them and that ethics is everywhere within the organization. Leaders must set the example of communicating in an open and honest manner that employees can emulate with their clients, tenants, and suppliers.
- Be willing to ask the hard questions. "Are we doing what we said we would do? Are we operating in a manner that builds trust in our services and relationships?" recognize and reward. Show appreciation for those who demonstrate their ethics in difficult situations. Remember that people often repeat behavior they have seen in others.
- Talk about ethics often. Put it on the agenda of every management meeting. Repeat the stories of those who have achieved superior results while upholding the ethical values that are central to the company. The more important the leader makes the value of ethics as a competitive tool, the more important it will become to the company.
- Do not hide bad news. Especially today, every company can count on problems. If employees are afraid of retribution, there is a strong chance they will withhold information. Employees will share bad news if it is

dealt within a positive manner and without any fear on their part.
- Make ethics part of your everyday leadership. Leadership has nothing to do with your position but has everything to do with your ability to influence others. Ethics cannot be left to chance. It must be part of every discussion and decision if it is to survive and succeed. (p. 10)

Treviño et al. (2000a) presented two pillars of ethical leadership in their research. Pillar one is the moral person and pillar two is the moral manager. Many executives interviewed thought that being an ethical person who does the right thing, makes good decisions, and treats others well was important to being an ethical leader. The moral person pillar represents the basis of ethical leadership and is important in developing a reputation for ethical leadership since traits, behaviors, and decisions are part of the leader. The second pillar is the moral manager who puts ethics at the forefront of their agenda (Treviño et al. 2000b). A moral manager is a role model who shows employees how to conduct business ethically and lead by example. They keep employees on top of the ethical standards, principles, and values by rewarding their employees for good adherence to these standards.

Managing to be Ethical

Treviño and Brown (2004) identified five common myths about ethics and responded to them in manner that is grounded in theory, research, and business examples. They are intended to help guide executive who are attempting to better manage their employees and their own ethical behavior. The following are the five common myths:

Myth 1: It's Easy to Be Ethical
Myth 2: Unethical Behavior in Business Is Simply the Result of "Bad Apples"
Myth 3: Ethics Can Be Managed Through Formal Ethics Codes and Programs
Myth 4: Ethical Leadership Is Mostly About Leader Integrity
Myth 5: People Are Less Ethical than They Used to Be (pp. 69–77)

Treviño and Brown (2004) summarized and debunked these myths. They stated that people are not more unethical today, but more gray areas exist and opportunities to participate in unethical behavior may exist today. They further stated that being ethical is not simple and that ethical decisions are ambiguous, and the ethical decision-making process requires multiple stages that are complicated and contain contextual challenges. Therefore, some individuals in organizations may not have the cognitive sophistication

to make the right decisions. In addition, many people are influenced by peers' and leaders' words and by concerns about the consequences of behavior in the work environment. Furthermore, unethical conduct is not just the result of bad apples, but because of neglectful leadership and organizational cultures that send mixed messages about the things that are important and what is expected.

Treviño and Brown (2004) asserted that executives must manage ethical conduct of their employees in a proactive fashion and the complexity of the management system of formal ethics codes and programs must be equal to the behavior being managed that includes rewarding ethical behavior. The messages about the short-term bottom line must be equal with accountability for ethical behavior. Ethical leadership means making the right ethical values visible and making transparent the struggle to balance competing interests. Ethical cultures and ethical leaders are related and a CEO must be the Chief Ethics Officer. Treviño and Brown (2004) offered the following guidelines for effective ethics management:

First: Understand the existing Ethical Culture
Second: Communicate the Importance of Ethical Standards
Third: Focus on the Reward System
Fourth: Promote Ethical Leadership throughout the Firm (pp. 78–80).

The following section describes the research methodology, measures, population, procedures, and descriptive analysis.
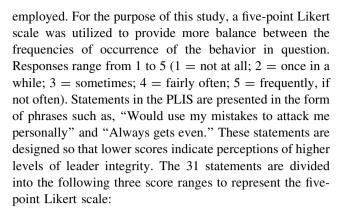
Methodology

In our research, we set out to determine employee perceptions of their leaders and determine to what degree are leaders in the manufacturing industry considered "low ethical," "moderate ethical," and "high ethical" on the PLIS.

Measures

Craig and Gustafson's PLIS and demographic questions that measured age, gender, ethnicity, education level, and workplace experience were used in this study. The PLIS was utilized to measure subordinate perceived ethical integrity of the manufacturing organizational leaders in this population. The PLIS evaluates leader's ethics by determining the degree to which subordinates perceive them acting in ways that produce the greatest amount of good for the greatest number of people (Craig and Gustafson 1998).

The PLIS (Craig and Gustafson 1998) is comprised of 31 statements in which a four-point Likert scale is

employed. For the purpose of this study, a five-point Likert scale was utilized to provide more balance between the frequencies of occurrence of the behavior in question. Responses range from 1 to 5 (1 = not at all; 2 = once in a while; 3 = sometimes; 4 = fairly often; 5 = frequently, if not often). Statements in the PLIS are presented in the form of phrases such as, "Would use my mistakes to attack me personally" and "Always gets even." These statements are designed so that lower scores indicate perceptions of higher levels of leader integrity. The 31 statements are divided into the following three score ranges to represent the five-point Likert scale:

High ethical (score range from 31 to 44)
Moderate (score range from 45 to 83)
Low ethical (score range from 83 to 155)

The high ethical score range indicates that subordinates perceive their supervisor as highly ethical, trustworthy, and highly principled. The moderate score range represents subordinate is perceptions that their supervisor is moderately ethical and that he or she sometimes engages in slightly unethical behaviors. The low ethical score range means that subordinates perceive their supervisors as very unethical, dishonest, unfair, and unprincipled.

Population

The population for this study included an original e-mail list of 9,388 manufacturing employees within the United States, representing an unknown number of companies. The final e-mail population included 7,388 manufacturing employees, after correcting for bad e-mail addresses and those who chose to opted out of the study. A total of 66 surveys were used to calculate data for this survey. This database of manufacturing employee e-mails represents a random selection of participants from the general manufacturing population.

Procedure

An e-mail invitation to participate in the survey was sent to 7,233 out of the original 9,388 manufacturing employees on the list. This invitation included a link to the Zoomerang.com based survey where the survey could be completed. Those who accepted the invitation were then required to follow the instructions in completing the survey and those who chose not to participate were given the option to be removed from the list. Instructions included a guarantee of anonymity among respondents. An e-mail reminder was sent approximately 2 weeks after the first e-mail invitation was made and was sent to 5,609 e-mail addresses that excluded bad e-mail addresses and those who chose to opt out of participation. The survey remained open for approximately

Table 1 Demographic data

Demographic data characteristics	N	Mean	SD	%	Frequency
Age	66				
17–25 years		38.00	0	1.52	1
>25 years <36 years		52.86	23.83	12.12	8
>36 and <46 years		42.42	18.52	28.78	19
>46 and <56 years		44.62	23.93	31.82	21
>56 and <66 years		38.94	13.12	22.73	15
Over 66		34.50	4.95	3.03	2
Gender	66				
Male		45.95	22.61	63.60	42
Female		37.63	11.18	36.40	24
Ethnicity	66				
White		43.20	19.31	82.00	54
Hispanic		40.50	14.46	6.00	4
Black		41.50	12.87	6.00	4
Other		51.50	35.16	6.00	4
Education level	66				
Junior high school		0	0	0	0
Some high school		0	0	0	0
High school graduate		33.75	2.50	8.00	5
Some college		42.76	12.49	26.00	17
4-year college degree		46.71	24.38	30.00	20
Masters or higher		45.13	22.49	35.00	23
Other		37.00	0	2.00	1
Work experience	66				
0 to <1 year		0	0	0	0
1 and <2 years		65.00	0	2.00	1
2 and <5 years		44.80	15.71	15.00	10
5 and <10 years		38.50	6.16	11.00	7
10 and <20 years		56.71	26.34	11.00	7
>20 years		1.84	20.33	62.00	41

1 month from the original invitation date and was closed. At that point, the completed forms were compiled entering the Likert numbered responses and demographic codes onto an Excel spreadsheet.

Descriptive Analysis

Table 1 lists the demographic information. Five areas of concern measures were age, gender, ethnicity, education level, and workplace experience. The selection of these determinants followed the generally accepted guides used in numerous studies.

A division of roughly 10 years was used when analyzing age. Ethnicity covered the most common groups available in the manufacturing industry in the United States. Education level ranged from junior high to greater than a master's degree. Gender was only measure in terms of male and female.

Table 2 addressed the three research questions directly.

1. To what degree are leaders in the manufacturing industry considered "low ethical" on the PLIS?
2. To what degree are leaders in the manufacturing industry considered "moderate ethical" on the PLIS?
3. To what degree are leaders in the manufacturing industry considered "high ethical" on the PLIS?

For each demographic in Table 1, the number of respondents, mean, standard deviation, percentage, and frequency are presented. It should be noted that the mean scores represent the total of the Likert scale for the 31 statements. For example, had all respondents select number one, their total mean score would be 31. Had they selected five as a response to each question, their mean would have been 155. Therefore, the range of the mean is from 31 to 155.

Table 2 breaks the scores into three bins with each representing a research question. The high ethical,

Table 2 Ethical scores of supervisors

Score ranges	Mean	SD	Frequency
High ethical (31–44)	33.73	3.43	48
Moderate (45–83)	60.50	11.41	14
Low ethical (84–155)	100.25	12.45	4

moderate, and low ethical scores are given as the mean, standard deviation, and frequency.

The following section presents the results of the research study.

Results

Demographics

Demographic questions were used to collect data from respondents in this study. The demographic questions were designed to consider the variables for this study and included questions about age, gender, ethnicity, education level, and workplace experience and the results are presented in Table 1.
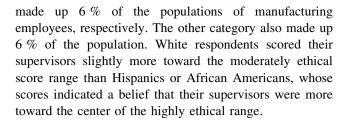
Age

Eighty-four percent of the respondents indicated their age to be between 36 and 66 years of age and the category of 46 to less than 56 years of age was the largest single category in the survey. Interestingly, the mean score for the age group >25 and <56 years of age indicated the highest mean score, were either in the moderately ethical range or trending toward it. Those in the age bracket from >56 and <66 and the group over 66 years of age felt their immediate supervisor demonstrated a high ethical level behavior.

Gender

It was interesting to note that the percentage of male was 63.6 % and female in this population group was 36.4 %. The mean score was 45.95 for the males and 37.63 for females. Males felt their supervisors were only moderately ethical, while females felt that their supervisors were highly ethical. It should also be noted that the standard deviation for each gender were 22.61 and 11.18, respectively. This extremely large standard deviation relates to the final score range potential between 31 and 155.

Ethnicity

The white ethnic group dominated the study, representing 82 % of the population. Hispanics and African Americans

made up 6 % of the populations of manufacturing employees, respectively. The other category also made up 6 % of the population. White respondents scored their supervisors slightly more toward the moderately ethical score range than Hispanics or African Americans, whose scores indicated a belief that their supervisors were more toward the center of the highly ethical range.

Education Level

Ninety-one percent of the employee respondents indicated that they possessed at least a high school degree as their highest educational level. Those who had only the high school diploma scored their supervisors as highly ethical, while those with some college education to a Master's level or higher scored their supervisors in the moderately ethical range.

Experience Level

The largest number of employees who participated in this survey had greater than 20 years of work experience, which corresponds with the age demographics represented. This group indicated that their perception of their supervisor's behavior was highly ethical. However, those in the experience range from 10 years to <20 years rated their supervisors as only moderately ethical as did those in the 2 to <5 years category.

PLIS Scores Among Organization Supervisors

The average ethical mean score of supervisors on the PLIS Scale, as perceived by their employees, was 43.62 or at the upper end of the highly ethical score range, approaching the bottom of the moderately ethical scale. The 48 employees, who rated their employees highly ethical, rated their supervisors with a mean score of 33.73, which is relatively near a perfect score of 31 on the high ethical PLIS score range of 31–44. Twenty-one percent indicated that their supervisor was moderately ethical. The 14 employees who rated their supervisors as moderate did so with a mean score of 60.50, which is in the middle of the moderate ethical PLIS range of 45–83. Four individuals rated their supervisor as low with a mean score of 100.25, which is on the low side of the low ethical PLIS range of 84–155.

Mean

In general, the overall mean score for each participant is just below the moderately ethical scale on the PLIS, but still just in the top of the highly ethical scale range. Question 5 had the highest mean score of 1.8 from among

Table 3 PLIS questions

	Mean	Std. deviation	Standard error	Confidence level at 95 %
1. Would use my mistakes to attack me personally	1.55	0.84	0.1	1.34–1.75
2. Always gets even	1.52	0.88	0.11	1.30–1.73
3. Gives special favors to certain "pet" employees, but not to me	1.8	1.08	0.13	1.54–2.06
4. Would lie	1.56	0.84	0.1	1.36–1.76
5. Would risk me to protect himself/herself in work matters	1.71	1.06	0.13	1.46–1.97
6. Deliberately fuels conflict among employees	1.47	0.86	0.11	1.26–1.68
7. Is evil	1.23	0.58	0.07	1.09–1.37
8. Would use my performance appraisal to criticize me as a person	1.41	0.76	0.09	1.22–1.59
9. Has it in for me	1.27	0.57	0.07	1.14–1.41
10. Would allow me to be blame for his/her mistake	1.56	0.96	0.12	1.34–1.81
11. Would falsify records if it would help his/her mistake	1.31	0.73	0.09	1.13–1.48
12. Lacks high morals	1.44	0.79	0.1	1.25–1.63
13. Makes fun of my mistakes instead of coaching me as to how to do my job better	1.3	0.74	0.09	1.12–1.48
14. Would deliberately exaggerate my mistakes to me look bad when describing my performance to his/her superiors	1.33	0.79	0.1	1.14–1.52
15. Is vindictive	1.42	0.79	0.1	1.23–1.61
16. Would blame me for his/her own mistake	1.48	0.93	0.11	1.26–1.71
17. Avoids coaching me because he/she wants me to fail	1.32	0.71	0.09	1.15–1.49
18. Would treat me better is I belonged to a different ethnic group	1.26	0.62	0.08	1.11–1.41
19. Would deliberately distort what I say	1.32	0.88	0.08	1.15–1.48
20. Deliberately makes employees angry at each other	1.38	0.76	0.09	1.20–1.56
21. Is a hypocrite	1.55	0.96	0.12	1.31–1.78
22. Would limit my training opportunities to prevent me from advancing	1.33	0.69	0.12	1.31–1.78
23. Would blackmail an employee if he/she though she could get away with it	1.23	0.65	0.06	1.07–1.38
24. Enjoys turning down my requests	1.26	0.54	0.07	1.12–1.39
2 5. Would make trouble for me it I got on his/her bad side	1.53	0.82	0.1	1.33–1.74
26. Would take credit for my ideas	1.63	1	0.13	1.38–1.88
27. Would steal from the organization	1.18	0.46	0.06	1.06–1.29
28. Would risk me to get back at someone else	1.32	0.67	0.09	1.16–1.49
29. Would engage in sabotage against the organization	1.16	0.45	0.06	1.05–1.27
30. Would fire people just because he/she doesn't like them if he/she could get away with it	1.44	0.78	0.1	1.24–1.63
31. Would do things which violate organizational policy and then expect his/her subordinates to cover for him/her	1.35	0.83	0.11	1.15–1.56
	43.62	Average mean score $N = 66$		

Source Based on the PLIS 1.0 that appeared in Craig and Gustafson (1998, pp.143–144). Used with the permission of the authors

the 31 questions. That question states that my supervisor would: "Give special favors to certain 'pet' employees, but not to me." This question yielded the highest standard deviation at 1.08. The lowest mean score of 1.16 and a standard deviation of 1.16 answered the question, my supervisor: "Would risk me to get back at someone else". Removing one outlier in the results of each question did not greatly affect the score to the question. Table 3 presents the mean score, standard deviation, standard error, and confidence level at 95 % for each question.

The following section includes a discussion of the PLIS results by demographics.

Discussion

Demographics

Demographic questions were included with the PLIS and used to collect data from participants in this study in the

following areas: age, gender, ethnicity, education level, and workplace experience. The results of this questionnaire are presented in Table 1.

Gender

According to the U.S. Bureau of the Census (2000), twice as many males are employed in manufacturing than females. In our study, the numbers reflect this demographic. The mean score for rating leadership integrity of supervision for males was found to be moderately ethical. In terms of the female gender, the mean score was found to be in the highly ethical range of scores. Comparing the means using a 95 % confidence level, demonstrates that there is a significant difference between the male and female rating of their supervisors' integrity.

Age

It appears that as age increases in the categories analyzed the employee perception of integrity remains in the highly ethical range of scores. The only exception is the age range from greater to less than 36 year of age. From the questions selected for the instrument, the determining reason is unknown. It may be because younger workers distrust their old supervisors. Younger employees may possibly have a different rating scale when considering supervisory behavior. Further investigation is warranted about the results of scores reported in this study in terms of age.

Ethnicity

Why does one ethnic group rank supervisors higher than another? This study did not determine the ethnicity of those supervisors evaluated by participants and this certainly limits the ability to postulate answers. However, white participants rated their supervisors slightly less ethical than the remaining groups, except the "other" category. In future studies, determining the ethnicity of those supervisors evaluated would be an area of opportunity that could be further developed.

Education Level

It appears, from the data collected, that most of the employees had taken some college and the majority had a 4-year college degree. In general, the higher the educated participant was, the lower they scored their supervisor. The 4-year college degree and those with a masters or higher rated their supervisors as moderately ethical. The lower level of educated perceived their supervisors as highly ethical. The standard deviations among the higher educated

participants was high, meaning there is much disagreement among the rating by subjects.

PLIS Scores Among Organization Supervisors

Over 72 % of all respondents had a very high opinion of their immediate supervisor's integrity. In terms of the highly ethical score range of 31–44 points, the mean score of 33.73 resulted. Thus, it is safe to make the statement that the vast majority of the individuals surveyed viewed their manager as having a high level of ethics. Another 21 % rated the supervisors as having a moderate level of integrity in the score range of 45–83. The remaining 6 % viewed their immediate managers as low ethically in the score range of 84–155.

In terms of the itemized demographics presented in Table 1, the mean scores of over 40 appear to be common in the major categories; however, over 73 % of the employees ranked their supervisors at 33.73 or firmly in the highly ethical score range. A reason for this anomaly is the level of standard deviation that exists in the various categories. The majority of participants felt that their supervisors were highly ethical, while there were many who did not believe so, and had strong opinions. The employees who believed integrity was a problem with their manager were represented in the major categories. The data tend to support that the majority of employees viewed their supervisors as completely ethical and a smaller group who felt that their supervisors were moderately ethical and even low ethically. Comparing the means using 95 % confidence interval, there is a significant difference that is apparent among the categories investigated.

Summary

Recommendations for Further Research

Brown and Mitchell (2010) suggest that there are many opportunities for future research into ethical and unethical leadership. One opportunity is the integration of three emerging trends in the organizational behavior literature, which are emotions, fit/misfit, and identity/identification into a leadership and ethics research agenda that may provide countless opportunities to expand knowledge about the domain. In addition, in their research, they considered the variability of ratings, multi-source and longitudinal data, levels of management, and cross-cultural sampling that they believe has merit in extending the literature.

Previous leadership research has been concerned with how managers and supervisors as perceived by subordinates using various leadership surveys instruments. Leadership in manufacturing organizations is an important

concept, especially since the financial meltdown of 2006 through 2008. This topic has been written about extensively in the manufacturing industry. Based on the findings from this research study utilizing the PLIS in the manufacturing environment, additional study is warranted that validates and enhances the current study and that may also increase the size of the population that the current study presented. Focusing on specific segments of the manufacturing industry may provide significant findings that will benefit the industry, as well.

Further research should investigate the relationship between the PLIS and manufacturing efficiency, effectiveness, and profitability. Leaders in today's manufacturing organizations are increasingly faced with pressure from the public to focus on social responsibility, while also maintaining productivity and profitability. If leaders lack integrity or are perceived as low in integrity, they may be unable to achieve the strategic goals of the organization. These leaders may even place their organizations in legal compliance issues, lack effective decision-making ability, create morale problems, and create communication issues that lead to loss of stockholder value (Baker and Craig 2006).

This research investigated the perceived leadership integrity of supervisors in the opinion of their employees in the U.S. manufacturing industry using the PLIS. Craig and Gustafson (1998) demonstrated that the PLIS could be used in determining the subordinate rated levels of the perceived integrity of supervisors in manufacturing organizations. The results of this research have implications for manufacturing organizations and researchers regarding ethical supervision. Further research is needed to investigate factors that may contribute to higher leadership integrity scores in all areas of the manufacturing organization.

In addition, further research should investigate the correlation between leadership styles and the PLIS. One such style is transformational leadership. Burns (1978) identified transforming leadership as an ethical, moral enterprise, through which the integrity of organizations are maintained and enhanced. Transformational leadership emphasizes the importance of followers in the leadership process, and goes beyond traditional transactional models and broadens leadership to include a focus on follower development (Northouse 2004). Determining the level of transformational leadership and perceived leadership in manufacturing organizations may improve performance and strategic performance of organizations in today's global economy.

According to Liveras (2011), integrity, respect for people, and protecting the planet define Dow's core values and drive this organization from the bottom to the top. It is becoming increasingly apparent that the full integration of ethical standards into an organization is not only preferred

but also necessary for long-term survival (Parry and Proctor-Thomson 2002). Ethical behavior is concerned with not only what should be but also with what should not be. This implies that ethics means going beyond the requirements of the law and what may yield the best triple bottom line for the manufacturing organization.

Utilizing the PLIS to help measure leadership integrity over time is also critical and an opportunity for future research. Measuring improvements or changes in integrity in business over time is an important concern. History provides us with an early warning system about the ethical pitfalls of business and the tragedies that result from the moral failures of business and PLIS can be tool to do this (Cuillla 2011). People have long been aware of these problems and examples litter the papers, journals, and books about business and leadership. Organizations should consider the use of the PLIS as a legitimate method of self-reflection for leadership and the organizations that they lead.

The recommendations for future research outlined here are limited and there are many other possibilities not included in this research. However, it is hoped that this research may inspire others to build from this research, and also to identify new research directions and propose new questions to help advance the literature.

Closing

According to Cuillla (2011), leadership requires a person to have a broad perspective on the world and an understanding of how it works, which is essential to good leadership. Good leadership must possess this knowledge of the whole and an understanding of the element of integrity, ethics, and values are critical. Organizational leadership and employee values may not necessarily need to be the same, but they must coexist, and according to Drucker (1999), that organizations must have values and their employees must, also. This means that one's values must be aligned with the organization in order to be effective. If this compatibility does not exist then employees become frustrated and they will not produce positive results in the manufacturing industry or in business as a whole.

This study focused on measuring employees' perceptions of leadership integrity behavior in the manufacturing industry. An assessment was made that considered the demographics of age, gender, ethnicity, education level, and workplace experience and the degree that leaders in the manufacturing industry are considered "low ethical," "moderate ethical," and "high ethical" on the PLIS.

These levels need to be further developed and tested for ethical leadership.

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