QUESTIONS ABOUT THE ULTIMATE QUESTION: CONCEPTUAL CONSIDERATIONS IN EVALUATING REICHHELD'S NET PROMOTER SCORE (NPS)

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ABSTRACT

Approximately four years ago in a *Harvard Business Review* article, Frederick Reichheld (2003) – noted Harvard Business School Press author, speaker, loyalty expert, and Director Emeritus of Bain & Company Consulting – introduced a concept called the Net Promoter Score (NPS). Reichheld's claim was straightforward: of all the customer survey metrics an organization can track, one stands out above all others in terms of its relationship with company financial performance – an aggregate-level measure derived from scores on a "likely to recommend" survey item. In his article, Reichheld presented the case for his premise. While most scholars would agree that positive word of mouth is highly beneficial and that negative word of mouth is detrimental, less tenable is Reichheld's claim that a single word of mouth metric is the '*one* thing' a company needs to track and manage. A recently published *Journal of Marketing* paper challenges the validity of Reichheld's claims on empirical grounds (Keiningham, Cooil, Andreassen, and Aksoy 2007). However, in addition to empirical scrutiny, evaluation of Reichheld's NPS should include detailed conceptual scrutiny. If there are threats to validity in the conceptual elements, these must be factored into evaluations of any empirically-based claims. This paper adds to the assessment of NPS by going back to Reichheld's original work and suggests that rethinking on conceptual grounds will reveal potential threats present in various elements of the NPS formulation.

INTRODUCTION

In the influential *Harvard Business Review*, Frederick Reichheld (2003) introduced the idea of a Net Promoter Score (NPS). He claimed this single summary number from one customer survey question is a sufficient basis for profitably measuring and managing customer loyalty. On a 0-to-10 scale, customers answer the question: "How likely is it that you would recommend [company X] to a friend or colleague?" Anyone rating 0 to 6 is labeled a "detractor", 7 or 8 "passively satisfied", and 9 or 10 a "promoter." The Net Promoter Score (NPS) is the percent "promoters" minus the percent "detractors." According to Reichheld (2003), this single number has more relationship with company financial performance than all others he tested, leading to the following statement:

> *"This number is the one number you need to grow. It's that simple and that profound."*
> *p. 54.*

Following the original article, Reichheld continued to spread that message in additional published material (e.g., Reichheld 2004; 2006a), conference presentations (e.g., Reichheld, 2006c), and a Harvard Business School Press book exclusively devoted to the

topic (Reichheld 2006b). His NPS concept has also gained considerable momentum because of its appealing simplicity; compelling claims of links to profitability (Reichheld 2003; 2004; 2006a; 2006b); apparent independent replication of those links by other researchers (Marsden, Samson, and Upton 2005); reported adoption by prominent companies such as GE, American Express and Microsoft (Creamer, 2006; Keiningham et al. 2007); and Reichheld's own strong consulting credibility and stature. Another force augmenting NPS attention is its natural fit with the modern "revolution" taking place regarding consumer-to-consumer communication and consumer generated media, blogs, and viral marketing (c.f., Kirby and Marsden 2005). Evidence of some of the breadth and volume of attention received in just four short years can be seen with a simple Google search on the term "Net Promoter," and a visit to the 'What They're Saying' section of the official NPS website (www.netpromoters.com).

Despite the impressive momentum of the net promoter concept, not everyone has been willing to so quickly accept and adopt Reichheld's NPS. Immediate and subsequent challenges to Reichheld's claims have arisen. A number of points of critique emerged from practitioners and academics shortly after the 2003 article (e.g., Grisaffe 2004a; Grisaffe 2004b; Morgan and Rego 2004; Kristensen and Westlund 2004). And while the years following have seen many enthusiastically embracing Reichheld's prescription, others have continued to raise notes of caution that the simple claims about NPS may not reflect the "ultimate" in customer measurement and management. Again, these concerns have been raised by both academic and practitioner authors (Brandt 2007; Crosby and Johnson 2007; Keiningham et al. 2007; Morgan and Rego 2006; Nicks 2006; Pingitore, Morgan, Rego, Gigliotti, and Meyers 2007).

With this collection of differing opinions and viewpoints, what is to be made of NPS? Minimally, thorough evaluation of NPS must be made from at least two perspectives, a) on empirical grounds, and b) on conceptual grounds. To confirm or fail to confirm the claims that surround NPS as the "ultimate" question, rigorous empirical testing must be done, as indeed some have been undertaking (e.g., Keiningham et al. 2007; Marsden et. al 2005; Morgan and Rego 2006). Second, there must be rigorous scrutiny of the conceptual foundations underpinning Reichheld's work and his message. These issues also are critical in evaluating the foundation upon which NPS has been built because quantification and associated empirical analyses strictly hinge on the quality of conceptualization and operationalization.

The core purpose of this current article is to examine the conceptual foundations of NPS. The evaluation and arguments presented here stem largely from a practitioner's perspective (see Endnote). Additional points of critique are drawn from logic and principles of social science and marketing methodology. The claims under scrutiny come from Reichheld's original paper on the NPS topic (Reichheld 2003), several of which are reiterated here through the use of a liberal set of direct quotes.

Finally despite the concerns that follow regarding NPS, two important notes of clarification and intent should be added. First, one can raise points of critique regarding NPS while still being an absolute advocate of *earning* positive word of mouth communication from customers, and strategically *avoiding* negative word of mouth communication. Marketers accept that word of mouth is a critical behavioral outcome of strategic customer experience management. Word of mouth in that light is a *consequence* resulting from customer perceptions and

evaluations of a company's total offering (e.g., excellence in products, services, value for the money, reputation, etc.). Managing to excellence on those causally-driving dimensions is required to generate positive word of mouth from customers, and to avoid negative word of mouth. Thus, it is noted up front that a critique of NPS is *not in any way* an indictment of the value of understanding and trying to manage customer word of mouth behaviors.

Second, in evaluating NPS as a concept, the focus is not on Reichheld as a person or his past work. He is a prominent figure and has earned a strong favorable reputation in industry and academic circles. Many of his ideas are widely cited and certainly deserve respect. This paper is strictly limited to the formulation of the NPS method, particularly questioning whether the conceptual logic supports the nature and force of the claims Reichheld has made about it. The paper is thus about NPS, not about Reichheld or his past scholarship.

CONCEPTUAL CONSIDERATIONS IN EVALUATING NPS

Frederick Reichheld is an established expert, a noted author and speaker, and clearly cares about advancing the topic of customer loyalty. His frequently cited book on the positive effects of earning loyalty (Reichheld 1996a) continues to be extremely influential. However, regardless of the eminence of the originating source, ultimately ideas and claims should be accepted or rejected based on their defensibility, particularly in business where large dollar amounts are at risk if wrongly invested. Thus while Reichheld in the past has been a powerful voice in the area of loyalty, his latest ideas about NPS (Reichheld 2003) seem less tenable on a number of fronts. This paper raises questions about several specific elements of Reichheld's perspective. Primary

among the points of concern is the overarching core claim made by Reichheld, namely, that tracking *one* number based on *one* customer-survey question (likelihood to recommend to others) is a sufficient approach to the measurement and management of customer loyalty. When viewed through a customer measurement practitioner lens, this claim and its supporting arguments and implications lead to a number of practical and logical concerns spelled out in the sections that follow.

1. Recommendations Alone are not Enough

Obviously, customer recommend-ations are important, particularly in certain sectors and markets. Earning positive word of mouth communication from customers can be a powerful force augmenting a company's marketing efforts, especially in today's "connected customer" contexts (Kirby and Marsden 2005). It is in fact a very noble aim to provide the kind of excellence, differentiation, and value for the money that leads customers of their own volition to recommend patronage of the firm – definitely a testimony to the organization's ability to effectively meet customer wants and needs. Thus few would argue with the premise that recommendations are a good thing. But, that really is not Reichheld's basic assertion. His claim is that recommendations are the *main* thing, truly the *one* thing that companies need to attain to manage and drive business success and growth. That singular claim raises a set of logical questions.

Will increasing recommendations really be the single best method of driving business success? Will it have more business impact than reducing customer loss? If I lose 35 percent of my customer base per year, but most of those who stay would recommend, am I really in good shape? Will recommendation be more powerful than

increasing current customers' volume, cross sales, or share of purchase? Will it be more powerful than company controllable marketing actions aimed at acquisition of targeted, profitable new customers? Will it extend the lifetime or lifetime value of the existing customer base? The core NPS premise leaves out such examples of more traditional thinking about customer loyalty, paradoxically some of which have been raised and discussed previously by Reichheld himself (Reichheld 1996a).

2. Reichheld's Message has Changed

At least on the surface, Reichheld's one-number claim seems to contradict his own past writing. He previously argued that reducing customer loss by even five percent radically multiplies profitability (e.g., Reichheld 1996a). Loyalty and customer retention were the primary focus, not recommendations. Further, he did not present word of mouth as a *measure* of loyalty, but rather as an *outcome* of loyalty. In fact, customer recommendations were just one among several important outcomes springing from loyalty. Other powerful dynamics discussed that seem logically more connected to revenues and profitability included: sustained base profit across time through retention; increased volume; in-creased share of purchase; additional prod-ucts and services cross-sold; and other loyalty dynamics. Somehow, those other powerful outcomes of loyalty are now supplanted by this current emphasis on recommendations alone. The new picture, while parsimoniously appealing, appears to leave out important ideas from prior conceptualizations.

3. One Number Tells You Something, but not Everything

A single diagnostic measure can be vitally important but not comprehensive. Consider an analogy. Imagine that your child

has a high fever. The "one number," his or her temperature, clearly is not where it should be. A doctor having that one number may now know there is a problem, but still does not know what the specific problem is, and by implication, what the most appropriate treatment should be. The one number tells him something, but not everything. In fact, it would be in-appropriate to rely on the one number alone. Imagine the doctor saying, "Your child has a fever, we must make the one number improve." He has made no real diagnosis. He has not charted a specific course for curative action based on knowing or describing the one number.

The doctor must go deeper than that to make a specific diagnosis. He must go through a number of more detailed lines of investigation to understand the *root cause* of the problem and to determine what best-fitting course of treatment is required to move the temperature number to a better place. He has to know details about the cause of the fever to know a fitting treatment. The temperature number alone gives little if any such actionable guidance. Certainly the temperature metric is an appropriate and useful indicator of health. No one would deny that. But it does not and cannot by itself tell the whole story.

The same is true with Reichheld's single-question approach. However, Reichheld claims that the one number *is* sufficient in itself to drive motivating, curative organizational action.

> *"Most customer satisfaction surveys aren't very useful. They tend to be long and complicated, yielding low response rates and ambiguous implications that are difficult for operating managers to act on." p. 47*

"By substituting a single question...for the complex black box of the typical customer satisfaction survey, companies can actually put consumer survey results to use and focus employees on the task of stimulating growth." p. 48

It is counter-intuitive that a single overall question is a sufficient basis to put results to use, but that acting upon information from multiple more specific questions is difficult. Certainly Reichheld's one NPS number can reveal something about a company's overall health. However, that single score cannot provide all the information needed to guide targeted strategic improvement actions. To move the one number upward, what specifically shall we do? We must diagnose the underlying causal factors that truly drive it. Reichheld offers no prescription for that kind of diagnosis. Indeed, he seems to indicate that knowing the one number is sufficient in itself:

"The most basic surveys..can allow companies to report timely data that are easy to act on." p. 53

"...the managerial charge, 'We need more promoters and fewer detractors in order to grow.' The goal is clear-cut, actionable, and mot-ivating." p. 53-54

The goal may be clear-cut, but it does not seem actionable with NPS alone in hand. Organizational change agents will be left to speculate about what specifically needs to be done, among all possible things that could be done, to really make the number go up. In fact, how to make the score move up is not knowable based on the score itself. Obviously more information is required. Reichheld seems to acknowledge this himself at one point, contradicting the premise of his one-question NPS approach.

"Follow-up questions can help unearth the reasons for customers' feelings and point to profitable remedies. But such questions should be tailored to the three categories of customers. Learning how to turn a passively satisfied customer into a promoter requires a very different line of questioning from learning how to resolve the problems of a detractor." p. 53

4. The Nature of the One Question

Reichheld's argument is that effective measurement of loyalty can center on one question, *"How likely is it that you would recommend [company X] to a friend or colleague?"* p. 50. What seems to be missing is a critical scientific measurement clarification. Is that item an *outcome* of loyalty, a *measure* of loyalty, or a *cause* of loyalty? In measurement science, ante-cedents (causes), consequences (effects), and indicators (items that help to measure some underlying construct) are clearly distinguished. The distinction is vital scientifically as well as from an applied perspective since it shapes what should be done organizationally. Different courses of action will be required, depending on how the question is "conceptualized." If it is an antecedent or indicator of loyalty, we may try to drive the measure itself. If it is a consequence of loyalty, we will try to drive loyalty to make the outcome increase. Scientifically and pragmatically, the appropriate distinction about the nature of this

item must be made clear. Yet, Reichheld's own language does not offer a clear conceptual distinction, as evidenced by the following quotes:

> A. "...the 'would rec-ommend' question generally proved to be the most eff-ective in determining loyalty and predicting growth..." p. 48

> B1. "...the percentage of customers who were enthusiastic enough to refer a friend or colleague – perhaps the strongest sign of customer loyalty..." p. 48

> B2. "...such a recom-mendation is one of the best indicators of loyalty..." p. 48

> C1. "...loyal customers talk up a company to their friends, family, and colleagues." p. 48

> C2. "...what may be the ult-imate act of loyalty, a recommendation to a friend" p. 50

Quotes A, B, and C respectively make it sound like the one question *determines* loyalty, is an *indicator* of loyalty itself, and is an *outcome* of loyalty. Which is the case? Does recommendation cause, indicate, or result from loyalty? It makes a big difference in terms of diagnosing how best to drive desired customer behaviors, and therefore ultimately in terms of business action. Clear definitions of concepts, and correct specification of causal relations, are vital. Reichheld's NPS approach and his discussion of it leave those distinctions unresolved.

5. How is Loyalty Defined?

Interestingly, despite the confusion about customer recommendation as an indicator, antecedent, or consequence of loyalty, Reichheld does at one point put a stake in the ground on a conceptual definition of loyalty itself. That too is a critical part of good science – providing strong conceptual definitions of constructs under study. However, merely being clear in stating a definition does not ensure its validity. Therefore, construct definitions need to be scrutinized for their soundness. Reichheld ties NPS to a particular definition of loyalty as follows:

> "Loyalty is the willingness of someone – a customer, an employee, a friend – to make an investment or personal sacrifice in order to strength-en a relationship." p. 48

Reichheld views recommendation as fitting that definition – as a form of sacrifice, since the recommender's personal reputation is at stake when a referral is made. Recommendation certainly can fit that definition when considered that way. But just because recommendation fits the chosen definition, does not mean that definition really fits the idea of loyalty. Again, in scientific measurement terms, it is a question of validity. Not only does this definition differ from more well-accepted conceptualizations of loyalty (e.g., Jacoby and Chestnut 1978; Dick and Basu 1994; Oliver 1999), but also logical consideration calls into question the degree to which it fulfills Reichheld's intended purpose.

Can we think of an example that also fits the definition, but which does not clearly constitute loyalty? For instance, consider a

bachelor who is a "player," dating many women at once but committing to none. He is willing to make substantial sacrifices on fancy dinners, presents, his time and effort, etc., to build his relationship with each of his many dates. That seems to meet the definition of sacrifice to strengthen relationships. However, it does not sound like loyalty. So from the start, there are some concerns about Reichheld's definition of loyalty. But it gets more problematic as we dig even further into his explanation.

Reichheld reasserts, with many previous loyalty theorists, that mere repeat purchase is not the same as loyalty. Repurchase could stem from inertia or exit barriers or other reasons not really fitting our natural sense of the word loyalty. However, he steps completely out of more orthodox thinking about loyalty when he argues that true loyalty does not require repeat purchase.

> *"...loyalty may have little to do with repeat purchases. As someone's income increases, she may move up the automotive ladder from the Hondas she has bought for years. But if she is loyal to the company, she will enthusiastically recommend a Honda to, say, a nephew who is buying his first car." p. 48*

While repeat purchase doesn't *constitute* loyalty, it is very atypical to find loyalty *defined without* repurchase. But according to Reichheld, as long as someone refers the company they validly can be labeled a loyal "customer" whether they purchase or not. That is fascinating given his previous writings (e.g., Reichheld 1996a) where he argued that the bulk of financial benefits of loyalty come through sustained repeat purchase. He argued the byproducts of repeat purchase across the customer lifecycle

are primarily what lead to enhanced profitability. How then can it be that recommendation alone can comprise the entirety of the loyalty picture – even if someone is not continuing to purchase from the company at all?

Prevailing theory is that true loyalty is both attitudinal and behavioral, and that the behavioral component is repeat purchase (e.g., Jacoby and Chestnut 1978; Dick and Basu 1994; Oliver 1999). Attitudinal loyalty without behavioral loyalty should not be considered "true" loyalty (Salegna and Goodwin 2005). Reichheld does not embrace this view in his case for NPS, believing someone who is attitudinally loyal but not behaviorally so is just as legitimately called truly loyal.

6. Information in Real Time

Reichheld argues that complex survey approaches offered by applied customer measurement firms somehow cannot offer the kind of real-time, technologically facilitated customer feed-back that can be achieved through adoption of the NPS approach.

> *"The most basic sur-veys…can allow companies to report timely data that are easy to act on. Too many of today's satisfaction survey processes yield complex information that's months out of date by the time it reaches frontline managers." p. 53*

This claim unnecessarily ties the choice of measurement approach to technological sophistication. In reality, apart from NPS, widely available CRM technologies and the proprietary "portal" platforms offered by most major customer/marketing research firms offer real-time record/sample management, contact,

collection, analysis, and distribution tools through sophisticated technological applications. These tools add significant value by accelerating collection, analysis, distribution, organizational access and use of customer information. Many companies in partnership with marketing research firms or through their own information technology solutions now have real-time customer information, at any level of customer breakdown – by total population, segment, account, and individual customer levels – with organization-wide distribution and access to such data. Sophisticated technological tools have nothing to do with survey length or format and therefore should not be used as justification for one-item surveys. While such tools can be used with NPS, companies also may leverage these powerful technological benefits completely independent of adopting Reichheld's NPS approach.

7. Interpretation of Exceptions

Another issue to consider, by Reichheld's own admission (Reichheld 2003), is that NPS *was not* the one thing that best related to growth rates in some cases. For such cases, he interprets the mixed pattern of findings as being due to a lack of choice in those situations.

> *"Asking users of the system whether they would recommend the system to a friend or colleague seemed a little abstract, as they had no choice in the matter." p. 51-52*

> *"... 'would recom-mend' also didn't predict relative growth in industries dominated by monopolies and near monopolies, where consum-ers have little choice." p. 52*

That kind of interpretation makes sense for a question about the likelihood to continue doing business. A lack of choice on the part of a customer certainly would influence how they answer such a question. But when it comes to positive word of mouth behavior – i.e., would recommend – there is no restriction on doing so, even if there is a restriction on choice. For example, one may not be able to choose his or her electric company but that doesn't restrict in any way positive or negative word of mouth to friends and peers. Likewise, if one is using a technology system chosen by someone else (e.g., an IT manager), it in no way prevents one from speaking positively or negatively about the system to others. Thus even when choice is not in customers' direct control, what they say to others about their experiences is in their control.

Some other dynamics likely are happening in those "exception" cases, yet Reichheld does not offer much more about what those other dynamics might be. Indeed, despite observing exceptions, he still offers a blanket prescription for the one-item approach. However, the exceptions show that the approach doesn't work in some industries. In the exceptional cases, we are told explicitly other questions appeared to work much better, according to Reichheld himself.

> *"The 'would recom-mend'question wasn't the best predictor of growth in every case. In a few situations, it was simply irrelevant" p. 51*

He mentions several example industries where the question did not seem to work as well: (e.g., database software, computer systems, local phone, and cable TV). Since his research is based on "more than a dozen industries," apparently, some significant percent of the time, his single item

approach was not the best way to go. By Reichheld's admission, other items provided better information. What implication does that have for other industries not included in his "more than a dozen" sample? There is at least the possibility that his one-item approach doesn't work in many of those either. Based on his mixed results, it seems risky to generalize in a broad blanket statement that NPS is the one and only number needed to grow. Yet that is what Reichheld does:

> *"This number is the one number you need to grow. It's that simple and that profound." p. 54*

The fact that his own data reveals differences in loyalty dynamics across different industry sectors should imply something more is happening than can be captured in any single item. Even if we can measure loyalty itself with a fairly simple approach, the dynamics of what causally drives that loyalty clearly differs by industry. Many other academic and practitioner theorists have spelled out that position quite clearly. Pricing may carry different weight depending on degree of differentiation in market offerings. Service quality may rule the day in service-oriented industries, whereas product-quality may rule in tangible goods. It seems risky to presume that one number can tell the full story and provide a course for enterprise action across the many varied business contexts that exist.

Interestingly, if loyalty instead is a pre-cursor to recommendation as Reichheld originally believed (Reichheld 1996a), available theory could explain cases where customers are recommending but business results are not indicating growth. Specifically, in the matrix formulation of Dick and Basu (1994) some customers can have a highly positive attitudinal state toward the company/product (one that logically could produce recommendations), simultaneously accompanied with a *lack* of repurchase behavior.

8. Manage the Cause or the Effect?

In his fundamental premise, Reichheld argues for managing the NPS formulation because it *correlates* with business performance.

> *"… the percentage of customers who were enthusiastic enough to refer a friend or colleague…correlated directly with the differences in growth rates among competitors." p. 48*

> *"…a strong correlation existed between net promoter figures and a company's average growth rate…Remarkably, this one simple statistic seemed to explain the relative growth rates…" p. 51*

> *"…in most industries, there is a strong correlation between a company's growth rate and the percentage of its customers who are promoters'" p. 52*

Based on these correlations, Reichheld implicitly concludes that a causal relationship is present – manage to higher positive recommendations, and a company will achieve growth. That causality is implied is clear from his language.

"… the percentage of customers who are promoters of a brand or company minus the percentage who are detractors – offers organizations a powerful way to measure and manage customer loyalty. Firms with the highest net promoter scores consistently garner the lion's share of industry growth." p. 53

But, scientific logic delineates the fact that correlation does not necessarily imply causation. Certainly, if A causes B, we will see correlation between A and B. But if A and B are correlated, it doesn't necessarily mean that A causes B. Yet in Reichheld's discussion, he appears several times to extend from the existence of correlation to the interpretation of causation.

An analogy reveals why the leap to causation in this case could be dangerous. Assume for example the desire to see greater levels of physical health in senior adults. Studying a number of factors reveals a biometric that correlates with better physical health in older age: HDL (high-density lipoprotein) cholesterol. Higher HDL is associated with better health - less heart trouble, better muscle tone, better bone density, better positive emotion, etc. So, if we simply find a way to make HDL go up, will all of those positive health benefits be realized? Not necessarily.

There is a plausible alternative hypothesis as to why that one number correlates with better health. HDL might be the effect of some other true underlying cause that drives both HDL and the other positive benefits. If so, drug-based management of HDL cholesterol won't drive the healthy benefits implied by a causal interpretation of the observed correlation. While they are correlated, HDL may not be the cause. Exercise for example could be the real underlying causal agent producing the observed correlations. When senior adults exercise, their HDL levels increase. They also have less heart trouble, better muscle tone, better bone density, and better positive emotion. It is exercise, not HDL itself that is producing all the positive benefits. Trying to manage the HDL number could miss the efficacious root cause. Rather, what should be managed is exercise itself. Then, HDL will go up, and so will all the other benefits.

In the customer context, what if true loyalty is the underlying root cause of recommendation? What if true loyalty also underlies increased shares of purchase, purchase of additional products and services, resistance to competitive offers – things that lead to business success? That common underlying root cause, loyalty, thereby would cause recommendation and business growth factors to correlate.

Understanding the distinction as to why things are correlated could not be more important in its management implications. Teasing out true cause and effect, and making sure to avoid spurious conclusions, is an accepted fundamental of the scientific method. The focus of our efforts should be management of the causal factor itself, not management of an outcome of the ultimate causal factor. Rather than managing recommendation directly, we should be managing its root cause, true loyalty. Getting true loyalty to increase will cause recommendations to go up and will cause other positive indicators to go up too. It is a very important technical distinction. Reichheld seems to have missed that distinction in his article.

What is interesting is that in Reichheld's previous work (e.g., Reichheld 1996a) he seemed not to miss the distinction. His argument was that positive referrals did help a business grow, but it was one of several positive outcomes of managing and realizing loyalty itself. The emphasis was not "get referrals," it was "get loyalty and you will get referrals and a host of other economic benefits." Now his focus, and apparently his conceptual logic, has changed. Perhaps his old assertions were more plausible than his new assertions: to grow and prosper, we should manage the cause – loyalty – not the effect – recommendations.

9. Temporal Precedence

A threat to scientific interpretation of true causality emerges in another place in the paper. Reichheld (2003) presents research done in collaboration with a customer measurement and technology firm and draws conclusions based on data that do not meet one of the fundamental conditions required to infer causality. Namely, if X causes Y, then X must occur before Y. However in the article, that condition is not adhered to, and yet a causal explanation is still offered.

Specifically, Reichheld builds his case for the causal connection between corporate growth and NPS using data that does not fully meet required conditions of temporal precedence. The measure of corporate growth spanned a window from 1999-2002. The survey-based measure of customer recommendation intention did not start until 2001. Thus answers to a forward-looking 2001 "likelihood to recommend" measure are predicting growth observed in part in 1999 and 2000. That means something that happened in the future is being used as a cause of something that happened in past.

This again is a technical point, but it is an important one in assessing the validity of research that claims to tease out causality for

the sake of managerial control. If managers invest in some presumed causal antecedent, but the causal link to the desired outcome has not been rigorously established, the investments may not produce the desired returns. In this case, investing to manage NPS upward could possibly not lead to growth. Temporal precedence is a necessary condition in establishing a cause-and-effect system, but it is clear that this condition has not been fully established in the empirical case for NPS. Yet it is evident that causality is being inferred based on the language used in interpreting the relationships found. For example, in describing the airline industry, this causality inference is implicit in the stated conclusion.

"Remarkably, this one simple statistic seemed to explain the relative growth rates across the entire industry; that is, no airline has found a way to increase growth without improving its ratio of promoters to detractors." p. 51

Not only is the claim incorrect because of the technical issue, it is logically false. It implies several carriers in the airline industry have already been managing by the net promoter number and any and all who have realized growth, have done it only by increasing net promoter scores.

Net promoter scores from 2001 predicting growth partially drawn from 1999 and 2000 is a threat to validity in the conclusion of causality, and therefore a risk for the applied manager wishing to implement actions that drive growth.

10. Questions about Dynamic Interpretation

Another problematic element of the empirical research used to justify the claim that "one number is all you need" is the matching of a cross-sectionally measured

antecedent with a longitudinally measured outcome. Changes in company growth were measured longitudinally, yet the NPS scores were not. This raises questions about the appropriateness of claiming that upward *changes* in the net promoter score explain upward changes in growth. That really is not something Reichheld studied, and therefore should not be something about which such definitive conclusions are stated. Yet Reichheld generalizes just such an interpretation of the data across most of the industries studied.

"...no airline has found a way to increase growth without improving its ratio of promoters to detractors. That result was reflected, to a greater or lesser degree, in most of the industries we examined..." p. 51

11. Scaling the One Question

Reichheld makes an argument for an 11-point scale ranging from 0 to 10, with verbal labels at the ends of the scale and at the midpoint. Typically, scales like that are used to try to ensure variability in responses and to more confidently presume the ratings are at a sufficient level of measurement to warrant certain statistical analyses (technically, to assume "interval-level" measurement). However, what Reichheld does with ratings from this scale is to collapse them into a categorical measure with three levels:

"promoters:" those who scored 9 and 10; "passively satisfied:" those who scored 7 and 8; and "detractors:" those who scored 0-6. That categorization is claimed to be the best way to use the 0-10 ratings.

"...three categories...turn out to provide the simplest, most intuitive, and best predictor of customer behavior..." p. 51

Several concerns and questions arise regarding this formulation. First, only two of three of the collapsed categories are used subsequently to compute the "net promoter score" (promoter percent minus detractor percent). Second, one could ask why 6s are included in the "detractors" group. A rating of 5 is the "midpoint" of the scale, so 6s are on the positive side of "neutral." Why interpret them as negative? Third, how is it that the collapsed categories are the "best predictor of customer behavior" when one normally would expect the increased variability of more scale points to allow for better prediction? Fourth, it is not clear whether these particular break points to create the three groups were chosen arbitrarily, based on some conceptual logic, or empirically. Finally, this particular approach to categorization and the subsequent use of two collapsed categories to create the NPS measure involves computations that allow several very different scenarios to produce the same net promoter score.

12. Examining the Math

As described, customers are divided into one of three categories, and then two of those categories are used to calculate the net promoter score. NPS is the percent "promoters" – those most likely to

recommend – less the percent "detractors" – those less likely to recommend. Bigger numbers obviously are better. In the extremes, 100 percent promoters and 0 percent detractors would yield a net promoter score of 100. Zero percent promoters and 100

percent detractors would yield a minus 100 net promoter score (-100).

A concern with this math is that very different scenarios can produce precisely the same result. Thus, while completely different management actions are likely to be called for under different scenarios, the net promoter score in itself – the one number Reichheld says you need for management – will not expose those differences.

For example, consider two different contrived, but possible, company scenarios to demonstrate the point. Imagine Company A scenario with 5 percent promoters, 90 percent passively satisfied, and 5 percent detractors. We compute the net promoter score to be zero (5% - 5%). Now imagine Company B scenario with 50 percent promoters, 0 percent passively satisfied, and 50 percent detractors. Again the net promoter score is zero (50% - 50%). Two completely different situations produce the same net promoter score, but logically require very different managerial actions.

In scenario A, a very small minority is divided in the extreme ends of the three-category distribution, while the company is doing a mediocre job for most of its customers. In scenario B, the company is doing great with half of its customers, and not great with the other half, essentially producing a two-group distribution divided exclusively into the extreme end categories of the NPS components. Completely different scenarios, exactly the same net promoter scores. Shall we expect the same market performance for the two companies? Will the same management action be required in both cases? It seems unlikely on both accounts.

The one NPS number in isolation requires more information to appropriately interpret and act upon – even the very numbers that went into the single score itself. Without that minimal extra information, there is no hope of knowing the rest of the story. In the example, Company B relative to A has ten times as many promoters, and simultaneously ten times as many detractors. These are totally different situations. The implication of Reichheld's assertions, however, is that both patterns should lead to the same basic growth in the market. It is even more dangerous to think about Reichheld's suggestion that we should be comparing regions, branches, customer segments, even against competitors' scores on this one number. That seems risky given that vastly different scenarios will produce the same net promoter numbers. Likely, even knowing the component scores for NPS will not be enough. Beyond the potential problems posed by the NPS math, likely, more will be required to truly understand which underlying forces might be changed or improved to drive the net promoter components in the desired direction.

13. What is New at the Core?

Reichheld (2003) does not provide all the details of his empirical work, but the reader is informed that measures of actual customer repeat purchases and actual customer recommendations were used.

> *"…my colleagues and I looked for a correlation between survey responses and actual behavior – repeat purchases or recommendations to friends and peers…"p. 50*

It is unclear from the description whether they looked for correlation with actual repeat purchases in isolation, or actual

recommendations in isolation, or some combination of the two metrics. However it was done, behavioral referrals and continuation served as dependent / criterion variables. It sounds as if he and his colleagues tracked actual purchases and referrals, then searched for survey questions that were most highly correlated with those measurements. He reports that two of the three top predicting items were survey-stated likelihood to recommend and survey-stated likelihood to continue purchasing. In other words, survey reported intentions to exhibit certain behaviors (recommendation and continuation) were what correlated most with observance of those behaviors (actual recommendation and continuation). Is this really a new contribution to our understanding of customer behavior, or is the fundamental empirical basis of NPS more along the lines of something social scientists and market researcher already widely accept, namely that behavioral intention questions correlate with actual behavior? And if the empirical evidence for NPS really boils down to a simple replication of intention-behavior correlation, aren't we back to conceptual questions about behavior intentions not being a sufficient basis for measuring and managing customer loyalty (e.g., Jacoby and Chestnut 1978; Dick and Basu 1994; Oliver 1999; Grisaffe 2001)?

AGREEMENTS AND DISAGREEMENTS REGARDING NPS

After all the previous questions and issues have been raised about Reichheld's one number, it should be noted that those points do not constitute a blanket rejection of everything Reichheld (2003) stated in his article. Without embracing all his points about NPS, other points clearly do fit within widely accepted views about customer loyalty

measurement and management. For example, Reichheld states:

> *"Companies won't realize the fruits of loyalty until usable measurement*

> *systems enable firms to measure their performance against clear loyalty goals – just as they now do in the case of profitability and quality goals." p. 49*

Clearly companies do need usable measurement systems to monitor progress in their efforts to achieve loyalty goals. Other points raised by Reichheld in the past and in this article also fit well with current thinking about customer loyalty. Some examples include: available technological systems greatly facilitate measurement and management of loyalty; the measurement of customer satisfaction is not enough; satisfaction is not the best predictor of repeat purchase and loyalty; customer loyalty is about more than just repeat purchase; repeat purchase can be simply from inertia, switching barriers or other factors; only a sub-segment of the customer base typically can be called truly loyal, and other points from various instantiations of Reichheld's thinking (e.g., Reichheld 1996a, 1996b, 2001, 2003).

However, other claims and premises Reichheld has advocated in his work on NPS do raise some questions and concerns: is tracking one number all that is needed to measure and manage customer loyalty; is "would recommend" the best indicator of loyalty; can a single survey item provide enough information to be actionable; does real-time customer feedback in tech-nologically-driven systems depend on one-

item surveys; are empirically-derived correlations enough of a solid basis to imply causation; is an 11-point scale, collapsed to three categories a best practice in "loyalty" measurement; what is the risk of adopting a conceptual definition or computational approach under which plausible cases can be conceived which appear to contradict the intent of the specification or calculation? Thus, after careful examination of the case advocated by Reichheld in his recent article (Reichheld 2003), an alternative conclusion can emerge which is different from his own. Namely, it is unlikely that one number is all a company needs to effectively measure and manage customer loyalty.

CONCLUSION

Ideas promoted by Frederick Reichheld have done much across the years to advance organizational attention to a collection of important topics around customer loyalty and loyalty measurement (e.g., Reichheld 1996a, 1996b, 2001). Recently, Reichheld has advocated measure-ment and management of a single customer metric – the Net Promoter Score (Reichheld 2003; 2006a; 2006b). The rapid adoption of his NPS concept by a number of extremely prominent companies (Creamer, 2006; Keiningham et al. 2007), perhaps in response to Reichheld's own advocacy and some degree of subsequent "contagion," anecdotally supports his core premise – word of mouth can have powerful effects in creating growth. Then again, to claim or demonstrate effects of positive and negative components of word of mouth is really not so new or revolutionary. The importance of positive and negative word of mouth behaviors has long been emphasized in marketing and consumer research, both in past years (e.g., Brown and Reingen 1987; Richins 1983) and in recent years (e.g.,

Anderson 1998; Luo 2007; Wangenheim 2005; Ward and Ostrom 2006).

The issue with NPS however, is not the *importance* of word of mouth, but rather Reichheld's claim that NPS is the *one and only* thing companies need to monitor and manage to realize success. There is a difference between a concept/construct being *one* important thing, versus it being *the one* important thing. When being claimed as *the* one important thing, at a minimum, Reichheld's claims can and should be scrutinized for validity, both on empirical grounds, and on conceptual grounds. Whereas recent papers have begun to address empirical testing (e.g., Keiningham et al. 2007; Marsden et. al 2005; Morgan and Rego 2006), this article has evaluated NPS conceptually by examining elements of Reichheld's original description of the NPS development. This careful evaluation of the conceptual bases of his original work raises some lingering concerns.

In light of all this, how then should NPS be viewed? NPS ultimately may be something more like a dashboard light. A dashboard light is valuable and does reveal important information about the working of the car. When the indicator gives warning, we know we are in trouble. However, we don't then proceed to manage the light (e.g., unscrew the bulb to make the warning go away). We diagnose the root cause in the engine and address that fundamental underlying issue. Once the root problem is fixed, the indicator light then takes on healthy status again. So with NPS, it may be a valuable, applied diagnostic metric. But in itself, on its own, it probably is not the one and only thing a company needs to manage for success. Neither is it likely to be an ideal operationalization of generally accepted theoretical formulations of the loyalty concept.

Perhaps when all the conceptual issues have been considered, and all the empirical data are in, NPS will retain a revised version of its "one number" status – "one number among several." While admitting additional complexity, perhaps a degree of additional plausibility also would accompany a more holistic and complete *multidimensional system* of indicators of the health and strength of a company's relationships with its customers (Grisaffe 2000). Conceptualization and operationalization of such a collection of indicators, perhaps including NPS, should be viewed contextually in relation to a) controllable organizational actions that can causally drive various metrics upward, and b) the consequent customer behaviors that demonstrably drive firm financial performance. Also included could be other functional and competitive indicators of health, strength and growth. Helping companies succeed financially in the long run would thus involve understanding, measuring, and managing the *total system* of indicators capturing customer experiences with, attitudes toward, and responses to, the total offering of the organization as a collective (e.g., products, services, and other intangibles) (Grisaffe 2000). Certainly, the specifics of any such system also should be subject to conceptual and empirical testing, even precisely against the notion of a singular NPS metric. While there is a tempting simplicity of a "1 number needed for growth" approach,

and while its figurehead is widely respected, in light of conceptual considerations presented here and elsewhere, perhaps a more multidimensional perspective on customer loyalty metrics ultimately will win the day.

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