

# 'Inside-out' or 'Outside-in'; how Business Process Re-engineering and Six Sigma promise but fail to consider the customer

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## Abstract

In this article we look at how BPR, Six Sigma and by extension Lean fail to adequately consider the customer and how by integrating Customer Experience Management processes you can help re-orientate any programme towards an 'outside-in' customer perspective.

In spite of the fact that it was always the intention that improvements to customer value-add would be the real driving force behind any implementation, the reality is that these programmes have been subverted to promote an internal cost-cutting agenda. To put it simply if you are using these techniques to cut costs then you are not doing BPR, Six Sigma or Lean.

To quote business guru's Hamel and Prahalad, corporations 'can't shrink into greatness.'



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### Any Questions

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## Abstract

BPR, Six Sigma and Lean are constrained by their inside-out view of business processes, being aligned more to a cost cutting than a value-creating or maintaining agenda. Indeed, the limitations of a purely cost cutting focus has been recognised by management gurus, Hamel and Prahalad (1994), who argue that re-engineering – when applied as a cost cutting tool – leads to “corporate anorexia”, and that corporations “can’t shrink into greatness”. Instead, they argue, companies should define their core competencies and try to use them to aggressively and proactively define the future of their industries and markets<sup>1</sup>.

In our view as cost efficiency becomes maximised, the key differentiator therefore lies in understanding the innovation process (i.e., value creation). Hence, firms need to re-invigorate their BPR and Six Sigma to take account of value. Without this BPR and Six Sigma/Lean risk going the way of Total Quality Management (TQM); once a good fad, but now, according to Business Week, “dead like a pet rock” (Byrne, 1997).

But how can firms reinvigorate BPR and Six Sigma/ Lean initiatives?

The answer lies in merging these programmes with Customer Experience Management (CEM), for it is only through understanding the effects of a programme on consumer decision-making that these can be revitalised towards value creation. In effect, CEM offers just such a superior consumer insight, due to its focus on understanding the ‘holistic’ effects of any firm’s engagement with their consumer base.

In short, in the CEM view consumers are not treated just as ‘rational satisfied actors’ but also possessing of emotional responses. Hence, the measurement and understanding of emotions is a key area that should be appreciated alongside the usual insight measures of satisfaction. Fortunately, this is a component of CEM easily integrated into BPR/ Six Sigma/ Lean’s statistical and methodological orientation, through Beyond Philosophy’s Emotional Signature® product and associated procedures for re-engineering service design towards emotional response.

Furthermore, in its process orientation CEM fits in well with many current initiatives i.e., the touchpoint mapping approach of ‘breaking down processes into manageable pieces and improving each piece to affect the overall performance’.<sup>2</sup> Once again, the journey the consumer makes with you is ill-considered in the outcome orientated approach of traditional consumer insight.

By integrating CEM procedures the customer can thus become the focus for any change event, in effect, customer demand ‘pulls’ the change plan.<sup>3</sup>

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<sup>1</sup> Re-engineering for Business Option Value

<sup>2</sup> Six SigmaInsight

<sup>3</sup> The State of BPR: A search for success factors, TQM, January 2005



## The advantages and disadvantages of BPR and Six Sigma

BPR and Six Sigma grew in appeal in the late 1980s and through the 1990s due to its early success in responding to a market environment characterised by increased competitive entry, a failure to satisfy customer needs and an insufficient cost structure<sup>4</sup>. In particular, it offered an 'unbiased review of a company's business processes' that enabled streamlining and efficiency benefits.

By 1993, as many as 65 percent of Fortune 500 companies claimed to have initiated re-engineering efforts; adoptees such as Taco Bell claiming that this had led directly to a 22 percent growth in revenues by 'rethinking who the customer is and by focusing on enhancing activities that bring value to the customer'.<sup>5</sup>

Likewise with Six Sigma, by 2006 Motorola has reported a total saving of \$16 billion whilst GE claimed to have saved more than \$1.5 billion beyond its initial investment in a period of 4 years<sup>6</sup>. In addition, its impact is seen not just in terms of cost savings but also in rates of customer satisfaction. Bank of America, for instance, attributes a 10.4 percent increase in customer satisfaction and a 24 percent decrease in customer problems to Six Sigma.<sup>7</sup>

Beyond its contribution to the bottom-line, Six Sigma's popularity is also due to its measurement approach and rigorous process design which fits in with the quality and business themes of customer focus and process improvement. For corporate executives it provides an executable methodology focused on the key steps of leadership, customer focus, strategic goals, improvement project selection, training and execution, resources and communication,<sup>8</sup> alongside the development of 'blackbelt' training of experts.

This methodological appeal can be easily appreciated through its clearly defined implementation phases. In particular, the five phase improvement cycle summarised by the DMAIC acronym outlined as follows<sup>9</sup>:

- Define: define the customers and their requirements; the team charter and the key processes impacting the customer.
- Measure: identify key measures, data collection plan and processes in question.
- Analyse: analysis of the data collected and the root causes of any problems.
- Improve: determine the potential solutions.
- Control: develop, document and implement a plan to ensure performance improvement.

Furthermore, some of the early adopter companies remain committed to its practice today e.g. Bank of America, Honeywell International and Caterpillar.

However, as appealing as this may seem, with time it has become increasingly apparent that not only has room for cost efficiency become increasingly difficult to find but also that cost reduction is a short-term fix that risks undermining your 'value differentiator.' Hence, for most implementations the 'Achilles heel' has been in its inside-out perspective where the focus is less on the customer and more on process efficiency and cost savings with a consequent lack of structure in

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<sup>4</sup> Wikipedia

<sup>5</sup> BPR, a theoretical framework and an integrated model, Motwani, Kumar and Jiang

<sup>6</sup> Wikipedia

<sup>7</sup> Six Sigma

<sup>8</sup> Breyfogle et al. 2001

<sup>9</sup> Pande et al. 2000; Eckes 2001



mapping customer response and an overdependency on customer satisfaction measures.

There is therefore a need for a paradigm shift in the approach to customer centricity within BPR and Six Sigma not least in the need to apply best practice CEM insight that delivers a more rounded understanding of how any change programme impacts not just rational satisfaction but emotional commitment; and increasingly in a networked world, word of mouth.

## From Success to Failure

To justify this need for change it is important to highlight how from initial success a consensus is being drawn that the original revolutionary intent has become little more than, if not a damp squib, then a 'narrowly designed approach to fix an existing process that fails to come up with new or disruptive products.'<sup>10</sup>

For instance, a 2005 QualPro survey of 60 Six Sigma implementations found that the vast majority have underperformed on the stock market. Similarly the Hackett Group found that while 86 percent of finance shared-services organisations use Six Sigma, these have only achieved incremental gains<sup>11</sup>.

Other commentators report on the failure of BPR. For instance, Caron et al. (1994) report a 50 per cent failure rate, while Murphy (1994) reports a failure rate of 70 per cent. However, it is quite probably the case that many failures may go unreported since the organisation will understandably not want to publicise the fact, or, indeed, may not even survive to tell the tale.

Certainly, many companies only begin to consider BPR when they are faced with a survival-threatening crisis and radical surgery is required. For example, Rank Xerox were forced to reengineer their business processes when their market share plummeted from 90 percent to 9 percent following the entry of Japanese competitors into their marketplace (Hammer & Champy, 1993)<sup>12</sup>.

Anecdotal evidence further supports the contention that BPR and Six Sigma implementations are not as successful as originally assumed. For instance, although Xerox 'trumpets' its Six Sigma legacy from the 1980s, it ranks lower in quality than Canon and Toshiba. Likewise, Sprint although cited as a major Six Sigma consultancy client still demonstrates more operational concerns with static/ interference than Verizon whilst Ford was below average in a 2004 quality study of car manufacturers despite its adoption of Six Sigma in 1999; the highest quality ranking went to Toyota which did not use Six Sigma.<sup>13</sup>

Perhaps one of the major issues cited in failure is how a business process re-engineering methodology such as Six Sigma whilst successful within tightly defined manufacturing environments used to measure defects, is less successful in other environments where commodity process redesign is less of an issue than understanding the customer environment. To quote, 'critics have long contended that the further Six Sigma strays from its manufacturing roots, the less effective it becomes'<sup>14</sup>.

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<sup>10</sup> Wikipedia

<sup>11</sup> Six Sigma

<sup>12</sup> Business Process Reengineering: putting theory into practice, Fitzgerald and Murphy, Executive Systems Research Centre, University College, Cork, Ireland

<sup>13</sup> Consultant Debunking Unit

<sup>14</sup> Kaplan and Norton (1996)



## How BPR and Six Sigma use the Voice of the Customer

Whilst it is true that the intent to include the customer is well established within process methodologies, the measurable output remains focused on customer satisfaction and traditional research metrics. For instance, companies would 'qualitatively assess' where our stakeholders want to be?' and 'what our customers needs are against a cost benefit analysis'<sup>15</sup>.

Indeed, in Qualtec's 2005 global survey on Six Sigma initiatives, 92 percent of companies stated that they factored in customer requirements, 54.2 percent stated that they employed a voice of the customer performance improvement system and 50 percent were looking at alignment with customer issues as the next area for performance improvement<sup>16</sup>.

However, the approach to problem resolution lacks robustness for while understanding customer needs is key to programme success there is an over-reliance on a market research process that falls short of the detailed assessment regime attached to other BPR and Six Sigma processes.

Certainly this lack of customer focus has been highlighted as a cause of concern. Commentators such as Davenport have stated how a 'failure to understand the customers' viewpoints in any business re-engineering project is a key point of failure'<sup>17</sup>. Likewise, most research seems focused on 'internal implementation issues rather than the fundamental failure of customer understanding and how to embed this in re-engineering work'<sup>18</sup>.

Nonetheless, in spite of this failing, there are what might be called half-hearted attempts to correctly embed the voice of the customer in Six Sigma and BPR processes. Unfortunately, beyond vague applications of outside contractors, focus groups and needs identification there is very little in the way of process control and specifics behind what should be the guiding rationale for all BPR and Six Sigma initiatives.

However, this is not true of every initiative. Some of the more enlightened certainly talk about 'customer experiences' and 'customer expectations'. These are typically those organisations that are most aware of the importance of innovation, not just process efficiency<sup>19</sup>. Starwood Hotels, for instance, talks not just about innovation but the need to execute across business silos rather than efficiency within specific processes. In this case, taking a more 'experience-led approach' 'the group's lead conversion rate jumped from 8 percent to 33 percent during the first month of the new sales system's operation.'

It has also been noted in the literature that even where customer satisfaction is treated as the key metric for improvement there is a recognition of 'experience value'. According to Citibank CEO, 'as improvements increase, expectations increase. Customer perceptions will change and they will drive you to places you never knew existed'<sup>20</sup>.

This customer led approach has also been extended to include the internal customer such as in the 2000 implementation Six Sigma at Ford. Recent

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<sup>15</sup> Business Process Re-engineering: putting theory into practice, Fitzgerald and Murphy

<sup>16</sup> Exclusive Worldwide Six Sigma, QualTec 2005

<sup>17</sup> Allen and Naflus, Davenport and Furey

<sup>18</sup> The implementation of BPR, Grover, Jeong, Kettinger and Teng

<sup>19</sup> Innovation equals change

<sup>20</sup> Six Sigma's focus on total customer satisfaction



approaches have thus tried to redress the balance, arguing that 'customer support should be a key ingredient in process redesign efforts; the tendency being currently to focus on workflow without consideration for the customer.

Indeed, customer support 'must be part of the change plan as they are the reason for transformation in the first place. An organisation would in fact not need to change if customers were already delighted<sup>21</sup>.'

Therefore, innovation changes can be delivered but only where the concept of customer experience and its delivery are understood and embedded within BPR and Six Sigma. This is essentially the next movement in re-engineering initiatives, how to be efficient yet also create value for customers through innovation; a movement that is ideally suited to Customer Experience Management.

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<sup>21</sup> The State of BPR: A Search for Success Factors, TQM, January 2005

## Management Summary

Although the original definitions of Business Process Re-engineering (BPR) and Six Sigma focused on the benefits of streamlining physical processes, it was always the intention that improvements to customer value-add would be the real driving force behind any implementation. In essence, the customer was at the heart of things, or as Davenport put it, 'processes are the structure by which organisations do what is necessary to produce value for customers.'<sup>22</sup>

This view was further supported by the 'founding father' of BPR, Michael Hammer. To quote from his seminal 1990 Harvard Business Review article<sup>23</sup> any work not being done to add customer value should be removed and not accelerated through automation; a view supported by Thomas Davenport in a paper published at the same time as Michael Hammer, in the Sloan Management Review.

In much the same way, Six Sigma, which developed out of Motorola's Total Quality Management system in 1987, emphasises a data driven statistical approach to manufacturing which also has at its centre the idea of customer value-add; a customer centricity that is reflected across all component stages of Six Sigma as follows:

- 'Define' stage: where those customer attributes that represent the critical features of quality are identified and the 'voice of the customer' embedded within the implementation.<sup>24</sup>
- 'Defects' stage: where any failure to deliver on customer wants is determined as a defect.
- 'Variation' stage: where what the customer sees and feels becomes the variant.
- 'Design' stage: where all processes are matched to customer needs.<sup>25</sup>

Therefore, although Six Sigma's stated aim is to achieve only 3.4 million defects per million opportunities, in practice it achieves this through an 'organisational commitment to creating customer value through process excellence; in other words, a cultural shift to focus on the customer.'<sup>26</sup>

However, in truth the standard definitions of both BPR and Six Sigma included the customer implicitly not explicitly. For instance, BPR was described as 'a management approach aimed at enabling corporate improvements through the elevation of efficiency and effectiveness of existing processes within and across organisations'<sup>27</sup>. Likewise with Six Sigma defined in 2002 by Pande and Holpp as 'a statistical measure of the performance of a process or a product; a goal that reaches near perfection for performance improvement and a system of management to achieve lasting business leadership and world-class performance.'<sup>28</sup>

What this has meant in practice is that any improvement in customer value has become an assumed output from increased internal process efficiency. Therefore, rather than understand 'in totem' the customer viewpoint and what it means to add-value, firms have taken an inside-out perspective by assuming that current

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<sup>22</sup> Strategies for BPR: evidence from field studies; Michael Earl, Jeffrey Sampler, James E Short

<sup>23</sup> Wikipedia.com

<sup>24</sup> Six Sigma and Kos cost

<sup>25</sup> Wikipedia.com

<sup>26</sup> Six Sigma

<sup>27</sup> Wikipedia

<sup>28</sup> Implementing and Applying Six Sigma in Construction, Pheng and Hui



processes add value, current research processes are sufficient and ironically for a such a process driven methodology, process mapping the customer viewpoint is not a requirement.

This inside-out view certainly delivers a sense of security; companies comfortable in the view that what they know and assume about customer value is in fact true. It also keeps blackbelt Six Sigma specialists and process engineers within their comfort zone to drive forward a cost cutting and streamlining agenda. Unfortunately, this is also a misleading approach that represents a disconnect from the original ideal of both BPR and Six Sigma.

There is therefore a definitional crisis where customer value is intended but not specified except in broad terms of customer satisfaction and from a process view the customer seems almost like an afterthought.

## Contacts

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