

Strategy mapping: an examination of a homebuilder's performance measurement and incentive systems

Research executive summaries series

Vol 5, Issue 6

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1. Overview and objective

The last decade has seen marked growth in the building of 'strategy maps' (a.k.a. 'business models') that link non-financial and financial performance measures. Then managers focus considerable attention on improving the non-financial performance 'drivers' that are included in these models. Many companies base portions of their managers' incentives on the key non-financial elements of these business models.

Not surprisingly, measures of customer satisfaction are among the most common non-financial measures included in these business models and incentive systems. Intuition suggests that customer satisfaction should be a leading indicator of future financial performance. Pleasing customers today should reduce price elasticity, lower marketing costs, and improve customer retention, leading to higher future revenues and profits.

If customer satisfaction is a reliable leading indicator of future financial performance, then managers should focus intensively on the measures of customer satisfaction. Customer satisfaction scores provide more timely indications of possible performance problems and, if linked to incentives, more timely motivational reinforcement than do the financial performance measures.

But can this customer satisfaction/financial performance link be demonstrated empirically, and if so, what are the time lags between improved customer satisfaction and higher financial performance? Few companies have addressed these questions, and academic research has only recently begun to examine them. To date, no studies have focused on satisfaction/financial performance relationships in the home building industry, but findings from studies in other industries might shed light on how this relationship works in the home building business.

The evidence to date is surprisingly mixed. Some studies have found the expected links between customer satisfaction and future financial performance. For example, one study in the hospitality industry found the expected relationship, with customer satisfaction leading financial performance by about six months. Another study, of fast food restaurants, found that customer satisfaction leads financial performance by about one year.

Other studies, however, have failed to find the expected customer satisfaction/financial performance relationship. One found evidence suggesting that the relationship is more likely to be found in manufacturing industries than in service industries.

Why is the evidence so mixed? We have identified three possible reasons.

- Firstly, in some industries customer satisfaction may not be as important as other factors in driving financial performance. Customer satisfaction seems to be a less important performance driver when products are highly standardised or when customers have little or no choice of suppliers.
- Secondly, not all measures of customer satisfaction are valid and reliable. Customer satisfaction can be measured in many ways. We know very little about how measurement alternatives affect the strength of the relations between non-financial measures and future financial performance. It is important to study the impact of different measurement alternatives on non-financial performance measures' forward looking properties because poorly constructed non-financial measures would distort manager performance and lower the quality of managerial decision making.
- Finally, in some situations, companies may actually be spending too much money to improve customer satisfaction. The attempts to improve customer satisfaction may be costing more than the value of the improvement.

The main factor limiting progress in this area is access to data. Our research site provides us with a unique opportunity to address this limitation. Drawing on the principal investigator's well established relationship with the research site, we explored the development, implementation, and evaluation of a homebuilder's strategy map and the associated performance measurement and incentive systems.

Our research site is a major U.S. homebuilder (hereafter 'Modern Classic Homes') that has designed a performance measurement and incentive compensation system around a strategy map that includes customer satisfaction, employee satisfaction, and financial performance measures. But what makes the site particularly interesting is the fact that this company tracks two distinct sets of customer satisfaction measures using the methods and services of two independent consulting companies: a national multi-industry consumer sentiment survey firm 'NF' and a boutique customer satisfaction consulting firm that specialises in the homebuilding industry 'BF'. Further, the measures from the boutique consulting company are gathered at three different points in time – 30 days, five months, and 11 months after the time of the home purchase.

Figure 1 summarises Modern Classic Homes' strategy map. However, as is true in most companies, managers at this research site had not tested either the validity of the assumptions underlying their strategy map or the

effectiveness of the incentive contracts built around the strategy map. Conducting these tests and suggesting changes were the objectives of this study.

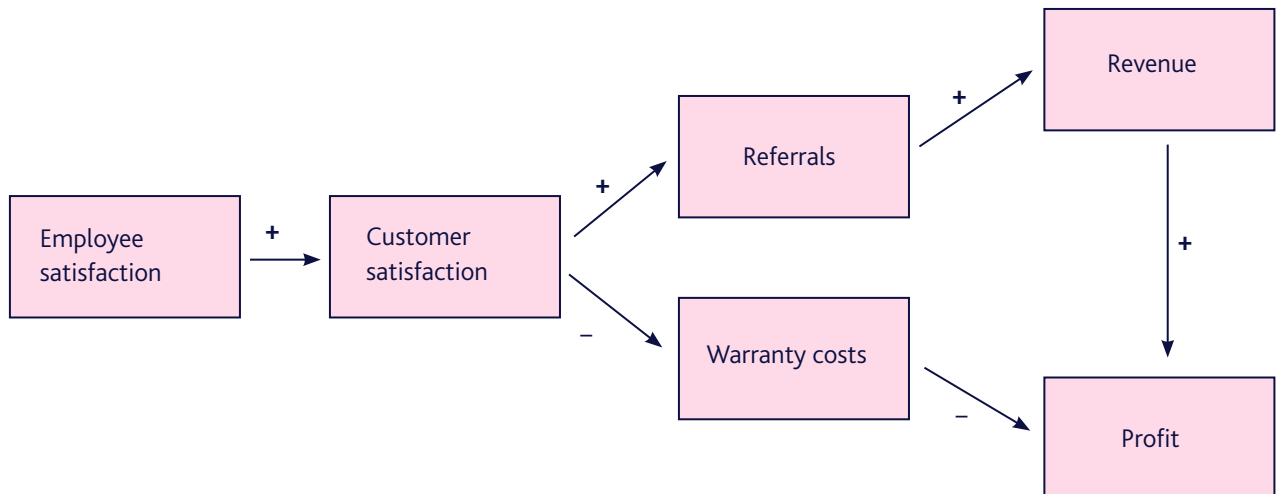


Figure 1
Pictorial illustration of the Modern Classic Homes business model

2. Findings

We collected four sets of data from Modern Classic Homes: financial data, customer satisfaction data provided by NF, and customer and employee satisfaction data provided by the boutique customer satisfaction firm that focused on the homebuilding industry BF, and we have the following findings:

- Firstly, we found that it is simplistic just to talk about a single customer satisfaction or employee satisfaction measure. Both customer and employee satisfaction are multi-dimensional constructs. For example, we found that one of the customer satisfaction measures contains five distinguishable dimensions.
- Secondly, we found that the different measures and dimensions of customer satisfaction are not equally informative. Our findings suggest that the timing of measurement of customer satisfaction matters in that more timely satisfaction measures provides more useful predictors of future financial performance and other outcome variables.
- Thirdly, we found that customer satisfaction and financial performance are not linearly related; there are diminishing returns to the improvements in

customer satisfaction. In fact, homebuyer satisfaction that is only 'moderate' may be optimal in many situations.

- Finally, we found only a weak positive association between employee satisfaction and customer satisfaction. We found that the relationship between employee satisfaction and customer satisfaction becomes stronger when there are more interactions between the employees and the customers.

3. Managerial implications of the findings

This study has important managerial implications. Our study illustrates the importance of continuously validating firm specific strategy maps. The mixed results regarding the relationship between customer satisfaction and future financial performance suggest that managers need to be more sophisticated in their management of customer satisfaction. They need to learn where it is important to pay attention to customer satisfaction measures, rather than other performance factors. If customer satisfaction is important, they need to learn how, when, and where to best measure it. They need to assess both the benefits and costs of improving customer satisfaction ratings so that they can determine whether further improvements

are cost beneficial. Will investments intended to improve customer satisfaction provide higher returns than those intended for other purposes? Also, they need to test these relationships empirically, rather than just relying on their intuitions.

For example, managers at our research site believe that delighting customers to the greatest extent possible - creating ‘evangelical buyers’ is the best way to ensure strong financial performance in the future. However, can homebuyers be satisfied ‘too much’? To answer this question, we analyse the returns to the improvements in Modern Classic Homes’ various customer satisfaction measures.

Figure 2a plots the BF move-in (30 day) customer satisfaction against the associated one-year-ahead profit and shows that the point of diminishing returns starts at about the 95% level (or 5.8 on a six point customer satisfaction scale).

Figure 2b shows that the point of diminishing returns starts at around the 90% mark for the BF mid-year (5 month) satisfaction measure and Figure 2c shows that the point of diminishing returns starts at around the 80% level for the BF year-end (11 month) satisfaction measure.

Figure 2
Relationship between BF customer satisfaction measures and one year ahead profit

Figure 2a: Relationship between BF move-in satisfaction and one-year-ahead profit



Figure 2b: Relationship between BF mid-year satisfaction and one-year-ahead profit

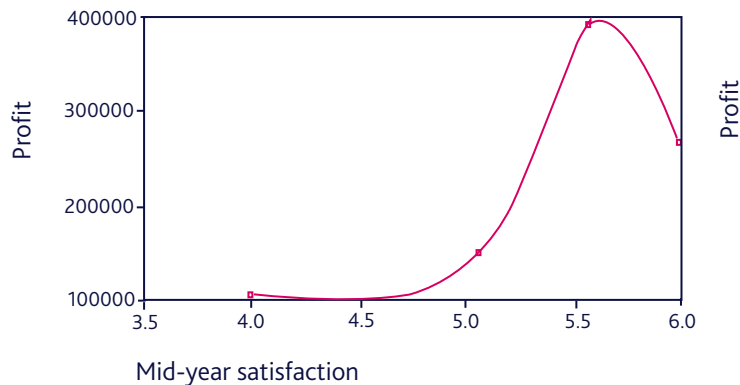
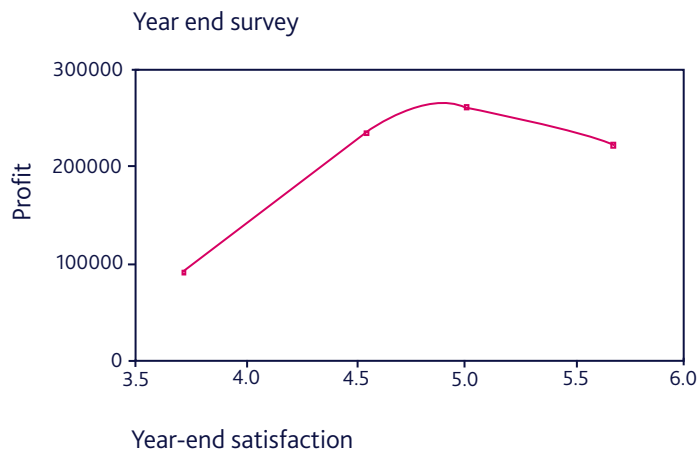


Figure 2 (Cont.)

Figure 2c: Relationship between BF year-end satisfaction and one year-ahead profit



In summary, these results suggest that, contrary to managers' intuitions, extremely high homebuyer satisfaction is not necessarily desirable. 'Moderate' homebuyer satisfaction may be good enough and companies can overspend on satisfaction. This example illustrates the importance of testing the costs and benefits of improving each variable in strategy maps with data, rather than just relying on managers' intuitions.

4. Conclusions

Evidence presented in this study challenges the idea of measuring customer satisfaction with a single 'key measure' as well as the idea of measuring customer satisfaction with a generic survey across diverse industries.

We have shown that constructs, such as customer satisfaction, are much more complex than that. It is not until we fully understand their complexity that proper measurement and understanding of their consequences can be achieved.

Our study also documents the difficulties and obstacles in the process of testing, revising, and re-evaluating the strategy map and the incentive system. This should provide a 'reality check' for companies who attempt to test their strategy maps. The outputs of the project provide a faithful portrait of the costs and benefits of constantly validating and revising firms' strategy maps and incentive systems.

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Project sponsored by General Charitable Trust.