

Capturing synergy between customer satisfaction and energy consumption

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Abstract

Regarding the nowadays increasing energy consumption it is vital important to focus to customer behavior. In this study paper, the authors undertook examination of research studies in order to reach a broad overview and understanding the behavior and tendencies of synergy between customer satisfaction and energy consumption.

Keywords: households, synergy, customer satisfaction, energy consumption, energy saving.

Introduction

In recent years, practitioners and academic community have dedicated their attention for the importance of synergy. Synergy is the fundamental foundation for the successful performance of multi-business firms due to its ability to mitigate costs, enhance efficiency, generate profits. Hence, the prevalence of synergy is obvious. So, attaining synergy is the priority of multi-business firms. Such authors like Hoskisson, Hill and Kim, 1993, Iversen (1998) who also state that researches on this concept ends with inconclusive results in the context of academic world. But the shortage of scholarly insights on this particular notion requires more investigation. Specifically, this article aims to scrutinize the synergy within two elements – customer satisfaction and energy consumption. Analyzing the energy consumption coming from various fuel types, it is seen that the World's demand is constantly growing. And since electricity usage is such a complex process and consists of various behavior modifications, it is difficult to link all the activities and develop a comprehensive model of what electricity conservation could mean in everyday life. But nevertheless, it is an interesting research area which aims to dig deeper - to be more precise, via human's psychology analyzing energy consumption problem.

The object of the study is: synergy between customer satisfaction and energy consumption.

The problem of this particular paper: how to capture synergy between satisfaction and energy consumption?

The aim of this paper is to analyze the synergy within two elements – customer satisfaction and energy consumption.

The objectives comprise of these main steps:

1. To present the theoretical background of synergy.
2. To examine customer satisfaction.
3. To analyze energy consumption.

Novelty of the article: This paper will be useful to extend the understanding of the synergy through two aspects – customer satisfaction and energy consumption. It will help to the current and future strategic managers, scientists understand and take faster and more proper decisions while seeking their goal of gaining the synergy in the companies or extending the theoretical literature's findings.

The methods of the study are:

- Logical and comparative analysis of literature;
- Synthesis and deduction;
- Graphical methods.

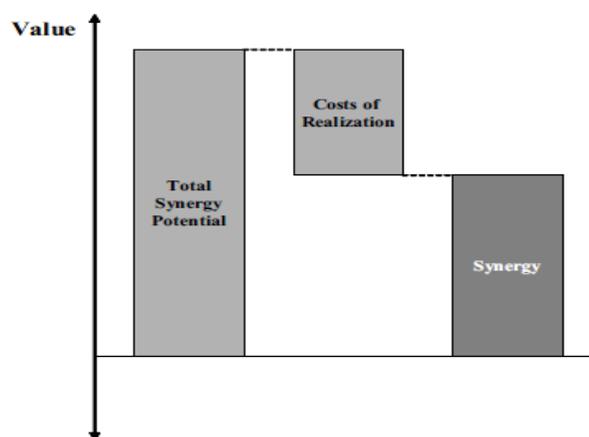
Theoretical perception of synergy

According to Goold and Campbell (1998) the roots of word “synergy” has derived from the Greek word “synergos” and has meaning of working together. This concept was firstly represented for the business literature by Ansoff (1965). Witcher and Chau (2010) explained synergy as a concern of every large company where the main issue is to make each part collaborate efficiently in order to attain the strategically important aims. The same authors admit that it is the fundamental reason for the company’s development. But traditionally, synergy is related with value generation through mergers and acquisitions (Indanon, 2007). And this is also pinpointed by Sharma and Thistle (1996) who stated that generally, the primary motive for merger is synergy. Meanwhile, Capon (2009) associated synergy with opportunity regarding firm’s capabilities and resources. Further, Delios and Sing (2005) think that it is the combination of assets which aim to increase the efficiency, effectiveness or value. The value aspect as the outcome of synergy is stressed by Goold and Campbell (1998), Martin and Eisenhardt (2001). As Singh and Montgomery (1987) highlighted that value is generated through the strengthening capabilities and crucial positions. The beneficial outcomes of synergy have been listed by Morden (2007, p.557) and encompass:

- Scale effects or movement down the experience curve
- Capability enhancements that permit the enterprise to compete in wider national and international markets
- Entry to markets that were hitherto inaccessible
- The ability to employ more highly specialized and productive capacity and personnel. This, in turn, may lead to the development of new and distinctive competencies that again increase the scope or scale of the operation, or yield competitive advantage
- Increased investments in knowledge management, competence development, research and development, innovation and new product or process development.

In addition to this, Knoll (2008) has proposed a rationale for not gaining absolute potential of combined resources. And the solid argument for this is the reason that putting resources together and managing them is expensive activity. The costs could accommodate restructuring, layoffs, investments in new assets, also it would require time (Delios and Singh, 2005). In this particular case, some authors have suggested the expressions like “net effect synergy” (Knoll, 2008), or “net synergy” (Whitaker, 2012; Emott, 2011, DePamphilis, 2012) and both examples demonstrate the difference between total synergy potential and dyssynergy (Karenfort, 2011) or costs to attain it. The visual aid (Figure 1) of this process is offered by Knoll (2008).

Figure 1. Formation of net synergy.



Source: Knoll (2008), p.15.

In this context the aforementioned features of synergies leads to a general understanding of this concept which could be examined in various means. And it is obvious that authors have not yet agreed on the consensus of synergy classification.

Academic perspective of customer satisfaction

The concept of customer satisfaction is commonly used in the business world. According to the document of Kenya Institute for Public Policy Research and Analysis: „It is a measure of how products and services supplied by a company meet or surpass customer expectation“. So, generally it is stated to be the main business activity or service delivery indicator. Meanwhile customer satisfaction is the client's evaluation of the particular service or product and taking into consideration the extent to which product or service has met his or her expectation. Hence, it can be interpreted as the emotional form of assessment. Regarding the idea of Aldlaigan & Buttle (2005) customer satisfaction is the term which explains the presence of consumers wants that should be realized. What is interesting, Hill, Roche & Allen (2007) call customer satisfaction as a comfortable phrase that explains the overviews and feelings of customers regarding their perception of organization. But consumer satisfaction index is an economic indicator which enables to measure the customer satisfaction. Therefore, this particular index has become of a vital importance for the companies and organizations in order to maintain the customer loyalty and gain the competitive advantage in the volatile market place.

The importance of customer satisfaction is based by the advantage of better company performance and it is also proved by Stokes (2000). To be more precise, Zekiri and Angelova (2011) note that customer satisfaction has a positive impact on the profitability. Rich & Orr (2011) also agree that customer satisfaction leads to higher revenues. Moreover, Chen (2006) convinces that enhancement of customer satisfaction is the key element in the company's competitive strategy. The involvement of customer satisfaction in strategy planning is based by Cochran (2003) who gives trivial arguments and these are:

- **Customer satisfaction is the furthestmost goal.** So, if a human quest is being reached via positive outcomes there is an obvious fact to gain the financial goodness. In addition to this, this relation – correlation between customer satisfaction and revenues - is being proved scientifically.
- **Customer satisfaction is an investment.** It should be noted that customer satisfaction cannot result in positive outcomes within overnight. Of course, it requires time to identify, examine, upgrade or integrate the tools and elements, which play a key role in the perception of customer satisfaction.
- **Everyone must be brought in.** The same author Cochran(2003) stresses that all personnel have the capability to influence the customer satisfaction at some level. Therefore, synergy has to be reached among all employees. This can be reached, for example, via clear communication or good rapports among employees.

For instance, Varma (2002) highly believes that customer satisfaction is becoming a next competitive factor. The explanation for this could be based by the wide spectrum of benefits raised from customer satisfaction and these are higher loyalty, market share, improvement of reputation, new customer base attraction, which also results in costs reduction (Sheth & Sisodia,1999).

Taking into consideration the customer satisfaction index it is worth noting the model. Mainly it is based on the great variety of theories examining consumer behavior, customer satisfaction, service quality (Fornell et al., 1996). Of course, there is a standard type of the model

with some variations regarding the countries for instance, Swedish, American, European, Norwegian or other. For example, European Customer Satisfaction Index adopts 6 constructs: image, customer expectations, perceived quality of hardware and software, perceived value, customer satisfaction, and customer.

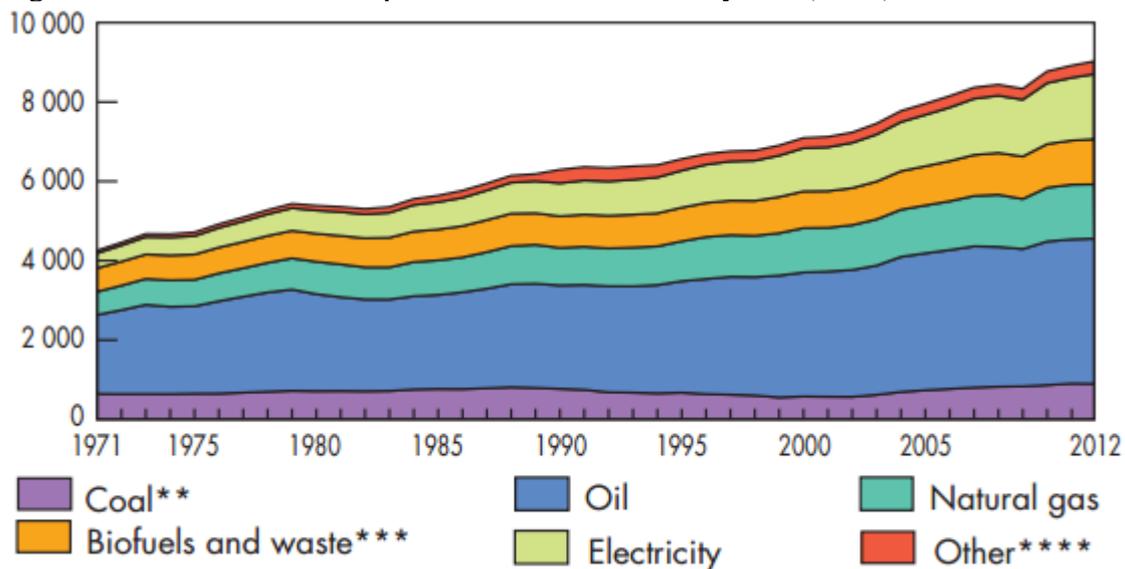
In overall, it could be concluded that customer satisfaction is one of the chief performance indicator that positively influence company’s financial position. As customer satisfaction could be used for the future behavior prediction (Oliver,1999), so, it should not be considered as a non-durable object, on the contrary, it should be implemented in every single activity due to its wide network of interrelationships with loyalty, word-of-mouth, profitability, market share. And therefore, should be regarded as a tool to obtain competitive advantage.

Energy consumption

Analyzing the sectors of energy consumption it is seen the four key consumption sectors and these are: residential, transport, commercial and manufacturing. The main consumer sector of petroleum products is transport sector. This sector is followed by manufacturing sector and some subsectors such as agriculture, tourism and etc. Scholars often face an issue of analyzing and planning the demand of energy products. Following this issue the most common analysis of energy demand is made as a whole. As an example can be taken the split of theory which states that household energy demand is used for consumption and the commercial and industrial sectors are using the energy as an input of making a product. Each source of energy has its advantage and disadvantage, the implementation of various policies and strategies are used to impact the access, secure the supply and achieve the efficiency to satisfy the energy demand. This policy and strategy is implemented by each of the country or unions (Kippra, 2010).

Analyzing the energy consumption coming from various fuel types, it is seen that the World’s demand is constantly growing. The oil is the biggest provider of energy and it is growing constantly as all of the energy sources, the only source which has a constant supply of energy in the World’s market is coal.

Figure 2. World final consumption from 1971 to 2012 by fuel (Mtoe)



Source: International Energy Agency (2014).

According to Fischer (2008) electricity and sustainable consumption hardly correlate together and households are difficult target to analyze. Taking one country from the scope, as the author considers Germany's example, energy consumption in households has very fast growth while electricity consumption is growing even faster. Analyzing the index of energy consumption can have various interpretations as for example the end users are receiving more electricity from renewable or other less environmentally harmful sources, or it could be the indicator of increased usage of appliances and the increased duration of usage which is the negative outcome of the global goal to decrease the energy consumption. These days the conservation of electricity is difficult task and it cannot be compared to other consumer goods. The electricity is abstract, untouchable and also invisible. Also comparing its consumption with other consumer goods, it has no direct usage, it is used indirectly through various energy services. These days electricity is used in every step, cooking cleaning, playing, everything requires electricity. Also, the electricity conservation starts not at the point of its usage, but at the point when particular equipment is bought, as an example, television, washing machine, microwave, hair drier. As electricity usage is such a complex process and consists of various behavior modifications, it is difficult to link all the activities and develop a comprehensive model of what electricity conservation could mean in everyday life. Adding to the point, the customer usually receives a feedback for the whole consumption, but the information is not sufficient for analysis or special actions even for each individual.

Concluding remark: *how to capture synergy between customer satisfaction and energy consumption?*

Capturing synergy between customer satisfaction and energy consumption requires strategy. In this particular case, the previously mentioned Cochran (2003) steps could be the main pillars as the starting point. And these are customer satisfaction is the furthestmost goal, customer satisfaction is an investment and everyone must be brought in.

So, firstly, citizens should be presented with the proof that there is an obvious fact to gain the financial goodness, meaning saving their money. Darby (2006) states that key action for electricity consumption sustainability improvement is the feedback on consumption cost and environmental impact. According to the analysis of an author was found that improved feedback could reduce the electricity consumption by up to 20%. All in all the energy saving is directly linked to psychological model, so it is important to have feedback design which would provide the best results. Secondly, there should be arguments prepared that it is a long term investment which pays back. And, thirdly, collaboration of all stakeholders is vital for reaching the result.

But on the other hand, Darby (2006) states that electricity, as a product, has a low emotional involvement in customer satisfaction, so it is hard to be proud of usage of behavior and making the influence to other people or to worry about. Of course, electricity is a necessary product for each person and the supply of this product is crucial for daily life, however the specific features do not matter much. But comparing it to products such as organic food or other sustainable products, the sustainable electricity is not easy to transfer as sustainable element of lifestyle. In addition to this, electricity's price is not worth to have big influence on household's budget. Concluding, these days the electricity can be called to be a low interest product.

References

1. Aldlaigan, A., Buttle, F. (2005). Beyond satisfaction: customer attachment to retail banks. *International Journal of Bank Marketing*, 23(4),349-59.
2. Angelova, B., Zekiri, J.(2011), Measuring Customer Satisfaction with Service Quality Using American Customer Satisfaction Model (ACSI Model), *International Journal of Academic Research in Business & Social Sciences*. 1(3), 232-258.
3. Ansoff, I. (1965). *Corporate Strategy: an analytic approach to business policy for growth and expansion*. New York: McGraw-Hill
4. C. Fischer (2008) Feedback on household electricity consumption: a tool for saving energy? *Energy Efficiency* Volume 1, Issue 1 , pp 79-104.
5. Capon N. (2009). *Capon's Marketing Framework*. New York: Wessex.
6. Chen, X. (2006). *Customer satisfaction, customer bargaining power, and financial performance*. USA: University of Southern California.
7. Cochran, C. (2003). *Customer Satisfaction. Tools, Techniques, and Formulas for success*. USA: Parton Press.
8. Delios, A., Singh, K. (2005). *Mastering Business in Asia: Strategy for Success in Asia*. Singapore: John Wiley & Sons.
9. Delios, A., Singh, K. (2005). *Mastering Business in Asia: Strategy for Success in Asia*. Singapore: John Wiley & Sons.
10. DePamphilis, D. M. (2012) *Mergers, Acquisitions, and Other Restructuring Activities*, 6th edition. USA: Elsevier.
11. Drake, C., Gwynne, A. Waite, N. (1998). Barclays Life Customer Satisfaction and Loyalty Tracking Survey: a demonstration of customer loyalty research in practice. *International Journal of Bank Marketing*, 16, 287-292.
12. East, R. and Hammond, K. (1999). Satisfaction and retention. Internet access: < <http://anzmac.info/conference/1999/Site/E/East.pdf> > [accessed September 05, 2015]
13. Emott, D.T. (2011). *Practitioner's Complete Guide to M&A's*. New Jersey: John Wiley & Sons, Inc.
14. Fogli, L. (2006). *Customer Service Delivery: Research and Best Practices*. USA: John Wiley & Sons, Inc.
15. Fornell et al., "The American Customer Satisfaction Index: Nature, Purpose, and Findings," *Journal of Marketing*, vol. 60, no. 4, 1996, pp. 7-18.
16. Goold, M., Campbell, A. (1998). Desperately seeking synergy. *Harvard Business* Vol. 76 No. 5, p.p.130-43.
17. Hill, N., Roche, G., Allen, R. (2007). *Customer Satisfaction*. London: Cogent Publishing.
18. Hoskisson, R.E., Hill, C.W.L., Kim, H. (1993). The multidivisional structure: Organizational fossil or source of value? *Journal of Management*, Vol. 19, No. 2, p.p. 269–298.
19. Huettinger, M. (2008). Cultural dimensions in business life: Hofstede's indices for Latvia and Lithuania. *Baltic Journal of Management*, 3(3), 359 – 376.
20. Indanon C. (2007). *Mergers and Performance: A case study from telecommunications*. Internet access: < http://books.google.lt/books?id=7arhcUyphNEC&pg=PA53&dq=market+power+synergy&hl=en&sa=X&ei=JxZwUd77KseotAaKpIHADA&redir_esc=y#v=onepage&q=market%20power%20synergy&f=false > [accessed September 05, 2015]
21. International Energy Agency (2014). *Key World Energy statistics*. Internet access: < <http://www.iea.org/publications/freepublications/publication/keyworld2014.pdf> > [accessed September 05, 2015]

22. Ittner, C., D., Larcker, D., F. (1998). Are non-financial measures leading indicators of financial performance? An analysis of customer satisfaction. *Journal of Accounting Research*, Vol. 36.
23. Iversen, M., (1998) *Competitive Advantage through Intrafirm Synergies*. Denmark: Copenhagen Business School
24. Karenfort, S. (2011). *Synergy in Mergers & Acquisitions*. Germany: Josef Eul Verlag GmbH.
25. Kenya Institute for Public Policy Research and Analysis (Kippra) (2010). A comprehensive study and analysis on energy consumption patterns in Kenya. Internet access: < http://www.cofek.co.ke/ERCStudy_ExecSummary_02082010.pdf > [accessed September 05, 2015]
26. Knoll, S. (2008). *Cross-Business Synergies*. Switzerland: University St. Gallen
27. Liu, B.S., Sudharshan, D. and Hamer, L.O. (2000). Afterserviceresponse in service quality assessment: a real-time updating model approach. *Journal of Services Marketing*, 14 (2), 160-78.
28. Lubatkin, M. (1993). Mergers and the Performance of the Acquiring Firm. *Academy of Management Review*, Vol. 8, p.p. 218-225
29. Martin, J. A., Eisenhardt, K. M. (2001). Exploring Cross-Business Synergies. Internet access: < <http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=9680b490-c253-4fa2-9dea-c0e4a0fce058%40sessionmgr12&vid=2&hid=24> > [accessed September 05, 2015]
30. Mittal, B., Lassar, W., M. (1998). Why do customers switch? The dynamics of satisfaction versus loyalty. *Journal of Services Marketing*, 12(3), 177-94.
31. Morden T. (2007). *Principles of Strategic Management*, Third Edition. UK: Ashgate Publishing Limited.
32. Oliver, R.,L. (1999). Whence consumer loyalty?. *Journal of Marketing*, 63, 33-44.
33. Reichheld, F., Sasser, W.L. Jr (1990). Zero defections: quality comes to services. *Harvard Business Review*, Vol. 68, 105-11
34. Rich, J., Orr, L. (2011). *Enhanced customer satisfaction*. USA: Author.
35. S.Darby (2006). *The Effectiveness of Feedback on Energy Consumption*. University of Oxford. [referred on the 28th of September in 2015 y.]. Link to the <http://www.eci.ox.ac.uk/research/energy/downloads/smart-metering-report.pdf>
36. Sawang, S. (2011). Key Performance Indicators for Innovation Implementation: Perception vs. Actual Usage. *Asia Pacific Management Review*, 16(1), 23-29.
37. Sharma, M., Thistle P. D. (1996). Is Acquisition of Market Power a Determinant of Horizontal Mergers? *Journal Of Financial And Strategic Decisions* Vol. 9 No. 1.
38. Sheth, J., N., Sisodia, R., S. (1999). Revisiting marketing's lawlike generalizations. *Journal of the Academy of Marketing Sciences*, 17 (1), 71-87.
39. Singh, H., Montgomery, C. (1987). Corporate Acquisition Strategies and Economic Performance. *Strategic Management Journal*, Vol. 8, No.4, pp. 377-386
40. Stokes, D., Wilson, N. (2010). *Small Business Management and Entrepreneurship*. Singapore: South-Western Cengage Learning.
41. Unhelkar, B. (2006). *Research in Mobile Business: Technical, Methodological, and Social Perspectives*. USA: Idea Group Inc.
42. Valentin, K., Polterauer, A. (2004). A Methodology for the Identification of Synergy Potentials: Based on the Intellectual Asset Integration in Business Cooperative Networks. Internet access: < http://i-know.tugraz.at/wp-content/uploads/2008/11/20_a-methodology-for-the-identification-of-synergie-potentials.pdf > [accessed September 05, 2015]
43. Vavra, T.,G. (2002). *Customer Satisfaction Measurement Simplified*. USA: American Society for Quality.

44. Verma V., Srivastava, R.M. (2008). Strategic Management. Concepts, skill and practices. New Delhi: PHI Learning Private Limited.
45. Whitaker, S.C (2012). Mergers and Acquisitions: Integration handbook. New Jersey: John Wiley & Sons, Inc.
46. Witcher, B. J., Chau, V. S. (2010). Strategic Management Principles and Practice. USA: South-Western Cengage Learning.
47. Yeung, M., C., H., Ennew, C., T. (2000). From customer satisfaction to profitability. Journal of Strategic Marketing, 8, 313–26.
48. Yi, Y. (1990). A Critical Review of Consumer Satisfaction. Review of Marketing, 4, 68-123.
49. York: McGraw-Hill (1990). 246. Oliver, R.,L. (1999). Whence consumer loyalty?. Journal of Marketing, 63, 33-44.