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# **Sociology of financial behavior of households**

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**HSE**

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**The logic of the unit** is to compare economic, psychological and sociological approaches to financial behaviour of households. During lectures and seminars students will be introduced with the field of consumer finances by focusing on theoretical models, research methodologies and skills, as well as the results of empirical research in Russia.

### **Unit prerequisites**

Economics (Macro), Economics (Micro), Statistics, Principles of Sociology are required for taking this course.

### **Unit Objectives**

The main goal of this unit is to develop a critical, reflexive, and interdisciplinary approach to some key concepts which are central in contemporary research on financial behaviour of households. At the end of this unit and having completed the essential reading and activities students will develop the following competences:

- Knowledge of theoretical models of households savings behaviour which are developed in economic theory, economic psychology and economic sociology;
- Analytical skills to understand and interpret macro and micro statistics on household incomes and savings, developing evidence based arguments;
- Overview of the results of empirical research on household incomes and savings;
- Research-related skills - to evaluate different research designs and methods, to formulate researchable questions, to construct questionnaire/interview guide, to write analytical reports using the data from national surveys as well focus groups discussions.

### **Assessment**

**To get the final mark on the course students need:**

**Assignment 1. – Explain why this paper was published in the academic journal/book by presenting the main ideas of one of the papers from the list of recommended readings using ppt slides and to present it during tutorials (15%)**

**Assignment 2.1 – Improve the questionnaire. During the tutorial students are given a list of 5 survey questions which have different mistakes in their wording. Students are supposed to indicate problems and improve questions to get higher construct validity of the measurement. In class (15%)**

**Assignment 2.2 – Interpret the data. Students are given a number of diagrams and tables (not more than 3) which they are supposed to interpret. In class. (15%)**

**Final exam (45%)**

## **Unit Materials**

### ***Lectures 1-2. The main concepts***

Financial behaviour of households as a research subject in different social disciplines (economic theory, economic psychology, economic sociology).

Who takes financial decisions: household, family, or individual?

Household resources and household incomes. A theoretical definition of income. Hicks' definition of income. How to operationalize this concept into empirical research.

Household income and expenditures statistics. The concept of household savings: flows of savings and stock of savings. Saving rate. Time period of measurements. Positive and negative savings.

Macro and micro statistics of savings. Savings statistics in Russia. International comparison of savings rates across countries and their dynamics.

Forms of savings. Durables and savings. Savings and investments. Savings and debts.

### ***Obligatory readings***

*Utz-Peter Reich Concept And Definition Of Income In The National Accounts, Review of Income and Wealth, Volume 37 Issue 3, 1991, Pages 235 – 247.*

<http://www.roiw.org/1991/235.pdf>

*Иванов Ю.Н., Хоменко Т.А. Проблемы и методы статистики сбережения населения в соответствии с концепциями СНС, Экономический журнал ВШЭ. 1998, Т.2, №4.С.508-515.*

[http://library.hse.ru/e-resources/HSE\\_economic\\_journal/articles/02\\_04\\_05.pdf](http://library.hse.ru/e-resources/HSE_economic_journal/articles/02_04_05.pdf)

*Stroutchenevski, A., Statistics on Savings and Investment in Russia. Russian Economic Trends, Vol. 11, Issue 1, pp. 42-47, 2002.*

<http://82.179.249.32:2069/login.aspx?direct=true&db=bth&AN=5894322&site=ehost-live>

*Crossley, Thomas. Measuring Consumption and Saving: Introduction, Fiscal Studies Volume: 30 Issue: 3-4 , 2009, p. 303-307.*

<http://82.179.249.32:2368/journal/123210104/issue>

DOI: 10.1111/j.1475-5890.2009.00097.x

### ***Additional readings***

*Smeeding, T. M., Weinberg B.P. Toward a Uniform Definition of Household Income. Review of Income and Wealth series 2001, 47 no. 1 (March), pp. 1-24.*

<http://82.179.249.32:2069/login.aspx?direct=true&db=bth&AN=6373834&site=ehost-live>

*Attanasio O.P., Banks J. The Assessment: Household Saving – Issues in Theory and Policy. Oxford Review of Economic Policy, 2001, Vol. 17, No.1, pp. 1-3.*

<http://82.179.249.32:2060/pqdlink?did=74682545&sid=1&Fmt=3&clientId=45975&RQT=309&VName=POD>

Bucks, B.K., Kennickell, A.B., Moore, K.B. *Recent Changes in U.S. Family Finances. Evidence from the 2001 and 2004 Survey of Consumer Finances*, Federal Reserve Bulletin, 2006, 92, pp. A1-A38.  
<http://82.179.249.32:2060/pqdlink?did=1258050811&sid=1&Fmt=2&clientId=45975&RQT=309&VName=PQD>

### **Lecture 3. Absolute Income Hypothesis and neoclassical economic models of household savings**

Average and marginal propensity to consume/ to save. Consumption/Savings function. Theory of J.M.Keynes and early empirical work (cross section data and time series data).

The intertemporal choice and saving (I.Fisher). Neo-classical models of savings behaviour of households: Permanent Income Hypothesis (M.Friedman) and Life-Cycle Hypothesis (F.Modigliani).

#### **Obligatory readings**

Franco Modigliani & Shi Larry Cao, 2004. *The Chinese Saving Puzzle and the Life-Cycle Hypothesis*, *Journal of Economic Literature*, American Economic Association, vol. 42(1), pages 145-170, March.

<http://82.179.249.32:2060/pqdlink?did=628334301&sid=2&Fmt=2&clientId=45975&RQT=309&VName=PQD>

#### **Additional readings**

Ando, A., Modigliani, F. *The Life Cycle Hypothesis of Savings: Aggregate Implications and Tests* (1963) *American Economic Review*, 53, pp. 55-84. Stable URL: <http://www.jstor.org/stable/1817129>

Modigliani, Franco and Richard Brumberg, 1954. *Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data*, in Kenneth K. Kurihara, ed.: *Post Keynesian Economics*, Rutgers University Press, New Brunswick, NJ, 388-436.

Deaton A. *Theoretical Foundations in Understanding Consumption*, Chapter 1, Oxford University, 1992

Poterba, James M. (Editor) *Introduction in International Comparisons of Household Saving*, University of Chicago Press, 1995, p. 1-10.

### **Lecture 4. Contemporary models of savings behaviour**

Empirical puzzles (stylised facts) of household savings behaviour. Changes to the standard life cycle model that could help solve the empirical puzzles.

Risk and household saving behaviour. Uncertainty of future incomes. Precautionary saving. Liquidity constraints. The Euler equation approach.

#### **Obligatory readings**

Orazio P. Attanasio *Consumption*, in J. Taylor and M. Woodford (eds): *Handbook of Macroeconomics*, North Holland, 2000. Pages 741-812

<http://82.179.249.32:2072/science/handbooks/15740048>

Shorrocks, A.F. (1975) 'The age-wealth relationship: A cross-section and cohort analysis.' *Review of Economics and Statistics* 57: 155-163.

<http://82.179.249.32:2069/login.aspx?direct=true&db=bth&AN=4650423&site=e-host-live>

Orazio P. Attanasio & Guglielmo Weber, 2010. *Consumption and Saving: Models of Intertemporal Allocation and Their Implications for Public Policy*, NBER Working Papers 15756, National Bureau of Economic Research, Inc.  
<http://ideas.repec.org/p/nbr/nberwo/15756.html>

#### **Additional readings**

Hall, Robert E, 1978. *Stochastic Implications of the Life Cycle-Permanent Income Hypothesis: Theory and Evidence*, *Journal of Political Economy*, 86(6), 971-87.  
Stable URL: <http://www.jstor.org/stable/1840393>

Attanasio O.P., Banks J. *The Assessment: Household Saving – Issues in Theory and Policy*. *Oxford Review of Economic Policy*, 2001, Vol. 17, No.1, pp. 3-10.  
<http://82.179.249.32:2060/pqdlink?did=74682545&sid=1&Fmt=3&clientId=45975&RQT=309&VName=PQD>

Banks, J., Rohwedder, S. *Life-cycle saving patterns and pension arrangements in the U.K.* *Research in Economics* Volume 55, Issue 1, March 2001, Pages 83-10.  
[doi:10.1006/reec.2000.0243](https://doi.org/10.1006/reec.2000.0243)

Banks, J., Blundell, R., Tanner, S. *Is There a Retirement-Savings Puzzle?* (1998) *American Economic Review*, 88 (4), pp. 769-788. <http://links.jstor.org/sici?sici=0002-8282%28199809%2988%3A4%3C769%3AITARP%3E2.0.CO%3B2-X>

#### **Lecture 5. Psychological approach to studying savings behaviour of household**

Psychological factors in modeling savings behaviour of households. Psychological critique of economic approach (Tard).

Psychological economics of G.Katona. Contribution of psychological data to economic analysis. Subjective expectations as intermediates of objective economic factors.

Model of savings behaviour of G.Katona. Contractual, discretionary and residual savings. Index of consumer sentiments: methodology and trends.

#### **Obligatory readings**

Katona, G. *To Spend or to Save?* In Katona, G. *Psychological economics*. New York: Elsevier, 1975, p. 229-239.

Lauterbach A. *Psychological Assumptions of Economic Theory*, *American Journal of Economics and Sociology*, Vol. 10, No. 1 (Oct., 1950), pp. 27-38  
<http://82.179.249.32:2069/login.aspx?direct=true&db=bth&AN=15392028&site=ehost-live>

John C. Mowen, Clifford E. Young, Patriya Silpakit (1985), "A COMPARISON OF THE UNIVERSITY OF MICHIGAN AND CONFERENCE BOARD INDICES OF CONSUMER ECONOMIC ATTITUDES", in *Advances in Consumer Research* Volume 12, eds. Elizabeth C. Hirschman and Moris B. Holbrook, Provo, UT : Association for Consumer Research, Pages: 532-537. <http://www.acrwebsite.org/volumes/display.asp?id=6448>

#### **Additional readings**

Brown, S & Taylor, K (2006) *Financial Expectations, Consumption and Saving: A Microeconomic Analysis*. *Fiscal Studies*, 27 (3) pp.313-338.  
<http://82.179.249.32:2060/pqdlink?did=1134780961&sid=1&Fmt=4&clientId=45975&RQT=309&VName=PQD>

Warneryd, K. (1999) *The Psychology of Saving: A Study on Economic Psychology*. Cheltenham, UK: Edward Elgar Publishing Limited

Ибрагимова Д.Х., Николаенко С.А. Индекс потребительских настроений / Независимый институт социальной политики. М.: Поматур, 2005, с.6-29  
<http://www.socpol.ru/publications/book18.shtml>

### **Lecture 6. Behavioral economics of household savings**

Bounded rationality. Heuristics and biases. Prospect theory. Framing effect. Behavioral economics of savings, behavioral life-cycle model (Shefrin & Thaler). Empirical psychological experiments.

#### **Obligatory readings**

Sewell M. *Behavioural Finance*, University of Cambridge, February 2007 (revised April 2010) *An introduction to Behavioural Finance, including a review of the major works and a summary of important heuristics.*  
<http://www.behaviouralfinance.net/behavioural-finance.pdf>

Kahneman D., Tversky A. *Judgment under Uncertainty: Heuristics and Biases*, Science, September 1974, Vol. 185, pp. 1124-1131.

William G. Gale & J. Mark Iwry & Alicia H. Munnell & Richard H. Thaler, 2004. "Improving 401(k) Investment Performance," *Issues in Brief* ib26, Center for Retirement Research. <http://ideas.repec.org/p/crr/issbrf/ib26.html#download>

#### **Additional readings**

Thaler, R. H., Shefrin H.M. *An Economic theory of Self-Control*, *Journal of Political Economy*, 1981, 89(2), p. 392-406.  
<http://82.179.249.32:2069/login.aspx?direct=true&db=bth&AN=5057642&site=ehost-live>

Thaler, R. H., Benartzi Shlomo, *The Behavioral Economics of Retirement Savings Behavior*, Research Report

[http://www.aarp.org/research/financial/retirementsaving/2007\\_02\\_savings.html](http://www.aarp.org/research/financial/retirementsaving/2007_02_savings.html)

Thaler, Richard. *The behavioral life-cycle hypothesis* *Economic Inquiry* Volume: 26 Issue: 4 (1988) p. 609-643.

<http://82.179.249.32:2060/pqdlink?Ver=1&Exp=05-16-2015&FMT=7&DID=859165&RQT=309>

### **Lectures 7. Economic sociology of household financial behaviour**

Sociological approach to studying economic behaviour. Rationality as motivated and guided by shared beliefs, norms and institutions. Money. Saving motives. Elements of sociological approach in economic theory (Duesenberry, social and cultural effects on savings behavior in economic research).

Sociological studies of financial behaviour of households: the social meaning of money (Zelizer), research on the control and allocation of money within households, systems of money management in the families (J.Pahl, C.Vogler), the embeddedness of economic behaviour in social structure (Zelizer).

#### **Obligatory readings**

Roger Mason, *The Social Significance of Consumption: James Duesenberry's Contribution to Consumer Theory*, *Journal of Economic Issues*, Vol. 34, No. 3 (Sep., 2000), pp. 553-572 Stable URL: <http://www.jstor.org/stable/4227586>

Zelizer V.A. *Human values and the market: the case of life insurance and death in 19<sup>th</sup>-century America* // *American Journal of Sociology*, 1978, 84, pp. 591-610. Stable URL: <http://www.jstor.org/stable/2778256>

Vogler C. *Money in the household: some underlying issues of power*, *Sociological review*, Volume 46, Issue 4, 1998, pp. 687-713  
<http://82.179.249.32:2069/login.aspx?direct=true&db=sih&AN=1244353&lang=r&site=ehost-live>

Christopher D. Carroll, Byung-Kun Rhee and Changyong Rhee, *Are There Cultural Effects on Saving? Some Cross-Sectional Evidence* *The Quarterly Journal of Economics*, Vol. 109, No. 3 (Aug., 1994), pp. 685-699  
<http://82.179.249.32:2060/pqdweb?did=32265&sid=2&Fmt=2&clientId=45975&RQT=309&VName=PQD>

Keister Lisa A. *Financial Markets, Money, And Banking*, *Annual Review of Sociology*, 2002, Vol. 28: 39-61.  
<http://82.179.249.32:3301/doi/pdf/10.1146/annurev.anthro.35.081705.123127>

### **Additional readings**

Ken McCormick, *Duesenberry and Veblen: The Demonstration Effect Revisited* *Journal of Economic Issues*, Vol. 17, No. 4 (Dec., 1983), pp. 1125-1129  
<http://82.179.249.32:2056/stable/pdfplus/4225388.pdf>

Choudhury, S. *Racial and ethnic differences in wealth and asset choices* (2003) *Social Security Bulletin*, 64 (4), pp. 1-15.  
<http://www.ssa.gov/policy/docs/ssb/v64n4/v64n4p1.pdf>

Devaney, S.A., Chien, Y. *Children's Education as the Most Important Savings Goal* (2002) *Journal of Family and Consumer Sciences*, 94 (1), pp. 64-70.

Zelizer, Viviana A. *The Purchase of Intimacy*. *Law & Social Inquiry*, Summer 2000, Vol. 25 Issue 3, p. 817-848. Stable URL: <http://www.jstor.org/stable/829137>

Зелизер В. *Создание множественных денег* (перевод М.С. Добряковой), *Электронный журнал Экономическая социология* Том 3, № 4, 2002, с. 58-69.  
[www.ecsoc.msses.ru](http://www.ecsoc.msses.ru)

## **Lecture 8. Financial strategies of households**

The concepts of 'behaviour', 'action', 'strategy'. The problems in defining and operationalising the concept of 'strategy'. Typologies of financial strategies of households in Russia: evidence from the survey research. Marketing segmentation studies.

### **Obligatory readings**

Anderson, M., Bechhofer, F., Kendrick, S. (1994) *Individual and Household Strategies in M. Anderson, F. Bechhofer, J. Gershuny (Editors) The Social and Political Economy of the Household*, Oxford: Oxford University Press.

McKechnie, S. (1992), *Consumer Buying Behaviour in Financial Services: An Overview*, *International Journal of Bank Marketing*, Vol. 10 No. 5, pp. 4-12.  
<http://82.179.249.32:2060/pqdweb?did=1120782&sid=2&Fmt=3&clientId=45975&RQT=309&VName=PQD>

### **Additional readings**

Gregory P, Manouchehr M. & Wolfram S. *Do Russians Really Save That Much: Alternate Estimates from the Russian Longitudinal Monitoring Survey*, *The Review of Economics and Statistics*, November 1999, 81 (4): 694-703.  
<http://82.179.249.32:2060/pqdweb?did=47775748&sid=1&Fmt=2&clientId=45975&RQT=309&VName=PQD>



Crow, G. (1989) 'The Use of the Concept of 'Strategy' in Recent Sociological Literature', *Sociology*, Vol.23, No.1: 1-24.  
<http://82.179.249.32:2069/login.aspx?direct=true&db=bth&AN=14943844&lang=ru&site=ehost-live>

### **Lectures 9-10. Methodological issues in empirical research on household financial behaviour**

Problems of overestimation of savings in official statistics on incomes and savings in Russia.

Survey questions on incomes, wealth, consumption, savings in consumer research.

Problems of wording. How to avoid sensitive questions. National surveys of incomes and expenditures.

Russian Longitudinal Monitoring Survey – questionnaire and data set. Research questions which may be answered by using this data set.

#### **Obligatory readings**

Banks, J A & Johnson, P (1998) *How Reliable is the Family Expenditure Survey? Trends in Incomes and Expenditures over time*, Institute for Fiscal Studies, London  
<http://www.ifs.org.uk/publications/1890>

Roger Thomas - Income - Commentary  
<http://survey.net.ac.uk/sqb/qb/topics/income/incomeintro.htm>

Николаенко С.А. Личные сбережения населения // Экономический журнал ВШЭ, том 2, №4, с. 500-507. [http://library.hse.ru/e-resources/HSE\\_economic\\_journal/articles/02\\_04\\_04.pdf](http://library.hse.ru/e-resources/HSE_economic_journal/articles/02_04_04.pdf)

#### **Additional readings**

David Comerford, Liam Delaney, Colm Harmon, *Experimental Tests of Survey Responses to Expenditure Questions*, Volume 30 Issue 3-4 Special Issue: Special Issue on Measuring Consumption and Saving, 2009, p 419-433  
<http://www3.interscience.wiley.com/cgi-bin/fulltext/123210105/PDFSTART>

Essig L., Winter J.K. *Item Non-Response to Financial Questions in Household Surveys: An Experimental Study of Interviewer and Mode Effects*, Volume 30 Issue 3-4 Special Issue: Special Issue on Measuring Consumption and Saving, 2009, pp. 367-390 [http://www.mea.uni-mannheim.de/mea\\_neu/pages/files/nopage\\_pubs/tcc45wgnehf4qbkg\\_dp39.pdf](http://www.mea.uni-mannheim.de/mea_neu/pages/files/nopage_pubs/tcc45wgnehf4qbkg_dp39.pdf)

Banks, J, Blundell, R & Smith, J P (2003) *Understanding Differences in Household Financial Wealth Between the United States and Great Britain*. *Journal of Human Resources*, 38(2), pp.241-279.  
<http://82.179.249.32:2069/login.aspx?direct=true&db=bth&AN=9519972&lang=ru&site=ehost-live>

Schrapler, J (2006) *Explaining Income Nonresponse: A Case Study by Means of the British Household Panel Study (BHPS)*. *Quality and Quantity*, 40 (6) pp.1013-1036. DOI 10.1007/s11135-005-5429-z

Alessie R., Kapteyn A. *New Data for Understanding Saving*. *Oxford Review of Economic Policy*, 2001, Vol. 17, No.1, pp. 55-69.  
<http://82.179.249.32:2460/cgi/reprint/17/1/55?maxtoshow=&hits=10&RESULTFO>



[RMAТ=&fulltext=New+Data+for+Understanding+Saving&searchid=1&FIRSTIN DEX=0&resourcetype=HWCIT](#)

Warneryd K-E. *Survey Studies of Saving, Survey Questions, What Do People Mean by Saving, Empirical Measures of Household Wealth and Saving. In The psychology of saving. A study on economic psychology.* Cheltenham, UK: Edward Elgar, 1999, pp.63-71.

Организационные и методологические положения по обследованию домашних хозяйств, в *Методологические положения по статистике, Вып.1,* Госкомстат, М., 1996, сс. 110-125. Доступ через Университетскую базу данных [www.cir.ru](http://www.cir.ru)

### **Lecture 11-12. Research on financial behaviour of Russian households**

The results of empirical research on savings behaviour of Russian households. Changes in the financial behaviour of households in the crisis times. Financial literacy studies.

#### **Obligatory readings**

Gregory, P., Mokhtari, M., Schrettl, W., (1999) 'Do Russians Really Save That Much - Alternate Estimates from the Russian Longitudinal Monitoring Survey', *The Review of Economics and Statistics*, 81 (4), 694-703.

<http://82.179.249.32:2060/pqdweb?did=47775748&sid=1&Fmt=2&clientId=45975&RQT=309&VName=PQD>

Skoufias, E. (2003) 'Consumption Smoothing in Russia: Evidence from the RLMS,' *Economics of Transition*, Vol.11 (1): 67-91. DOI: 10.1111/1468-0351.00140

#### **Additional readings**

Smith, S (2006) *Persistency of pension contributions in the UK: evidence from the British Household Panel Survey.* *Journal of Pension Economics and Finance*, 5, pp.257-274. doi: 10.1017/S1474747206002496

Attanasio O P, Rohwedder S (2003) *Pension wealth and household saving: Evidence from pension reforms in the United Kingdom.* *American Economic review*, 93 (5) pp.1499-1521.

<http://82.179.249.32:3471/doi/pdfplus/10.1257/000282803322655419>

Foley M., Pyle W.(2005) *Household Savings in Russia during the Transition,* Middlebury College Economic Discussion Paper No.05-22, Middlebury, Vermont.

Denizer, C, Wolf, H.C. (1998) 'Household Savings in Transition Economies', NBER working paper 6457, March, 3-12 . [http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2000/04/24/000094946\\_0040605325052/Rendered/PDF/multi\\_page.pdf](http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2000/04/24/000094946_0040605325052/Rendered/PDF/multi_page.pdf)

Skoufias, E. (2004) 'Consumption Smoothing During the Economic Transition in Bulgaria', *Journal of Comparative Economics* 32: 328-347.  
[doi:10.1016/j.jce.2004.03.001](http://doi:10.1016/j.jce.2004.03.001)

### **Lecture 13. Research on investment behaviour of households. Financial frauds.**

Savings and investments. The relationship between the two on the macro level. Household Lifecycle Portfolio Allocations.

Economic explanations of financial frauds: risk and uncertainty, asymmetry of information.

Psychological explanation of financial frauds: investor overconfidence under uncertainty, framing effects, recency effects, and halo effects.

Trust to financial institutions and collective representations. Sociological approach to the analysis of investors: power and culture.

Financial frauds in Russia in the mid of the 1990s. Participant observations next to MMM shares sell points. Ponzi scheme: principles and stages. Financial literacy of investors.

### ***Obligatory readings***

*James Banks & Richard Blundell & James P. Smith, Wealth Portfolios in the UK and the US, 2002, NBER Working Papers 9128, National Bureau of Economic Research, Inc. <http://www.nber.org/papers/w9128.pdf>*

*Pressman S. On financial frauds and their causes: investor overconfidence // American J. of economics and sociology, Vol.57, No.4 (October 1998), 405-421. [http://findarticles.com/p/articles/mi\\_m0254/is\\_4\\_57/ai\\_53449305](http://findarticles.com/p/articles/mi_m0254/is_4_57/ai_53449305)*

### ***Additional readings***

*John Y. Campbell, 2006. Household Finance, NBER Working Papers 12149, National Bureau of Economic Research, Inc. <http://ideas.repec.org/p/nbr/nberwo/12149.html>*

*Charles P. Kindleberger and Robert Aliber (2005), Manias, Panics, and Crashes: A History of Financial Crises.*

## ***Lecture 14. Marketing research for banks, investment funds and insurance companies***

Specificity of research problems in marketing research for banks, investment funds and insurance companies . Marketing research methods. Segmentation studies. Advertising research. Brand name testing. Customer satisfaction research. Price elasticity research.

### ***Obligatory readings***

*Green, P.E., Krieger, A.M. Recent contributions to optimal product positioning and buyer segmentation, European Journal of Operational Research, Volume 41, Issue 2, 25 July 1989, Pages 127-141 [doi:10.1016/0377-2217\(89\)90375-5](https://doi.org/10.1016/0377-2217(89)90375-5)*

*Eugene W. Anderson, Claes Fornell and Roland T. Rust Customer Satisfaction, Productivity, and Profitability: Differences between Goods and Services Marketing Science, Vol. 16, No. 2 (1997), pp. 129-145 <http://bear.warrington.ufl.edu/centers/mks/articles/Customersatisfaction.pdf>*

*Grace, D., O'Cass, A. Service branding: Consumer verdicts on service brands, Journal of Retailing and Consumer Services Volume 12, Issue 2, March 2005, Pages 125-139 [doi:10.1016/j.jretconser.2004.05.002](https://doi.org/10.1016/j.jretconser.2004.05.002)*