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Energy Efficiency and Profitability in the Service Sector: A Comparative Study

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Abstract

This paper focuses on the specific impact of energy efficiency on the profitability of the service sector, with particular emphasis on the trade industry. The study combines theoretical and methodological insights with a comparative analysis using original empirical data from the European Union and Serbia. To provide a comprehensive analysis, data from surveys conducted in the United States, Canada, and Russia are also incorporated. The results of the empirical research indicate that energy efficiency in Serbia's service sector is significantly lower than in the European Union and other developed market economies. This disparity highlights the urgent need for targeted measures to enhance energy efficiency within Serbia's service sector. The paper proposes several key strategies to address this issue, including the adoption of modern energy technologies, increasing the share of renewable energy in total final energy consumption, and reducing energy consumption across the entire supply chain. Additionally, the paper emphasizes the importance of reducing carbon dioxide emissions associated with energy consumption, constructing energy-efficient office buildings and retail facilities, and improving the energy efficiency of existing structures. By implementing these measures, the paper argues that Serbia can significantly improve the profitability of its service sector. Enhanced energy efficiency not only reduces operational costs but also aligns with global sustainability goals, offering long-term economic and environmental benefits. The findings suggest that adopting a more energy-efficient approach in the service sector is essential for Serbia to remain competitive and to promote sustainable economic growth. This paper underscores the critical importance of energy efficiency as a driver of profitability in the service sector, particularly in countries like Serbia where current levels of efficiency lag behind those of more developed economies. The proposed measures provide a roadmap for achieving these improvements, ultimately contributing to a more sustainable and profitable service sector.

Keywords: Energy Efficiency, Service Sector, Profitability, Sustainable Growth

JEL Codes: Q43, L80, O44

1. INTRODUCTION

In recent years, significant attention has been focused on the impact of energy efficiency on the profitability of companies across all sectors, including the service industry. This increasing awareness is quite understandable, given the global urgency surrounding energy savings, the reduction of water consumption, the decrease in carbon dioxide emissions related to energy use, and the challenge of waste treatment. These issues have emerged as major concerns on a global scale due to their direct impact on both the environment and economic sustainability. As environmental pressures mount, businesses are recognizing the financial and operational benefits that come from improving energy efficiency. Reducing energy consumption not only lowers operational costs but also helps companies meet regulatory requirements and respond to growing consumer demand for sustainable practices. Furthermore, enhanced energy efficiency contributes to broader goals such as reducing greenhouse gas emissions, a crucial step in addressing climate change. Considerable attention is also being devoted to the improvement of environmental protection within the framework of sustainable development. In this context, reducing final energy consumption—the total energy used by end consumers—is seen as a key strategy for both improving profitability and achieving environmental objectives. Companies that focus on energy-efficient technologies, renewable energy sources, and sustainable resource management are better positioned to meet the demands of a rapidly evolving global economy while also fulfilling their environmental responsibilities.

The connection between energy efficiency and profitability demonstrates how sustainable business practices can drive financial success. Companies that invest in energy-efficient systems and processes not only reduce their environmental footprint but also enhance their long-term competitiveness in an increasingly eco-conscious market. From the standpoint of sustainable development, it is crucial to emphasize the specific impact of energy efficiency on the performance of the service sector, where energy consumption plays a vital role in operational costs and environmental sustainability. This theoretical and methodological research draws on original empirical data from selected countries within the European Union, as well as from Serbia, the United States, Canada, and Russia, to provide a comprehensive understanding of the relationship between energy efficiency and business performance in the service industry.

In particular, the trade sector, and specifically the energy efficiency practices of global food retailers, serves as a focal point for this analysis. Large retailers, such as Tesco, play a significant role in shaping energy consumption patterns within the service sector. These companies operate extensive networks of stores, distribution centers, and supply chains,

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which collectively account for substantial energy use. By implementing energy-efficient technologies and practices—such as optimized refrigeration systems, energy-efficient lighting, and renewable energy sources—these retailers can significantly reduce their environmental impact while also cutting operational costs. In examining the performance of companies like Tesco, the research highlights how energy efficiency measures not only reduce energy consumption but also contribute to increased profitability by lowering utility costs and improving operational efficiency. Additionally, retailers that adopt sustainable energy practices can enhance their brand reputation, attract eco-conscious consumers, and meet evolving regulatory requirements related to sustainability. The findings from this research underscore the importance of integrating energy efficiency into the core strategies of businesses in the service sector, particularly in trade. As energy costs and environmental regulations continue to rise, companies that prioritize energy efficiency will be better positioned to compete in the global marketplace while contributing to sustainable development goals. This makes energy efficiency a key driver of both environmental responsibility and economic success in the service industry.
To increase customer satisfaction, enhance profits, and align more closely with the principles of sustainable development, global food retailers have developed targeted strategies aimed at improving energy efficiency management. These strategies focus on key areas such as reducing water consumption, lowering carbon dioxide emissions, and optimizing food waste treatment. By addressing these environmental challenges, retailers not only contribute to sustainability but also improve their operational efficiency, which translates into cost savings and better customer engagement.
In recent years, a significant shift has occurred in how companies report on these efforts, with the introduction of sustainable reporting becoming a common business practice. This type of reporting, which includes detailed disclosures on environmental, social, and governance (ESG) performance, is increasingly integrated into the annual reporting of global food retailers. Companies like Wal-Mart have adopted sustainable reporting as part of their corporate responsibility strategies, reflecting their commitment to transparency and sustainability. Sustainable reporting goes beyond traditional financial metrics to provide a more comprehensive view of a company's performance. It includes data on energy efficiency, carbon footprint, water use, and waste management, offering insights into how well the company is managing its environmental impact. As public awareness and interest in sustainability grow, these reports have become an essential tool for engaging with stakeholders, including consumers, investors, and regulatory bodies. By incorporating sustainable reporting into their annual disclosures, companies not only demonstrate accountability but also build trust and brand loyalty.
This integrated approach to reporting aligns with the broader goal of achieving a fully integrated accounting information system that reflects both financial and non-financial performance. For global food retailers, sustainable reporting has become a key component of their business strategies, ensuring that they remain competitive while contributing to the sustainable development agenda. This practice also helps retailers respond to the growing demand from consumers and investors for companies to be socially and environmentally responsible, further solidifying their market position and long-term success. To increase customer satisfaction, enhance profits, and align more closely with the principles of sustainable development, global food retailers have developed targeted strategies aimed at improving energy efficiency management. These strategies focus on key areas such as reducing water consumption, lowering carbon dioxide emissions, and optimizing food waste treatment. By addressing these environmental challenges, retailers not only contribute to sustainability but also improve their operational efficiency, which translates into cost savings and better customer engagement.
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2. METHODOLOGY

In recent years, the service sector has been directing significant attention toward improving energy efficiency management within the framework of sustainable development (Lukic, 2014d; Christina et al., 2015). This focus includes efforts to reduce carbon dioxide emissions linked to energy consumption. As businesses face increasing pressure to operate sustainably, energy management is being recognized as a crucial area of responsibility across all enterprises, including those in the service industry. Companies are establishing dedicated energy management departments to track, optimize,

and report on energy use, making energy efficiency a key driver of both cost savings and environmental stewardship. Within this context, "Green energy"—energy generated from renewable sources—has emerged as a pivotal factor in enhancing energy efficiency in the service sector. The adoption of renewable energy sources, such as solar, wind, and hydroelectric power, plays an essential role in reducing reliance on fossil fuels and lowering carbon emissions. According to AT Kearney (2012), the use of green energy significantly boosts the service sector's ability to meet energy efficiency goals while aligning with broader sustainability targets. This transition not only benefits the environment but also helps service companies improve their operational performance, reduce energy costs, and enhance their corporate reputation by meeting the growing demand for environmentally responsible business practices. As the service sector continues to grow, the integration of energy-efficient technologies and the adoption of green energy are becoming fundamental to achieving long-term sustainability. This shift is being driven by the realization that sustainable energy management is not just an environmental imperative but also a business necessity, positioning companies for future competitiveness in a market that increasingly values sustainability. The commercial sector plays a significant role in total final energy consumption, as illustrated by data from California in 2011, where the commercial sector accounted for 42% of total energy use. In contrast, agriculture represented 7%, residential buildings 33%, street lighting 1%, industry 14%, and mining and construction 3% (Papamichael et al., 2015). This high level of energy consumption within the commercial sector also translates into a substantial contribution to carbon dioxide emissions, which have a major impact on the greenhouse effect. For instance, in the United Kingdom, the commercial sector was responsible for 10% of total greenhouse gas emissions in 2013 (Westminster Sustainable Business Forum and Carbon Connect, 2013).

In recent years, the European Union has devoted significant attention to the development and implementation of sustainable development principles, with a particular focus on energy efficiency. Numerous studies have examined the importance of improving energy efficiency as part of broader efforts to promote sustainable growth. The EU's goal for 2020 was to achieve a 20% reduction in greenhouse gas emissions compared to 1990 levels, increase the share of renewable energy consumption to 20%, and improve energy efficiency by 20% (Eurostat, 2015). To meet these ambitious targets, the European Union has implemented a global strategy and policy aimed at the efficient use of energy resources. This strategy includes promoting energy-efficient technologies, encouraging the transition to renewable energy sources, and ensuring that businesses and industries across all sectors are actively engaged in efforts to reduce their carbon footprint. By prioritizing energy efficiency and sustainability, the EU aims to foster long-term economic growth that is both environmentally responsible and aligned with global climate goals. The commercial sector’s participation in these efforts is crucial, given its significant energy consumption and carbon emissions. By improving energy efficiency in the commercial sector, businesses can not only reduce their environmental impact but also achieve cost savings and enhance their competitiveness in a market that increasingly values sustainability.

3. RESULTS AND DISCUSSION

Table 1: energy consumption in the European Union

Sector	1990	2013
Industry	34,1	25,1
Transportation	26,3	31,6
Residential buildings	25,4	26,8
Agriculture/Forestry	2,9	2,2
Services	10,1	13,8
Other	1,2	0,5

The table indicates changes in energy consumption patterns across various sectors in the European Union between 1990 and 2013. In the industrial sector, energy consumption saw a substantial decrease from 34.1% to 25.1%, suggesting a shift away from energy-intensive manufacturing, possibly due to increased efficiency, deindustrialization, or outsourcing. Transportation, on the other hand, experienced a significant rise, growing from 26.3% to 31.6%, which could be attributed to expanded mobility demands, more extensive transport networks, or an increase in vehicle usage. Residential buildings showed a modest increase in energy consumption, from 25.4% to 26.8%, potentially reflecting better living standards, population growth, or the proliferation of household appliances.

Agriculture and forestry sectors witnessed a reduction in energy consumption, dropping from 2.9% to 2.2%, likely due to technological advancements, improved energy practices, or a decline in the sector's relative significance. The service sector saw an increase from 10.1% to 13.8%, indicating a growing demand for energy in service-based economies, possibly linked to the expansion of service industries and more energy-consuming commercial activities. The "Other" category, which decreased from 1.2% to 0.5%, may reflect better categorization of energy use data or a decline in energy consumption across unspecified sectors. Overall, these changes suggest a transition in energy usage patterns in the EU, moving away from traditional industrial applications and towards transportation and service sectors, aligning with broader economic transformations. According to the data presented, service sector participates with over 10% in the European Union in the structure of final energy consumption. It can be significantly reduced by application of new energy

technologies and the use of solar energy. This will certainly have a positive impact on increasing the profitability of the service sector in the European Union.

Table 2: Indicators of energy efficiency and carbon dioxide emissions in European Union

	Energy intensity	Electrical intensity	CO_2 intensity
European Union	0,016	89,5	0,018
Germany	0,018	77,4	0,026
France	0,016	98,9	0,017
United Kingdom	0,012	65,4	0,014
Croatia	0,018	133	0,013
Slovenia	0,015	114	0,011
Serbia	0,020	126	n.a

The table presents indicators of energy efficiency and carbon dioxide (CO2) emissions in the European Union and selected countries, measured in terms of added value at purchasing power parity. Energy intensity, electrical intensity, and CO2 intensity are used to assess efficiency and environmental impact. For the European Union, energy intensity is 0.016 koe per $2005ppp, electrical intensity is 89.5 kWh/k$2005ppp, and CO2 intensity is 0.018 kCO2/2005ppp. Germany's energy intensity is slightly higher at 0.018, with a lower electrical intensity of 77.4 and higher CO2 intensity of 0.026, indicating a higher reliance on CO2-intensive energy sources. France shares the EU average energy intensity of 0.016 but has a higher electrical intensity of 98.9 and a lower CO2 intensity of 0.017, suggesting better carbon efficiency despite higher electricity consumption. The United Kingdom exhibits the lowest energy intensity at 0.012 and CO2 intensity at 0.014, with an electrical intensity of 65.4, indicating strong energy efficiency and lower emissions relative to economic output. Croatia's energy intensity is on par with Germany at 0.018, but it has the highest electrical intensity at 133, paired with a relatively low CO2 intensity of 0.013. Slovenia's indicators show energy intensity at 0.015, electrical intensity at 114, and CO2 intensity at 0.011, reflecting good CO2 efficiency compared to electricity usage. Serbia, with an energy intensity of 0.020 and electrical intensity of 126, lacks CO2 intensity data, but the high energy and electrical intensities imply less efficient energy use. The data illustrates variability in energy and CO2 efficiency among the countries, with the United Kingdom standing out for its low energy and CO2 intensities, while Germany shows higher CO2 intensity despite its moderate electrical intensity.

Table 3: Firms Industry Income Statement (P&L)

	% of sales
Net sales	100%
Merchandise costs	74,4
Gross margin	25,6%
Operating, G&A costs	20,2%
Utility costs	1,3%
Adj. operating profit	2,7%
Net profit	0,4%
CapEx	2,2%

The income statement provides a detailed view of the firm's financial performance within its industry, illustrating how revenue is allocated across various expenses. Net sales are set at 100%, serving as the benchmark against which all other cost categories are measured. Merchandise costs, which account for 74.4% of net sales, represent the primary expense for the firm. This high percentage indicates that a substantial portion of the revenue is spent on acquiring or manufacturing the goods sold, which may be characteristic of industries with significant cost-of-goods-sold relative to sales, such as retail or manufacturing. The remaining 25.6% constitutes the gross margin, which represents the firm's ability to generate profit after covering direct production or purchasing costs. A gross margin of this level suggests there is some room to cover operating expenses, but not a large cushion, indicating a need for efficient cost management. Operating, general, and administrative (G&A) costs take up 20.2% of net sales, demonstrating that a significant portion of the gross margin is used for operating expenses, which include salaries, office supplies, rent, and other general business overheads. This relatively high percentage indicates that the firm needs to carefully manage these expenses to avoid eroding profitability. When G&A costs consume most of the gross margin, it leaves little room for other operational costs or profit generation. Utility costs, accounting for 1.3% of net sales, represent a smaller expense but still contribute to the firm's overall operating costs. These costs can include energy, water, and other utilities necessary for running the business, which might fluctuate depending on the industry.

The adjusted operating profit is 2.7% of net sales, suggesting that after covering merchandise, operating, G&A, and utility

costs, the firm retains a slim margin. This figure indicates modest profitability, implying that the business operates on tight margins. To improve profitability, the firm may need to optimize its cost structure, increase sales volume, or enhance pricing strategies. The net profit is further reduced to 0.4% of net sales, reflecting very narrow bottom-line profitability after accounting for all expenses, taxes, and interest. This suggests the firm faces challenges in translating sales into significant profit, which could be due to competitive pricing pressures, high fixed costs, or other industry-specific factors. Such low net profitability may also indicate vulnerability to economic fluctuations or cost increases. Capital expenditures (CapEx), which are 2.2% of net sales, reflect the firm's ongoing investment in long-term assets such as machinery, equipment, or infrastructure. These investments are critical for sustaining future growth, maintaining operational capabilities, or expanding capacity. However, given the already tight profit margins, high CapEx could strain cash flow, necessitating careful financial planning to avoid liquidity issues.

The income statement portrays a firm that operates with high merchandise costs and significant overhead, resulting in narrow profit margins. The financial health of the company would benefit from strategies aimed at increasing gross margin (e.g., through cost reductions or higher pricing), controlling G&A expenses, and ensuring that capital investments lead to future revenue growth or efficiency improvements. The tight net profit margin underscores the need for continuous efficiency optimization to enhance profitability.

4. CONCLUSIONS

Energy efficiency has recently emerged as a key driver of profitability across all sectors of the economy, including the service sector. As businesses increasingly recognize the financial and environmental benefits of reducing energy consumption, various theoretical, methodological, and empirical approaches are being explored to improve energy efficiency. The potential for enhancing energy efficiency is significant in every sector, and these improvements can directly contribute to better profitability and operational sustainability. In this study, a comparison of the service sector in the European Union and Serbia revealed a substantial gap in energy efficiency. Energy efficiency is notably higher in the EU, where considerable efforts have been made to integrate sustainable development practices, while Serbia still faces challenges in this area. Therefore, it is crucial for Serbia to implement a range of sustainable development measures to improve energy efficiency, particularly in the service sector, including trade. Key measures that need to be taken include the adoption of modern energy-efficient technologies and the increased use of renewable energy sources. Additionally, improving the energy efficiency of office buildings and stores can lead to significant reductions in energy consumption. Reducing carbon dioxide emissions linked to energy use is another critical goal that aligns with global climate initiatives. To achieve this, it is essential to define and execute comprehensive power management strategies that prioritize efficient energy use and align with the principles of a "green economy. Fostering a business environment where sustainability is a core element of decision-making will not only improve Serbia's energy efficiency but also bolster its economic competitiveness.

By adopting energy-efficient strategies, Serbia’s service sector can move towards greater energy efficiency, contributing both to economic growth and environmental responsibility in alignment with global sustainability goals. In the food trade sector, energy costs represent around 1% of sales. However, these costs vary significantly from country to country. According to the analyzed empirical data, energy costs are notably higher in Serbia's food trade sector compared to countries with more developed market economies. This discrepancy underscores the potential for cost reduction and profitability improvement by focusing on energy efficiency. Reducing energy costs in Serbia’s food trade sector can be achieved through several key measures. First, the replacement of existing heating, refrigeration, and cooling systems with newer, more energy-efficient alternatives can significantly lower energy consumption. Additionally, improving insulation in both existing and newly constructed office buildings and food stores can lead to further energy savings. Proper insulation ensures better temperature regulation, reducing the need for excess heating or cooling and thereby lowering energy bills. Incorporating the principles of sustainable development into Serbia’s trade sector will ultimately result in increased energy efficiency. As businesses integrate these practices, they will not only benefit from lower operational costs but also contribute to a greener, more sustainable economy, positioning Serbia as a competitive player in both regional and global markets. Given the significant impact of energy costs on profitability in the retail food sector, it is crucial to implement appropriate measures aimed at reducing these costs. Lowering energy expenses not only boosts profit margins but also aligns with broader goals of sustainability and environmental responsibility. These measures can take various forms and address different aspects of energy consumption. For instance, sustainable strategies to reduce energy costs in retail food can include the implementation of energy-efficient lighting, cooling, and heating systems, all of which play a significant role in the overall energy usage of retail stores. Efficient lighting solutions, such as LED systems, can drastically cut energy consumption compared to traditional lighting. Similarly, advanced cooling and heating systems optimize temperature regulation while using less energy, making them an essential investment for reducing operational costs.

In addition, energy management systems that monitor and optimize energy use in real time are becoming increasingly vital. These systems allow retailers to track consumption patterns, identify inefficiencies, and implement corrective actions quickly. Furthermore, a key initiative for reducing energy costs involves increasing the use of renewable energy sources, such as solar or wind power, which can significantly offset dependency on traditional energy grids and fossil fuels. Another critical aspect is the adoption of new energy-efficient technologies in the food retail sector. Retailers should focus on integrating these technologies into their operations, whether by upgrading refrigeration units or introducing

automated systems that reduce energy waste. Alongside this, there is a strong case for constructing energy-efficient office buildings and stores, which are designed to minimize energy usage through better insulation, natural lighting, and smart building technologies. Continual improvements to existing infrastructure are also essential. Regularly updating and optimizing the energy efficiency of current buildings and equipment ensures that businesses remain competitive and aligned with sustainable development goals. By implementing these measures, the retail food sector can achieve significant energy cost reductions, thereby increasing profitability while contributing to a more sustainable future.

REFERENCES

Accenture (2012). *Sustainable Energy for All: Opportunities for the Retail Industry.* Accenture.

Agency for Business Registers (2015). Annual financial statements bulletin. Belgrade: Agency for Business Registers. (Bilten godišnjih finansijskih izveštaja, Agencija za privredne registre – In Serbian).

Allcott, H., & Sweeney, R. (2014). Can Retailers Inform Consumers about Energy Costs? Evidence from a Field Experiment. Working paper, New York University.

AT Kearney (2012). *The Profitable Shift to Green Energy.* AT Kearney.

Australian Government (2014). *Relative Costs of Doing Business in Australia: Retail Trade.* Productivity Commission Research Report.

Blake, N., Holberton, R., & Pearce, R. (2015). *Sustainable Shopping Centres: Energy, Performance and Value.* London: BCSC (British Council of Shopping Centres).

Christina, S., Waterson, P., Dainty, A., & Daniels, K. (2015). A socio-technical approach to improving retail energy efficiency behaviours. *Applied Ergonomics,* 47, 324-335.

ClimateWorks Australia (2011). *Low Carbon Growth Plan for Australia. Retail Sector Summary Report.*

Dangana, Z., Pan, W., & Goodhew, S. (2012). Delivering sustainable buildings in retail construction. In Smith, S.D. (ed.). *Proceedings of the 28th Annual ARCOM Conference.*

Dong, B., Gorbounov, M., Yuan, S., Wu, T., Srivastav, A., Bailey, T., & O'Neill, Z. (2013). Integrated energy performance modelling for a retail store building. *Building Simulation,* 6(3), 283-295.

Economic Commission for Europe (2014). *Initial Review of Energy Efficiency in the ECE Region.*

Energy Community (2014). *Annual Implementation Report 2013/2014.* Energy Community Secretariat.

ENERGY STAR. *Retail: An Overview of Energy Use and Energy Efficiency Opportunities.*

Eurostat (2015). *Sustainable Development in the European Union – 2015 Monitoring Report of the EU Sustainable Development Strategy.*

Gvozdenac, D.D., & Simi, T.S. (2012). About the Serbia Energy Efficiency Problems. *Thermal Science,* 16(1), S1-S15.

Jamieson, M., & Renaud, A. (2014). *A $3 Billion Opportunity: Energy Management in Retail Operations.* Schneider Electric.

LG Electronics U.S.A., Inc. (2011). *An Innovative, Sustainable Retail Environment.* Englewood Cliffs, NJ.

Liu, G., Liu, B., Zhang, J., Wang, W., Athalye, R.A., Moser, D., Crowe, E., Bengtson, N., Effinger, M., Webster, L., & Hatten, M. (2011). *Advanced Energy Retrofit Guide: Retail Buildings.* Pacific Northwest National Laboratory.

Lukic, R. (2015a). The Analysis of Profit per Employee in the Trade of Serbia. *Economia. Seria Management,* 18(1), 1-16.

Lukic, R. (2014b). The Profitability of Trade in Serbia. *Asian Journal of Management Research,* 4(3), 485-500.

Lukic, R. (2016). Energy Efficiency in the Food Retail. *Business Excellence and Management,* 6(1), 16-35.

Määttänen, E., Kyrö, R., & Aaltonen, A. (2014). Remote Energy Management Benefits in Retailing Building Portfolios. *Journal of Facilities Management,* 12(1), 56-71.

Martos-Galvey, J.-L., Styles, D., & Schoenberg, H. (2013). Identified Best Environmental Management Practices to Improve the Energy Performance of the Retail Trade Sector in Europe. *Energy Policy,* 63, 982-994.

PEPCO. *PEPCO C&I Energy Savings Program Overview.*

Russian Statistical Yearbook (2014). *Российский статистический ежегодник – 2014 г.*

Schönberger, H., Galvez Martos, J.L., & Styles, D. (2013). *Best Environmental Management Practice in the Retail Trade Sector.* European Commission.

Spyrou, M.S., Shanks, K., Cook, M.J., Pitcher, J., & Lee, R. (2014). An Empirical Study of Electricity and Gas Demand Drivers in Large Food Retail Buildings. *Energy and Buildings,* 68, 172-182.

Tassou, S.A., Ge, Y., Hadawey, A., & Marriott, D. (2011). Energy Consumption and Conservation in Food Retailing. *Applied Thermal Engineering,* 31, 147-156.

Tassou, S.T., Kolokotroni, M., & Gowreesunker, B. (2014). Energy Demand and Reduction Opportunities in the UK Food Chain. *Energy,* 167(3), 162-170.

Tesco (2015). *Annual Report and Financial Statements 2015.*

U.S. Small Business Administration (SBA). *Energy Efficiency for Retail Stores.*

Vojteski Kljenak, D., Lukic, D., & Jovancevic, D. (2015). Labor Costs Analysis in the Trade Market of Serbia. *Management Research and Practice,* 7(3), 59-79.

Wang, W. (2014). Comparing the Energy Consumption of Logistics Chains in Traditional Retailing and E-commerce for Popular Products in the Context of China. *The ANU Undergraduate Research Journal,* 5, 243-267.

Westminster Sustainable Business Forum, Carbon Connect (2013). *Building Efficiency: Reducing Energy Demand in the Commercial Sector*.

Yokoo, N., Oka, T., Yokoyama, K., Sawachi, T., & Yamamoto, M. (2015). Comparison of Embodied Energy/CO2 of Office Buildings in China and Japan. *Journal of Civil Engineering and Architecture*, 9, 300-307.