

The Value for Money for Transport Infrastructure Projects and Its Marketing Components – Conceptual Thoughts and Reflections

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Abstract

Purpose: There is a need to insure effectiveness in public transport infrastructure capital outlays. The Value for Money (VfM) concept has been embedded in political economy and management without a clear methodological framework and accepted definitions. This paper addresses methodological boundaries and opportunities for implementation of the VfM concept with special consideration to its marketing components.

Methodology: A literature review and assessment of practical experience has been completed. An evaluation of the VfM logic is also provided. The VfM functions and application as an analytical, management and marketing tool are analyzed.

Findings: The VfM project assessment methodology can be used to insure the best possible input costs and impacts ratio. The maximization of VfM is possible if this approach is correctly and fully implemented. Additional methodological and conceptual work is needed to ensure its full applicability. This concerns also marketing elements of the VfM concept.

Originality: The paper presents a complex approach to VfM as an analytical and management procedure. It contributes to research advancement in this insufficiently explored area.

Keywords: value for money, infrastructure, government, 3E approach, marketing

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| Background

A well-functioning transport infrastructure provides one of the major foundations for the overall economic growth. Many countries and regions have recently experienced significant infrastructure shortcomings and realized the need for improvements². This has been reflected in the European Union (EU) and the United States federal government strategic documents. In the past, much of the infrastructure activities focused on funding and building infrastructure assets. This was done without developing long-term strategies and insuring the expertise and resources to manage and maintain built facilities, and providing systems capacities for their best utilization. During the recent period of financial crisis and constraints, infrastructure and education have become the easiest targets for budget cuts. These cuts are initiated by politicians, who do not think in terms of long-term economic wellness of their constituencies. This easy, but naïve budget balancing approach, has contributed to a global infrastructure crisis, and a slowdown of innovation in transport³. To combat this crisis, significant funds have to be spent⁴. There is a pressing need to increase the efficiency and success rates for these interventions⁵. Investors, donor agencies, and international finance institutions (IFI) have for a long time requested, stimulated, and sought the development of complex infrastructure assessment schemes to achieve more effective planning, selecting, and completing of infrastructure projects with focus on the best utilization of limited resources.

| Assessment of Transport Infrastructure Projects – Conceptual Issues

There are two essential approaches for public transport infrastructure decision making. The *conservative economic approach* assumes that all investment decisions should be made based exclusively on positive results of financial and/or economic assessment. If the investment does not pass the Cost-Benefit Analysis (CBA) test, it should not be built. The *society-directed approach* assumes consideration of other factors. There are many variations of this approach depending on the choice of: a) quantitative financial and economic elements; and b) other factors which governments wish to consider in a decision-making process. They may include political priorities, social preferences, military needs, and international relations reasons. The extreme solution involves

² In response to these difficulties some countries e.g. the United States, the United Kingdom, Germany have launched national and regional infrastructure modernization long-term programs, and established specialized task forces.

³ Innovation in transport and infrastructure is a multidisciplinary phenomenon which requires significant public support and institutional structures. Limitations in transport infrastructure funding reduced economic growth opportunities, competitiveness in global trade and investment, and the overall welfare. Education funding cuts decreased the long-term competitive edge of many countries. As a combined effect, many countries have become significantly less innovative in transport: Prokopowicz (2013), Prokopowicz (2014a).

⁴ Infrastructure expenditures constitute more than a half of resources expanded by international finance institutions (IFIs) such as the Asian Development Bank, the World Bank, etc. National donors also make large infrastructure capital outlays. For example, the UK DFID spent nearly £1 billion on infrastructure in 2009–2010. Billions of euros have been provided by the European Commission within structural and cohesion funds to member states in the recent 20 years.

⁵ An intervention is something that comes between two things or something that changes the course of something. Term “intervention” is used in economy to address all financial and other actions to accomplish defined and pursued economic and social results.

making investment decision purely on political or other non-economic factors, without any consideration to the financial and economic feasibility issues⁶. The society-directed approach has become a prevailing solution for most national and international transport infrastructure development programs (IDP)⁷. The Value for Money (VfM) concept reflecting the society-directed approach has been in the recent years increasingly used as an investment evaluation tool.

Governments do not have their own money; they are responsible for distributing society's wealth by investing public funds. In the recent twenty years, the governments have started to treat transport investments more like private investors. They started investing funds which is different from just spending them. The money is invested either for profit or other material result. Assessing these results is critical for identifying the success of investments. If public funds are invested, the economic assessment should be carried out, separately or together with other evaluation activities⁸.

Several instruments to analyze, monitor, and evaluate transport investments have been developed in the recent years, and are commonly applied. Figure 1 depicts the relationships between these mechanisms, and the Value for Money (VfM) concept. The *financial and economic analyses* are the key elements in transport investment evaluation, and should be included in project evaluations of any kind. The Multicriteria Analysis (MCA) deals with additional quantified factors which have been defined by the beneficiary/investor as critical to the decision making process. The economic evaluation component should be incorporated in MCA⁹. The *economic impact studies* are frequently used by the governments to justify their long-term investment and subsidy strategies. These studies contain significant judgmental components and political interpretations. To insure their validity they must include economic assessment components. The Value for Money (VfM) concept is the most comprehensive analytical and management tool applied by governments for transport projects. It uses the financial and economic assessment components, and other factors which the governments wish to use for justifying capital outlays in a formalized assessment process. Figure 1 indicates that marketing activities are involved in all of the above project assessment instruments. First, marketing tools are used to provide input to the project evaluation process. Second, marketing serves as a tool for convincing and building support of the society for government decisions. In the democratic systems, the government's decisions are verified by the society during elections. Marketing helps the government to convince the public that public resources are being spent effectively, projects respond to societal needs and wants; and that the government deserves re-election. In the totalitarian systems, there are no

⁶ Such projects are not considered in this paper.

⁷ IDPs are all national, regional or international, structured and jointly managed multi-project, multidisciplinary, and multi-facility infrastructure programs such as: a) programs carried out by IFIs, European Commission or other regional organizations, b) separated international programs as PPIAF, CLIFF, EAIF, etc., c) programs carried out by specialized project management units (PMUs) of international organizations, d) national programs managed by central or local governments. DFID (2011f; 2013), European Investment Bank (2012), Fitzgerald (2004), HM Treasury (2004; 2006a; 2013), Infrastructure Ontario (2007), U.S. Department of Transportation (2011), World Bank (2010).

⁸ Projects that are evaluated without cost-benefit considerations have not been addressed in this paper.

⁹ The quantification and simultaneous consideration of many criteria is a key-feature of MCA.

such balances and checks and election systems, so neither feasibility studies nor CBA have been completed when deciding about the construction of access roads to, for example, Col. Muammar Gaddafi's residences.

| Value for Money – What it is and what it is not

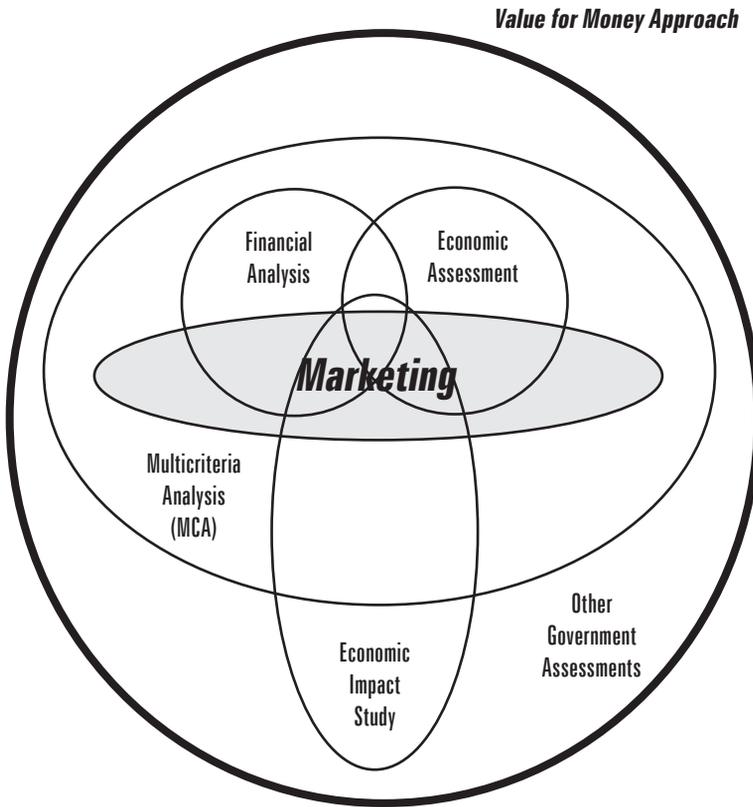
There are a number of factors which create special needs for monitoring and maximizing VfM for transport infrastructure projects, e.g., large amounts of money spent on transport infrastructure projects by the public and private sectors. These projects have a critical impact on the entire economy and are of high political importance, they often involve natural monopolies issues¹⁰; and require a wide range of interrelated interdisciplinary activities.

The Value for Money (VfM) concept has been employed by a number of governments, international organizations (e.g., the European Union), and international financing institutions (IFIs). VfM has become a frequently used method and criterion for selection and evaluating infrastructure projects, making capital budgeting decisions, delivering public infrastructure projects with lower cost and limiting the risk to society (taxpayers) (Bidne, 2011; British Columbia, 2012; Burger, 2011; Ireland, 2007; DFID, 2009; 2010; 2011a,b; European Investment Bank, 2012; Hawkesworth, 2010; Infrastructure Ontario, 2007; Lien, 2013; UKAID, 2012; Morillos, 2008, 2009; Poate, 2003; Prokopowicz, 2014). But what exactly is “value for money”? The term “Value for, Money” has recently been internationally embraced by both the public and private sectors. It appeared initially as a common daily conversation expression addressing a value concept and not a particular set of activities or a precise analytical methodology. The VfM idea has, likewise, been transferred to the political economy analysis without any clear and commonly accepted definition related to the contemporary economic scientific body of work. Politicians, public servants, and analysts often confuse VfM with other well-established analytical tools such as financial or economic analysis or MCA. The VfM is in fact, not a substitute for these tools. Limiting the scope of VfM activities to a simple compilation of standard financial and economic indicators is a misinterpretation. The VfM is a multi-dimensional concept which involves various coordinated actions in finance, management, marketing and other areas to improve the effectiveness of the entire transport infrastructure development process. In layman's terms, the VfM concept is a multidisciplinary comparison of costs of inputs with the impacts they create.

The VfM concept is most frequently used for transport infrastructure in three areas: a) best option selection, b) evaluating advantages of various schemes for project implementation (mainly comparing standard and public-private partnership (PPP) procurement options) (Rafael, 2010; Allen, 2007; Burger, 2008; DeBettinges, 2004; Morillos, 2008; Bidne, 2011; OECD, 2008; Yescombe, 2011) c) designing, assessing and monitoring project cycle efficiency (including project design, costs, inputs, activities, outputs, outcomes, and final impacts).

¹⁰ The consumers (society) usually do not have an individual market choice in transport infrastructure (or have a very limited choice).

Figure 1 | Value for Money, Project Assessment Tools, and Marketing for Public Transport Investments

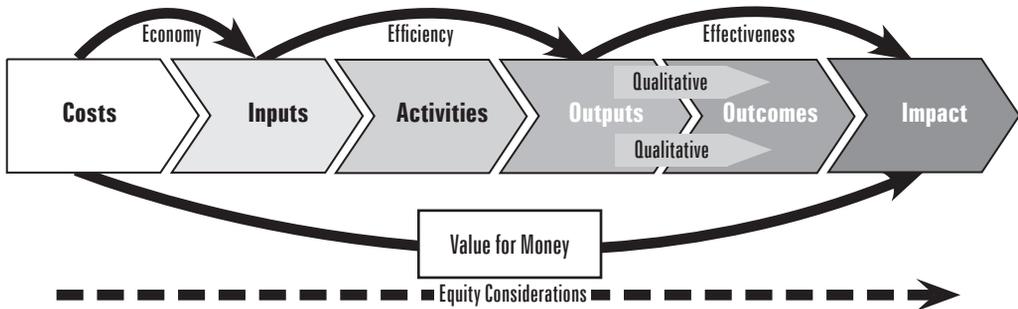


The logical and methodological scheme of the VfM methodology is presented within “The VfM Results Chain Approach Scheme” (see: Figure 2)¹¹. The scheme shows a logical sequence of activities in monitoring and controlling the costs of inputs, provision of outputs, creation of the desired outcomes and long-term impacts. The first elements are the **costs** defined as capital outlays which are committed to achieve desired impacts. The second element is **inputs** which include all the financial, human and material resources used to provide the intervention at all stages of infrastructure projects (e.g., expert advice on: the enabling environment, preparation and financing of infrastructure). The third component is **processes** (activities) which are conducted to deliver outputs. The fourth element is **outputs** defined as products, services or assets of the completed intervention. The fifth element is **outcomes** which include the realized short or medium term effects of the project and its outputs. Outcomes are not easy to define for

¹¹ This model was developed by the United Kingdom Department for International Development (DFID). It has been chosen as a foundation for further discussion because it provides a comprehensive VfM procedures overview. It was developed to monitor and evaluate the performance of activities in infrastructure interventions with focus on VfM creation and maximization. The model fully reflects worldwide accepted terminology. Although some terminology differs from country to country, conceptually major elements of assessing VfM for infrastructure programs applied by governments, donors and IFI are similar. The presentation was enhanced by observations of practical VfM implementation. UKAID (2012).

infrastructure projects since such interventions create primarily long-term effects. The outcomes identify change in infrastructure and market accessibility for sectors of the society which will benefit from the intervention (e.g.; better policies, new approaches). They identify what will change, who will benefit, and how the project will contribute to economic wellness¹².

Figure 2. The VfM Results Chain Approach Scheme



Source: UKAID (2012).

The final, sixth element is **impacts** representing long-term direct and indirect effects of infrastructure interventions. These are more strategic achievements, for example economic or industry production increases resulting from better transportation connections and access, and better environmental impacts resulting from transport improvements¹³.

Defining Value for Money

In the United Kingdom, it has been assumed that investments should be pursued only when they present VfM as the optimum combination of the project costs and quality of the goods or services to meet the users requirements. They correctly state that VfM is not the same as the choice of goods and services based on the lowest cost bid¹⁴. VfM is defined as a robust and complex process and analytical tool applied in all stages of a project's life cycle, including the study of project feasibility, project selection, and project evaluation (Morallos, 2008)¹⁵. The Australian definition of VfM indicates that it is a determination of the outcomes of (...) projects assessed against how they have contributed to the advancement of government priorities¹⁶. Other sources define VfM as a tool to assess whether or not an organization has obtained the maximum benefit from the

¹² Sometimes, intermediate outcomes are identified. These are outcomes which lie between outputs and full (final), desired outcomes.

¹³ To measure the performance of an activity vis-a-vis the Results Chain, a standard tracking framework called Logical Framework Approach ("Logframe") is usually applied. The Logframe involves a set of precise indicators that are used to measure whether or not an activity is achieving its intended outputs, outcomes, and impacts; UKAID (2012).

¹⁴ It is a key-element of the VfM concept and definition, distinguishing it from other analytical tools.

¹⁵ Six determinants of the VfM concept are defined in literature in relation to usage of Public Private Partnership (PPP) for infrastructure projects: risk transfer, long-term contracts, competition, performance measurement and use of output specification, performance measurement and incentives, private party's management skills (Morallos, 2008).

¹⁶ Queensland Reconstruction Authority (2010).

goods and services it both acquires and provides, with the available resources. The essence of VfM is a simultaneous application of quantitative and qualitative tools in a multidisciplinary environment as an organized capital outlay justification process. It compares the overall costs and benefits (monetized and non-monetized) over the entire development and life time of the project.

| Critical VfM Characteristics

The application of the VfM concept to transport infrastructure projects has a number of specific characteristics¹⁷. **VfM is not one specific or precisely defined indicator** that can be easily calculated and universally applied for all infrastructure project decisions (Burger, Hawkesworth, 2011). Some authors state that since VfM has many uses, and a uniform definition may be difficult to build, the concept of VfM must be clearly defined and described for each case where it is applied. One might argue that it may be difficult to address the project-specific VfM characteristics without a general framework in place. **The combination of quantitative and qualitative judgments** makes the VfM concept different from precise quantitative indicators commonly used for project assessment such as financial ratios, CBA, MCA or risk indicators. The VfM methodology may be described as an art of interpretations and judgments, based on quantitative input and qualitative reasoning. **Investor's priorities must be early and clearly defined** to provide for accurate quantitative and qualitative VfM judgments. The same investment may be preferred by one government and rejected by another. It depends on its priorities which can be impacted by a plethora of factors. These priorities do not have to be permanent and uniform. They may be re-considered and defined for each investment, depending on changes in life and society needs and wants. The VfM activities should therefore be dynamic; it means they need to be adjusted during project development and implementation to the changing investor's priorities. Practical application of this flexibility option, often decides about maximizing of the overall VfM. The VfM involves **judgments on project needs**. The governments acting on behalf of societies need to judge the unrevealed demand for investments and services (Kotler, 1980). They must identify projects and services which need to be delivered, and what will constitute the optimal combination of quantity, quality and other features during the infrastructure project's lifetime and cycle.

| VfM 3E Approach Definition

The presented earlier specific characteristics of VfM are reflected in the "3E Value for Money Concept" definition. It defines VfM based on three elements: **economy, efficiency and effectiveness** (Diamond, 2005) and may be treated as a core framework for any arguments on its scope and content. **Economy** is the minimization of the costs of inputs. **Efficiency** is the minimization

¹⁷ They have been presented in a random order because of lack of consensus on the content of VfM, setting up and justifying the order of importance might be difficult, and easily questioned.

of inputs for a given set of outputs, or the maximization of outputs for a given set of inputs. This entails both technical and economic efficiency. **Effectiveness** refers to the impact of policy, i.e., whether or not the outputs reached and delivered the desired outcome¹⁸. Economy, efficiency and effectiveness are mutually related and have to be simultaneously addressed during the assessment of VfM for a given project.

| VfM Demand and Supply Considerations

In the earlier arguments, we concentrated only on supply-side efficiencies and effectiveness while leaving the demand aspects of infrastructure improvements out. Some authors reason that this is insufficient and may be slightly deceptive. In practice, there are examples of transport infrastructure projects which, while maximizing supply VfM, created insignificant additions to the overall infrastructure systems, demand, and society needs (Diamond, 2005). For example, this happens if the constructed road or bridge does not fit the current or projected demand and does not respond to society's wants and needs. From an economic perspective, demand-side efficiency is more commonly known as allocative or Pareto efficiency¹⁹. The consideration of the demand aspects might be very difficult, but it has to be done since it is critical to judge whether a transport infrastructure project and resulting transport service really represents a meaningful VfM. It must be remembered that transport infrastructure projects are not built for the government's or politicians' benefit, but to provide better service and increasing quality of life of the society²⁰. The government acts only as a middleman in distributing public resources. When deciding on transport infrastructure projects, governments attempt to maximize VfM for the society (taxpayers) not for themselves (Burger and Hawkesworth, 2011). Unfortunately for VfM assessment, the welfare that individuals (society) derive from consuming public goods and services cannot be measured directly. It has been confirmed in the literature and economic theory that the demand for public goods and services is not always fully revealed²¹. It is then possible that services or infrastructures are delivered in a technically efficient way, i.e., reaching

¹⁸ The desired outcomes are improvements in capacity or throughput rates for a given transport system (outcome) achieved as a result of certain infrastructure improvements.

¹⁹ From the point of view of public welfare issues, the overall balance in resource allocation must be achieved to provide for efficiency. An improvement in allocative efficiency is attained if one can improve the welfare position of one subject (i.e. service recipient) without causing deterioration in the welfare position of another subject. This is attained by reallocating resources spent on services so as to deliver the quantity and quality of different types of outputs (with the desired output features) that will maximize welfare. When no reallocation can improve the welfare of one subject without causing a deterioration in the welfare of another, the allocation of resources is said to be allocative or Pareto efficient.

²⁰ *Quality of life* is a common term used to indicate the overall level of well-being or welfare of a person or group of people, taking into account both monetary and non-monetary factors. This notion is theoretically synonymous with utility and the satisfaction of wants and needs. However, from a practical standpoint, attempts have been made to measure the quality of life, primarily as a means of comparison between communities. Quality of life measures are composite indexes based on monetary factors such as income, wages, living costs, and taxes, combined with non-monetary factors such as crime rate, air quality, and education level. The provision of the desired infrastructure and transport services increasing mobility and access to various life activities undisputedly impact the quality of life.

²¹ It is called a free-rider problem.

all supply side goals, but they are not something society desires and wants to allocate resources to (Burger and Hawkesworth, 2011). Marketing research should be employed to evaluate such situations. Practical experience indicates that some transport infrastructure projects are initiated without full consideration of the demand side and are conducted because of political or other non-VfM related factors (e.g., some elements of the European transport network, or U.S. road and high-speed rail system investments).

| Two approaches for VfM Application

There are two approaches for achieving VfM in transport infrastructure projects: a) The Activity Approach concentrates on achieving VfM (highest impacts for the cost) in the process of project selection and implementation, b) The Project Cycle Approach focuses on VfM in relation to each element of the project cycle²². The Activity Approach concerns five major types of activities contributing to maximization of VfM (within IDPs or for individual projects) (UKAID, 2012): a) **Deep reforms of enabling environment** understood as the rules, systems, and strategies that governments can (and should) use to develop infrastructure, b) **Institution, capacity and consensus building**, c) **Efficient project preparation and development** (reaching commercial and/or financial project closure, promoting, demonstrating, and monitoring bankability, transaction advice, etc. d) **Project financing** which usually involves keeping construction costs under control, and insuring that the desired quality is achieved at an economic cost, e) **Improvements of operators' performance** (by reducing production and distribution losses, improving revenue collection, insuring effective maintenance of infrastructure assets or applying new technologies etc.)²³.

The Project Cycle Approach concerns four stages: a) **Identification stage** involves primary cost and benefits estimates; benchmarking costs and impacts to insure a balance between cost and quality and rationale for costs; needs and demand assessment to avoid over-designing; realistic traffic forecasts and assessment of user and management fees; choosing best procurement approach²⁴. The Cost Effectiveness Analysis (CEA) involves compiling and comparing unit cost estimates for the project with other interventions²⁵. The Cost Benefit Analysis (CBA) also

²² These approaches somewhat overlap.

²³ This should highlight financial benefits flowing to government and operators, such as budgetary savings and private operator profitability from infrastructure projects. It is especially important for transport infrastructure undertakings, and confirms earlier notions that one of the ultimate impacts of transport infrastructure projects is the increased capacity to provide services by infrastructure operators and transport services providers.

²⁴ Practical experience indicates that procurement has significant impact on VfM. It must address competition, effectiveness, delivery reliability, and be based on consistent selection criteria; and contain assessment of potential contractors' capacity to access and use local cheaper markets; and evaluate if prospective contractors have uniquely distinct skill sets and capacities to complete project effectively. Procurement based solely on the lowest price criterion often does not contribute to VfM maximization.

²⁵ For road construction, for example, these estimates may include: roads cost per km of road construction; cost per km of road maintenance; cost per green job created; cost per household accessed, cost per business accessed; cost per supplementary infrastructure (e.g. bridge, footpath), etc.

contributes to the VfM evaluation and maximization²⁶. The application of CBA should involve conservative estimates of direct and indirect costs and benefits²⁷. Various sensitivity tests for investment scenarios should be completed as transport system objectives can be achieved in many ways. b) **Design stage** involves: a more detailed project definition, preparing procurement, delivery, governance and management processes required to achieve the intended outputs, outcomes, and impacts. To insure proper data gathering and analyses it is necessary to design and implement an operational management, activity monitoring, and evaluation tool²⁸. Also, the capacity for a successful long-term economic and technical operation and sustainability of the project should be assessed²⁹. c) **Implementation stage** involves mobilization of inputs and delivery of outputs to achieve intended outcomes (Figure 2). It also involves: monitoring of costs, benefits and results in a dynamic project implementation process; providing judgment and assessing soundness of the VfM methodology; making adjustments to the project to maximize VfM³⁰, d) **Evaluation stage** activities involve a mix of mid-term or final evaluations. A thorough comparison of the VfM achieved with initial project assumptions is a key indicator identifying if a given undertaking was a success.

One of the most important issues for VfM maximization in transport infrastructure is the provision of **quality technical assistance (TA)** throughout the entire process. TA costs for large infrastructure projects typically account only for a fraction (e.g. 1%–2%) of the total project cost³¹. The donors should be devoted to spending the necessary resources for TA to fully accomplish the desired project outcomes. Small costs savings on TA often result in a significant VfM reduction during the following activities³². If VfM is to be maximized, making high-quality choices in program design, setting the right targets, assessing the market needs and demand, selecting and monitoring service providers effectively are essential. This is not always the case for EC

²⁶ The CBA methodology is commonly known so its description was not included in this paper. IEG (2010), Mishan (1976), Ward (1991), Ray Andarup (1984).

²⁷ CBA, as a principle, should focus primarily on evaluating direct regional benefits. Overall network (system) efficiency gains should be considered if only possible and if they are clearly identifiable. This often is a case for transport infrastructure projects which usually impact regional or national systems. More conservative views are presented in literature.

²⁸ This may be a M&E framework see: earlier in this paper. DFID (2011 c, d), Diamond (2005).

²⁹ Some experts say that the VfM analysis should also take into account the long-term sustainability of the activity after ending donor's involvement, and identify a strategy for devolution or exit, based on the expected continuing costs and benefits of the activity.

³⁰ Flexibility in project implementation should be an important element of any transport infrastructure investment project. As comes out from the presented argument, implementation is by itself a dynamic process. It is carried out based on some initial estimates and assumptions, which however may have to be changed because of various factors. Implementation should have the space for adjustments too. Unfortunately, it is not the case for majority of governments and donors who usually stubbornly stick to initial project assumptions even if data collected during implementation stage indicate that the activities, as they were initially planned, do not contribute to maximizing VfM. Lack of willingness to employ the dynamic implementation approach to infrastructure investments, may stem only from bureaucratic fear of independent reasoning and insufficient capital outlay and investment economics background. This is not conducive to VfM maximization.

³¹ This has been estimated based on a review of the World Bank and European Commission documents, and individual infrastructure contracts. Frequently, advice and studies produced at unreasonably reduced costs are shallow, and based mainly on cutting and pasting internet information, and the proposed systemic solutions do not reflect specific needs, demand, market, and local conditions for investment programs. This does not support the creation of VfM.

³² These conclusions are based on a review of multiple European Union funded infrastructure development programs for Central and Eastern European countries until 2013, and assessment of similar programs funded by international financing institutions.

procurement procedures. They frequently award TA services exclusively on the lowest bid principle. The Terms of Reference are often unrealistically expanded for the price; the time allotted for providing expertise is shortened below necessary minimum, and political and other non-economic considerations are often forced in by the beneficiaries into economic and multi-criteria assessment (e.g., imposed unrealistic monetization procedures, excessive weights for environment impact, underestimated or missing economic impact factors etc.)³³. Consequently, possibilities for insuring the highest possible quality of advice are limited, and very often ex-ante evaluations are shallow and cursory. The TA must be based, as much as possible, on a close client-adviser relationship, primary data collection, and site visits. A good understanding of local supply and demand factors, local and regional market knowledge, societal priorities, and in-depth, country-based justifications are critical. TA for financing is of a particular importance since the maximization of VfM greatly depends on financing options and solutions³⁴. VfM can be attained by implementation of modern project financing schemes such as the Results-Based Financing (RBF) and Public-Private Partnership (PPP)³⁵. Their application however, is still limited, since it takes significant time and requires specialized knowledge of experienced consultants. The availability of such necessary TA is limited to a large extent because of the circumstances described above.

| Marketing and VfM for Infrastructure Projects

Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large³⁶. This definition reflects the current status of marketing theory and approaches to marketing philosophies. During the Industrial Revolution the *production philosophy* was prevailing. Its emphasis was on production rather than sales, according to a principle that a good product will sell itself. In 1920s, this approach was substituted by the *sales philosophy* in response to oversupply of products compared with the demand. Its focus was on finding customers, and convincing and persuading them to buy. The sales function was not well-organized and subordinate to finance, production, and engineering. The *marketing concept philosophy* appeared next, and was defined as an integrated customer- and profit-oriented philosophy of business. The marketing concept defines the firm's mission in terms of the benefits and satisfactions which it offers to the customers, rather than the products it makes and sells. It is focused on identification of customer needs, and emphasizes both long- and short-range planning to achieve profits by meeting customer needs. This customer-knows-best approach has been labeled to be wasteful and

³³ See also: Antinoja (2011), British (2004), DFID (2014), HM Treasury (2013).

³⁴ VfM activities in this area involve two major objectives: keeping construction costs on or under budget, and making sure the works produce the desired quality of service at an economic cost.

³⁵ They can reduce risk and contribute to controlling costs.

³⁶ Definition approved by American Marketing Association Board in July 2013 <https://www.ama.org/AboutAMA/Pages/Definition-of-Marketing.aspx>.

not properly considering environmental issues. It was analyzed and criticized in the literature. The following *societal marketing philosophy* is based on the notion that the desired satisfactions should be delivered in a way that also enhances the well-being of society. It assumes that three elements should be considered in marketing activities: the buyer, the seller, and society at large. In the early years of this century, the *relationship philosophy* has surfaced. It is focused on building and strengthening long-term value-added relationships with customers. It assumes that it is more profitable to maintain and increase business with existing customers than to attract new customers, and that customers themselves usually prefer that. Like the societal marketing philosophy, relationship marketing went beyond customers to stress loyalty and strong working relations with suppliers, employees, and other stakeholders³⁷. The evolution of marketing philosophy reflects and shows the increasing needs for considering government's role in the various spheres of marketing activities. In the past, companies were relatively free in setting their marketing strategies such as product features, packaging, price, advertising, sales promotion. They were limited and concerned only with their clients and competitors. In recent years, there has been a major and probably irreversible trend towards more government regulations and intervention in the marketing decisions³⁸. The governments have meaningfully increased their involvement in economic activities. The growing government-funded transport infrastructure programs (national and international) are a good example of this trend. The governments also increase economic regulatory actions which impact conditions for the private sector development in global markets (sometimes positively and sometimes negatively). They have also become a significant customer of the private sector by purchasing numerous products and services. In this situation, marketing should address not only companies' but also governments' perspective.

The role of marketing in developing transport infrastructure projects has not yet been sufficiently explored. As indicated in the literature; marketing is a word used quite extensively in transportation, but typically in a micro rather than a macro context. Micro-marketing addresses activities of individual firms such as their plans, advertisement, and selling strategies. Macro-marketing, is applied in the process by which a community allocates resources for the benefit of its citizens³⁹. Researchers indicate that, too often transportation authorities use micro-marketing principles when they should be serving a macro-marketing role⁴⁰. This is because governments act as society agents in allocating resources for common benefits. The process of allocating resources by governments should be using macro-marketing activities for, e.g., long- and short-range plans, regulations and capital budgeting decisions. Major concerns for macro marketing are market regulation laws, marketing and social responsibility, socially desirable advertising techniques, the efficiency of marketing systems, and overall consumer behavior patterns (Hunt, 1976; 1983). There are two primary government marketing functions for transport infrastructure projects: a)

³⁷ Based on Sandhusen (2008).

³⁸ Kotler (1980). The author has observed and noted this trend in 1980. In the recent years, it has significantly intensified.

³⁹ In this case transport systems meaning: transport infrastructure and services. In this paper, we concentrate on infrastructure.

⁴⁰ Gray (1992). The authors concentrate on public transportation marketing; however there are significant conceptual parallels and overlaps between their arguments and various aspects of VFM.

providing critical input for investment decision (infrastructure creation and “selling” it to the society), and b) convincing the society about the correctness of its decisions. They are equally important.

Many components of the VfM concept refer directly or indirectly to marketing research. *Marketing research* is the function that links the consumer, customer, and public to the marketer through information used to identify and define marketing opportunities and problems; generate, refine, and evaluate marketing actions; monitor marketing performance; and improve understanding of marketing as a process⁴¹. Marketing research specifies the information required to address these issues, designs the method for collecting information, manages and implements the data collection process, analyzes the results, and communicates the findings and their implications.

A reference to the concept of *societal marketing* may be useful to properly represent the relationship between marketing, transport infrastructure programs, and the VfM concept. Societal marketing is a management oriented process that holds the key to determine the needs and wants of target markets and adapts the organization to delivering the desired satisfactions effectively and efficiently (Kotler, 1980). As defined by Kotler, there are three major underlying premises of societal marketing: a) consumers’ wants do not always coincide with their long-run interests or society’s long-run interests, b) consumers will increasingly favor organizations which show a concern for meeting their wants, long-run interests, and society’s long-run interests, c) the organization’s task is to serve target markets in a way that produces not only want satisfaction but long-run individual and social satisfaction. The application of the above concept to government’s activities in providing transport infrastructure indicates some resemblances and overlaps between societal marketing and the VfM approach. If we substitute in the societal marketing definition the word “organization” by “government”, we can reason that the government’s task is to provide best possible infrastructure by determining the needs and wants of the society, adapting its programs to delivering the desired satisfactions related to transport more effectively and efficiently in a way that preserves or enhances the consumers’ and society well being⁴². The essence of the competitive component in this respect refers not to market competitors but to political competitors. As stated earlier, the government acts as an agent of the society, with an objective to allocate taxpayers resources with emphasis on long-run consumer and societal well-being (by providing transport infrastructure). If the government is not successful in delivering the desired satisfactions more effectively and efficiently than its competitors (political opposition), and convincing the society about the correctness of its investments, it takes a risk of not being re-elected. The government must then use marketing, in various forms, to convince the society and gaining its support. The forms of these activities have not yet been sufficiently researched.

⁴¹ Definition approved by American Marketing Association Board in July 2004 <https://www.ama.org/AboutAMA/Pages/Definition-of-Marketing.aspx>.

⁴² It can be interpreted by marketing experts that the government acts as “a society social marketer who will sense or discover their needs and seek solutions”.

Conclusions: Value for Money – Is it an appropriate tool?

There are various arguments for and against the VfM concept. The following is an overview of major concerns regarding VfM application to transport infrastructure projects. First, the confirmed problems with identification and measuring VfM on the demand side, and assessing project contribution to the quality of life, etc., are valid but they can be overcome by governments. Governments, through their elected officials, are capable to judge society wants and needs; assess the demand for transport investments and services; and developing infrastructure expansion strategies (Kotler, 1980). By using marketing tools, governments can decide which transport infrastructure improvements are appropriate, needed and affordable within national or regional budgets constraints. Secondly, governments and donors are capable of identifying criteria which will be considered for choosing the optimal combination of quantity, quality and features. Thirdly, to use VfM methodology governments must have skills, courage and political will to make judgments and decide. They need to create a VfM system which will facilitate the process of selecting the most desirable alternatives, and insure that they are delivered with consideration of economy, technical and economic efficiency and effectiveness. The VfM application, being a method of logical reasoning based on analytical conclusions need to be, as much as possible, structured and organized. Fourth, VfM should consequently be applied over the entire project or program life. Fifth, to convince the society and obtain constituencies' approval, the governments need to develop and wisely use tools to assess the demand, and prove that they properly use public funds. Sixth, the above activities should be based on the VfM best practices⁴³. If the above described elements are effectively implemented, the VfM methodology may be successful. Marketing is embedded in the VfM concept. Intensive subsequent research is needed to create more detailed VfM schemes including structured usage of marketing tools. This strong need for developing a more definite content of the VfM approach is particularly important for transport infrastructure projects which involve billions of dollars and euros.

⁴³ This element is unfortunately often underestimated especially in highly bureaucratic donor organizations. Frequently, project management units or agencies established for providing assistance to create VfM in transport projects, and disseminating best practices turn into controlling units. Such a twist in their responsibilities contradicts the objectives of VfM maximization.

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