The B2G Manifesto:

Structured approach to Business-to-Government marketing and public sector market segmentation

- White paper 1 -

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Abstract

The B2G - Business-to-Government market is relevant and distinct from other markets such as B2B or B2C – retail, consumer. B2G is huge, but opportunistic, poorly defined, insufficiently researched. While large amounts of data are available, there are no systematic market research tools or methods.

This paper proposes a structured, systematic approach to the B2G market, building on methods already established from B2B and B2C. We propose a definition of the B2G – public sector market, and introduce specific B2G market segmentations such as Governmentgraphics.

Keywords

Public sector, B2G, Business-to-Government, governmentgraphics, firmographics, segmentation, B2C, Business-to-Consumer, B2B, Business-to-Business, market research, analytics, big data, marketing, sales, public procurement, public tendering, government contract, government tender.

1. Introduction: the B2G market

Business-to-Government (B2G) is the sale and marketing of goods and services to international, national, federal, regional, and local public administration ^{1, 2, 3}.

B2G is a fundamental market, alongside Business-to-Consumer (B2C) and Business-to-Business (B2B) 4.

The B2G domain is **huge** and **relevant**: the public sector represents 53% of the GDP of the European Union (EU), and 47% of the GDP in the US. Public sector procurement amounts to 14-20% of GDP ^{5, 6, 7, 8, 9}. More than 60% of Fortune 1000 companies are active in the B2G market, with government customers generally having a positive impact on a firm's value ¹⁰.

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The concept is novel, and the terminology is still being defined. Some other terms used are: B2PA - Business-to-Public-Administration; B2PS - Business-to-Public-Sector; PS - public sector; PP - public procurement.

The domain is recognized, but is insufficiently researched. There are almost no published articles or books on this topic ^{10, 11, 12}. At the same time, there is a significant need for both authorities and contractors to understand their ecosystem through advanced market intelligence and analytics and control the procurement process. According to a 2022 World Bank study, the inefficiencies in public procurement are estimated at 25% of total spending ¹³.

The structured study of the Business-to-Government market supports with 2 main government policy and societal objectives:

- Better public procurement governance and public spending efficiency, through increased competition, transparency, and accountability of data and spending ¹⁴, thus supporting better application of the law, reduced corruption, and enabling innovative gov-, reg- and legal-tech applications ¹⁵.
- Improved economic environment, by supporting contractors to understand the public sector market and automate their sales processes, thus allowing for increased participation ¹⁶.



Figure 1 Governmentgraphics

1.1. B2G market characteristics

The B2G (public sector) market is different from B2C and **distinct** from B2B.

B2G actors, products, and opportunities have characteristics which are specific, relevant, and distinctive. **Public sector organizations** are characterized by:

- Bureaucratic, formal.
- Long decision cycles, management by committee comitology ^{17, 18}.
- Parkinson's law: work expands so as to fill the time available for its completion ¹⁹.
- Hofstadter's law: it always takes longer than you expect, even when you take into account this law²⁰.
- The Pygmalion effect, or Rosenthal effect: the phenomenon whereby higher expectations lead to an increase in performance.

Accordingly, public sector projects are:

- Large or very large.
- Complex ²¹.
- Critical.
- Impacted by complex stakeholder maps.
- Executed in complex regulatory environments.
- Driven by political agenda and influenced by varied political interests, formal and informal.
- Vulnerable to political change, which might change priorities and discontinue or derail projects ²².

The B2G market is characterized therefore by:

- Fewer buyers than in B2C or B2B therefore there are fewer market segments.
- Fewer opportunities.
- Individual opportunities are significantly larger in B2G.
 - O *Black swan* projects are more likely to occur rare, mammoth projects, particularly large, that significantly disrupt the market ^{23, 36}.
 - O Thus, it is more difficult to use traditional statistics.
 - o In contrast, the B2B market operates according to the 80-20 Pareto rule: 20% of customers generate 80% of revenue. The B2C market generally follows a normal Gaussian distribution, due to higher numbers ³⁶.
- The sales cycle is much longer (up to several years).
- The barriers to entry and corresponding costs are higher especially for SMEs ²⁴.
- The B2G market is more stable than B2B, and much more stable than B2C. This means that segmentation variables are also more stable, and data can be used longer ^{10 36}.
- The procurement process is formal. It includes specific formal bid/tendering procedures.
- Public procurement is in principle more transparent, and more data is publicly available ^{25, 26, 27, 28, 29}.
- Contrary to B2B or B2C, B2G buyers are neither manufacturers, nor consumers ³⁰.
- B2G buyers are driven by political objectives, in contrast to B2C or B2B which are driven by commercial and financial objectives ¹⁰.

A comparative analysis of the differences between B2C, B2B, and B2G is presented below. Business-to-Big-Business (B2BigB), also called Business-to-Enterprise, is a stepping stone between B2B and B2G.

Table 1. Market comparison: B2C, B2B, and B2G

	B2G	B2BigB	B2B	B2C
Project/deal size	Very Large, huge	Very large	Medium	Small
Diversification	Low (few buyers)	Low	High	Very high
Fragmentation	Low (few contractors)	Low	High	Very high
Negotiation power	Buyer	Buyer	Shared	Seller (non-negotiables)
Process & purchase criteria	Formal (references, CVs, turnover, certifications)	Semi-formal. Networking, quality, price	Informal. Quality, price	Informal. Quality, price
Sales cycle	Long, formal	Long, heavy	Medium	Short, informal

2. B2G market segmentation

2.1. Strategic marketing approach

The essence of strategic marketing is: segmentation, targeting, and positioning ^{31, 32}.

A marketing strategy consists therefore of:

- **Segmentation**, i.e. the contextual, relevant analysis of the market.
- **Positioning**, i.e. the analysis of the *current* position on the market. Market positioning can be defined as the analysis of the current position, of a specific market player, in a specific market, based on specific, relevant market segmentation.
- Targeting, i.e. the analysis of the desired position on the market.
- **Plan** for transitioning from the **current** to the **target** market position.



Figure 2. Marketing strategy

2.2. Market segmentation

Market segmentation is the identification of the most important, significant differences among customers that will influence their purchase decisions or buying behavior, while keeping the scheme as simple as possible ^{33,34}.

The objective of market segmentation is to make targeting and product positioning decisions.

Segmentation variables are characteristics defining key differences in customer behavior. They must be:

- Relevant, aka meaningful.
- Identifiable, aka distinct, and measurable.
- Substantial, aka sizeable; i.e. relevant to a substantial group of customers.
- Responsive, actionable, and stable relative to a specific marketing strategy ^{26, 35, 36}.

Market analysis follows mostly a quantitative approach. Contemporary marketing and market research rely on the considerable amount of available data, and on the significant opportunities offered by data science, in order to extract qualitative conclusions; to transform raw data into information, and into knowledge.

The analysis of the segmentation variables can be:

- Cross-sectional (static).
- Longitudinal (dynamic), which includes the analysis of trends.

B2G relies on already established B2B/B2C methods. In fact, business marketing and market analysis, including B2B and B2C, are solid, well-researched domains and fields of study ³⁷.

2.3. Market segmentation based on traditional B2B and B2C methods

The traditional **B2C market segmentation** is based on:

- Geographic segmentation.
- Demographics.
- Psychographics ³⁸.
- Behavior ³⁹.

These are translated to **B2B macro-segmentation** as:

- Geographics answering the question where.
- Firmographics (or emporographics) which is similar to demographic; i.e. company features, the characteristics of the buying organization. *Who*.
- Product and product usage. What, and How much.
- Benefits desired, i.e. needs, preferences, and desired relationship. Why.
- Purchase Behavior. How.
- Attitudes, or psychographics (What they think) 36, 40, 41.

Micro-segments are homogenous groups of buyers within the defined macro-segments ²⁶. Sometimes the same variables are listed by literature as macro, and sometimes as micro-segmentation.

The most commonly used **B2B segmentation variables** are ^{26, 42, 43}:

- The geographic location of customers.
- Geographic coverage.
- *Firmographics* also known as *emporographics*, or feature-based segmentation. It is the B2B equivalent of the B2C demographic segmentation ^{36, 44, 45, 46}. It is feature-based and includes characteristics such as:
 - Company/organization size.
 - o Industry, vertical, or business domain.
 - Type of organization.
- Benefit segmentation: the product's economic value to the customer.
- Technology, brand (operating variables).
- Business potential, including size, budget, spending, and trends.
- Purchasing strategies, e.g.:
 - o Global vs. local decision-making structure.
 - o The structure of the decision-making unit.
 - o The decision-making power of purchasing officers vs. engineers or technical specifiers.
- Supply chain position.
- Situational factors: perceived importance of the product to the customer's business; application, urgency.
- Psychographics, or attitudes towards the supplier: personal characteristics of buyers, such as age, education, job title and decision style, character, and approach.

The industries, suppliers, and products are classified according to various segmentations such as:

- Market-based classification systems such as the Global Industry Classification Standard (GICS), the Industry Classification Benchmark (ICB), and The Refinitiv Business Classification (TRBC) are used in finance and market research ⁴⁷.
- Supplier segmentation approaches ⁴⁸.
- Product classification ⁴⁹.

2.4. B2G segmentation. Governmentgraphics

The segmentation of the B2G market has specific particularities compared to B2B and B2C:

- Geographics: the location of suppliers is also an important variable, besides the location of the customers.
- There are specific language requirements.
- Regulatory environment and applicable legislation ¹⁰.
- The feature-based segmentation of public procurement institutions is different.
- Due to the distributed decision-making process, characterized by comitology, psychographics and the analysis of attitudes and behavior are less relevant for the B2G market ¹⁷. This is similar with the observation that the purchasing behavior is more rational in B2B than in B2C ³⁶.

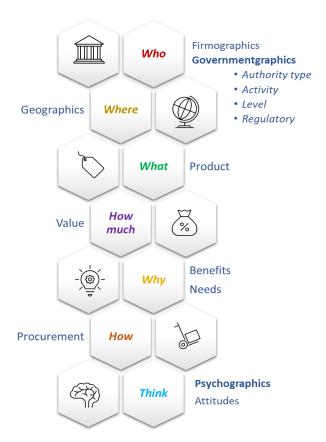


Figure 2 B2G segmentation

Accordingly, in addition, and complementary to traditional B2B and B2C segmentation variables, we propose a specific approach for the B2G market.

Governmentgraphics is the specific B2G segmentation approach, which analyzes specific variables and indicators. It is a feature-based segmentation. It is similar to firmographics (emporographics) in B2B, and to the demographics segmentation in B2C market research.

The main proposed B2G segmentation categories are presented in Table 2. The following Table 3 presents practical examples of segmentation variables.

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Table 2. B2G segmentation categories

Segmentation	Question	Examples
Governmentgraphics	Who buys	Authority type, activity (sector), regulation, level, size.
Firmographics	Who sells	Industry (vertical), company size, type.
Geographics	Where	The location of the authorities and of the suppliers. Coverage.
Product	What	Product, industry, technology, brand (operating variables).
Cost	How much	Customer budget. Product price.
Procurement behavior	How	Procedures, regulations.
Business objectives	Why	Benefits. Needs.
Psychographics	What they think	Attitudes. Behavior.

Table 3. B2G segmentation variables

Authority type	International organization, national or federal institution, national agency, regional authority, local authority, institution governed by public law, private non-government organization, private for-profit organization ⁵⁰ .	
Activity (domain, vertical)	Health, defense, social security, employment, education, environment, transport.	
Level	International, national, regional, local.	
Value	Transactional, or monetary segmentation: Market size, i.e. the total value of all projects. Budget - a proxy for market size. Average project size.	
Regulation	Applicable legislation and regulatory environment.	

In addition to the proposed macro-segmentation, we also introduce a set of transactional indicators for Governmentgraphics segmentation, describing recency, frequency, and monetary market characteristics. These indicators are contextual. They are presented in Table 4.

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Table 4. B2G transactional indicators

Market diversification	Number and variety of contractors (suppliers).	
Market fragmentation	Number and variety of authorities (buyers), projects, or procurement procedures.	
Partnership appetite	The overall openness to partnership.	
Partnership affinity	The strength of the relation between 2 specific authorities and contractors. The set of all relations form a <i>market affinity graph</i> .	
Entry difficulty	e openness to new suppliers, or the difficulty of the entry-barriers.	

3. Conclusions

This paper attempted to give structure to a new market: B2G - Business-to-Government, also known as public sector sales, or government procurement. The market is large, distinct, and relevant, but not sufficiently analyzed.

We proposed a formal definition of B2G. We made an analytical description of the market. Building on traditional market research methods and segmentations used by practitioners and researchers for the B2C and B2B markets, we proposed specific segmentation categories and variables applicable to the B2G market.

This paper can constitute a starting point for a more rigorous, formal study of the public procurement – B2G market.

A structured approach to G2G can lead to better public procurement governance and public spending efficiency, as well as to an improved economic environment.

Annex: Glossary of terms

This annex presents a glossary of the most important terms and concepts used in the B2G market, thus trying to establish a common vocabulary, i.e. a public procurement ontology. In principle, these are aligned with the eProcurement ontologies used by public authorities and regulators such as the European Commission ^{51, 52}.

The main concepts of the B2G market are: **Authorities**, **Contractors**, and project **Opportunities**. Authorities spend public funds, typically by publishing Opportunities (calls for tender) and subsequently signing **Contracts** with Contractors. Contractors receive funds in exchange for their products, services, or works.

A **tender** Opportunity is formed of one or several **Lots**. For each Lot, one or several Contracts are awarded to a Contractor, or to a Consortium. A **Consortium** is a partnership formed of several Contractors, with the first partner usually being called a Consortium Leader.

Table 1. Glossary of terms

Term	Definition	Synonyms
Authority	A public organization that procures (buys) services, products, or works, spending money for any type of purpose on the B2G Business-to-Government market. E.g. European Commission, European Parliament, a Ministry, a City Council. While authorities are identified by name and address, authorities rarely have unique or obvious identification data.	Buyer, client, donor. Contracting authority, public organization, public body, public administration, government agency.
Contractor	Winner of a procurement procedure (Opportunity). Supplier of services, products, or works to an Authority. A Contractor can be an NGO or a private company. Sometimes public Authorities can also act as Contractors, delivering services/products to other Authorities. A private contractor has typically a registration number, a VAT code, an address, a phone number, etc. These differ from one legislation to another. Not all Contractors have unique identifiers.	Seller, supplier (in a Contract). Tenderer, participant (in a procurement procedure). Beneficiary (of a grant).
Contractor Group	A group of Contractors, likely to act in a concentrated manner on the public sector market. A multinational corporation is a typical example of a Contractor Group. E.g. the IBM group consists of hundreds of companies and subsidiaries, located in 177 countries. Each IBM subsidiary is an individual organization, with a specific address and registration information. But all of these are ultimately controlled by the legal entity "International Business Machines Corporation", registered in New York.	Brand

	The members of a Group are typically controlled by a single parent. As such, normally they don't compete against each other, sometimes because of internal Group policy, but also because of formal procurement regulations of Authorities, which do not usually allow multiple proposals from the same Contractor.	
Opportunity	A business opportunity in the public sector. It is typically a procurement procedure for buying specific services or products, but it can also be a call for proposals, a call for solutions, or even a grant.	Tender, procurement procedure, negotiated procedure. (Rare): Contract, Project.
	Opportunities may be future, past, possible, open or closed tenders, or other procurement procedures.	
	An opportunity has one or several lots. It can result in no Award, or one or several Contract Awards.	
Lot	A tender has several lots. Typically, Contractors can apply to each lot independently. Each lot is awarded to one or several Contractors or Consortia.	
Consortium	A grouping of Contractors that participate together in a procurement Opportunity, in order to sign jointly a single Contract with the contracting Authority. A Consortium is formed of several Contractors, named Consortium Members.	Grouping, association, partnership
	The first Contractor in a Consortium is usually called Consortium Leader.	
Award, or Contract Award	A Contract Award is the result of a procurement procedure, i.e. the result of an Opportunity.	
	A Contract is awarded by an Authority to one or several Contractors, or Consortia composed of several Contractors.	
Contract	The result of a Contract Award is a Contract. In each, lot, the order of the Contracts is usually important. Execution is usually cascaded from the first Contract to the last.	
Framework Contract	A Contract that is executed through several individual independent Orders, or Specific Contracts.	
Purchase Order	Purchase Orders are parts of a Framework Contract.	Order, specific contract, specific request.
Grant	A sum of money given by a government or other organization for a particular purpose.	
	A Grant is a specific type of Opportunity, aimed to fulfill the needs of the Contractor.	

	For grants, Contractors are typically called Beneficiaries, and the Authority is also called a Donor.	
	Sometimes, Authorities also finance mixed project Opportunities, such as Pilot Projects. These combine characteristics of both grants and tenders, financing a private entity to fulfill a general public interest need.	
Notice	An individual piece of official information. Can be a contract notice, prior information notice, contract award notice, payment information, corrigendum or addendum to another notice, etc.	Procurement notice, tender notice, contract notice, award notice
Alias	A different name for the same organization or entity. Both Contractors and Authorities can have Aliases.	
Fragmentation	Fragmentation measures the degree of diversity of the project Opportunities in a specific market segment.	
	It shows the diversity of authorities and opportunities.	
	E.g. how many and how varied/diverse are the opportunities, products, services, delivery locations, etc. on a specific market segment.	
Diversification	Diversification measures the level of the competition in a specific market. Low diversification means few suppliers, while high diversification means heavy competition.	
	Diversification shows the degree of diversity of the market, from the point of view of contractors (suppliers).	
	E.g. how many suppliers are active in a specific market segment, from how many (different) locations are services and products delivered, etc.	
Industry	Industries, domains, and topics describe the services and products procured on the public sector market.	Vertical
	Each Opportunity is classified into one or several such categories.	
	Industries, domains, and topics form a hierarchy. If an Opportunity is classified to a specific Topic, it is also automatically classified to the parent Domain of that Topic; and to the parent Industry of that Topic.	
	Industry is the largest classification. It contains domains and topics.	
	Examples of industries are: Construction, IT.	
	I .	I

Domain	A Domain contains a grouping of topics (CPV codes), as defined by the official Common Procurement Vocabulary ⁵¹ , ⁵² . A Domain is a direct correspondent of the CPV <i>division</i> in the	CPV division
	CPV classification.	
	E.g., for the Construction industry, there are Domains such as "architectural, construction, engineering".	
Topic	Topics are specific classifications of all public procurement services or products, as defined by the official Common Procurement Vocabulary ^{51, 53} .	CPV code
	E.g., for the Construction industry, a possible Domain is "architectural, construction, engineering", and a possible Topic is: "architectural and related services".	
EU	European Union	
EC	European Commission.	
Renewals	Renewals are Opportunities for Contracts that have a specific duration, and which are likely to be continued, through another procurement Opportunity, very similar to the initial one.	
Project	A business project implemented through several Contracts, some in parallel, some subsequent.	Program
	Sometimes large Projects are called Programs.	

4. Bibliography and notes

¹ Cambridge Dictionary. Meaning of B2G in English. Retrieved on 22 March 2023 from https://dictionary.cambridge.org/dictionary/english/b2g

² The SMB Guide (7 October 2021). What is Business to Government (B2G)? Retrieved on 16 June 2022 from https://www.thesmbguide.com/business-to-government

³ A few articles consider B2G to be a form of e-commerce, or e-procurement, and sometimes a subset of e-government. This is a narrow definition that we do not embrace. We consider B2G as a market, not only as a IT approach. Our proposed definition of B2G encompasses therefore all marketing and sales activities where the buyer or financier is a public sector organization, regardless of what sales or marketing channels, methods, or tools are employed.

⁴ Kenton, Will (30 August 2021). Business to Government (B2G): Selling to the Government. Retrieved on 16 June 2022 from https://www.investopedia.com/terms/b/business-to-government.asp

⁵ Eurostat (2022). <u>General government expenditure by function (COFOG)</u>

⁶ European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (2021). <u>An analysis of SMEs' needs in public procurement</u>. Retrieved on 16 June 2022.

- ¹¹ Grewal, Rajdeep, Lilien, Gary L. (2012). Business-to-Business Marketing: Looking Back, Looking Forward. In Handbook of Business-to-Business Marketing. Cheltenham, England: Edward Elgar, 3–14.
- ¹² We could not identify peer-reviewed scientific articles that define or study the B2G Business-to-Government marketing and sales. Various articles mention the term, but there is no attempt at a rigorous definition or study of the domain.

Most of these articles mention the term as a secondary topic or as an example, without defining or analyzing it. Some articles research particular sub-topics, such as corruption studies in particular countries. There are several studies on the impact of e-government, e-commerce tools, data-exchange, or open-data policies in public procurement or in citizen relationship management (CRM). We also found several commercial documents mentioning B2G, from companies providing services on this market.

The databases searched were: the entire KU Leuven library, including SSCI, SCIE, Emerald, Pro Quest, Scopus, Springer, Taylor & Francis etc. The search keywords were: B2G, Business-to-Government.

Examples of search strings and results:

- Title contains B2G and any field contains "marketing": 8 articles.
- Title contains (B2C or B2B) and any field contains "marketing": 4639 articles.
- Title contains "Business-to-Government": 78 articles.
- Title contains "Business-to-Business" or "Business-to-Consumer": 4181 articles.

⁷ Statista. Public spending ratio in the member states of the European Union in 2020. Retrieved on 16 June 2022

⁸ Eurostat. <u>Trading Economics</u>. Retrieved on 16 June 2022.

⁹ European Commission. Public procurement. Retrieved on 22 March 2023 from https://single-market-economy.ec.europa.eu/single-market/public-procurement en.

¹⁰ Brett W. Josephson, Ju-Yeon Lee, Babu John Mariadoss, & Jean L. Johnson (2019). <u>Uncle Sam Rising: Performance Implications of Business-to-Government Relationships</u>. 83(1) 51-72. doi:10.1177/0022242918814254. Retrieved on 16 June 2022

¹³ World Bank (2022). <u>A Global Procurement Partnership for Sustainable Development: An International Stocktaking of</u> Developments in Public Procurement.

¹⁴ European Commission. Single Market Scoreboard - Access to public procurement. Retrieved on 22 March 2023 from https://single-market-scoreboard.ec.europa.eu/business-framework-conditions/public-procurement en.

¹⁵ European Commission (2022). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: <u>A European strategy for data</u>.

¹⁶ European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (2021). <u>An analysis of SMEs' needs in public procurement</u>.

¹⁷ European Commission. Comitology. Retrieved on 16 June 2022.

¹⁸ Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers.

¹⁹ Parkinson, C. N. (1958). Parkinson's law: or, The pursuit of progress. London: John Murray.

²⁰ Gödel, Escher, Bach: An Eternal Golden Braid. 20th anniversary ed., 1999, p. 152. ISBN 0-465-02656-7.

²¹ Morcov, S. (2021). <u>Managing Positive and Negative Complexity</u>: <u>Design and Validation of an IT Project Complexity</u> Management Framework. PhD thesis, KU Leuven University.

²² Morcov, S. (2020). <u>Complexity & innovation in public sector IT projects - The supplier perspective</u>. KU Leuven.

Procurement transparency is also linked to democracy and corruption (Bajpai,Rajni; Myers,C. Bernard. Enhancing Government Effectiveness and Transparency: The Fight Against Corruption. Washington, D.C.: World Bank Group).

Notably, UN institutions communicate very little information regarding their procurement process. In fact, UN institutions never publish or communicate who are the winners, the winning prices, or award criteria. Accordingly, there were numerous issues signaled related to UN procurement, such as:

Akanksha Arora (27 May 2022) Retrieved on 16 June 2022 from <u>How the UN Has Been Reduced to Corrupt Deal-Making and Rule-Breaking</u>. News18.

David A. Fahrenthold and Farnaz Fassihi (2022). Retrieved on 16 June 2022 from <u>A Pot of U.N. Money. Risk-Taking</u> Officials. A Sea of Questions. The New York Times.

Fox News (2015). U.N. Procurement Scandal: The Case of the Official Who Never Was – Retrieved on 16 June 2022

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²³ Taleb, N. N. (2007). The Black Swan: The Impact of the Highly Improbable. Random House.

²⁴ European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (2021). <u>An</u> analysis of SMEs' needs in public procurement. Retrieved on 16 June 2022.

²⁵ European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (2021). <u>Study on the measurement of cross-border penetration in the EU public procurement market</u>. Retrieved on 16 June 2022.

²⁶ Furtado, Mariana (15 July 2021). Business to Government (B2G) data sharing workshop – 5th and final workshop. Retrieved on 16 June 2022 from https://living-in.eu/news/business-government-b2g-data-sharing-workshop-5th-and-final-workshop

²⁷ European Commission (30 March 2019). Business-to-Government (B2G) Data Sharing in Europe. Retrieved on 16 June 2022 from https://data.europa.eu/en/datastories/business-government-b2g-data-sharing-europe

²⁸ Projects related to security are less transparent - e.g. NATO procurement, while rigorous, is not transparent.

²⁹ Michèle Rivasi, Committee on Budgetary Control, European Parliament (2021). Report on the evaluation of preventive measures for avoiding corruption, irregular spending and misuse of EU and national funds in case of emergency funds and crisis-related spending areas

³⁰ Kumar, Vinod; Raheja, Gagandeep (2013). Business to business and business to consumer management. INTERNATIONAL JOURNAL OF COMPUTERS & TECHNOLOGY. 3 (3). CiteSeerX 10.1.1.299.8382

³¹ Weinstein, Art (2014). <u>Segmenting B2B technology markets via psychographics: an exploratory study</u>. Journal of Strategic Marketing. 22(3): 257–267. http://dx.doi.org/10.1080/0965254X.2013.876072

³² Kotler, P., & Keller, K. L. (2010). A framework for marketing management (12th ed.). Upper Saddle River, NJ: Prentice-Hall.

³³ Webster, Fredrick (1991). Industrial Marketing Strategy. Third Edition. John Wiley & Sons

³⁴ Simplicity is defined and used according to the principle of Occam's Razor.

³⁵ Gavett, G. (2014). What You Need to Know About Segmentation. Harvard Business Review. Retrieved on 16 June 2022.

³⁶ David Willan (2015). Circle Research White Paper: B2B Market Segmentation. Circle Research (currently Savanta)

³⁷ Roberto Mora Cortez, Ann Højbjerg Clarke, Per Vagn Freytag (2021). <u>B2B market segmentation: A systematic review</u> <u>and research agenda</u>. Journal of Business Research. (126): 415-428. ISSN 0148-2963. doi:10.1016/j.jbusres.2020.12.070

³⁸ Wells, W. D. (1975). Psychographics: a critical review. Journal of Marketing Research. 12: 196–213.

³⁹ Wedel, M., & Kamakura, W.A., Market Segmentation: Conceptual and Methodological Foundations, Springer Science & Business Media, 2010, pp 8-9

⁴⁰ Weinstein, Art (2004). Handbook of Market Segmentation – Strategic Targeting for Business and Technology Firms. 3rd Ed. Haworth Press.

Revised 22 March 2023

⁴¹ Weinstein, Art, & Jamieson, Frank (2016). B2B Segmentation white paper: <u>B2B market segmentation</u>. 5 key segmentation dimensions. doi: <u>10.13140/RG.2.1.4661.3520</u>

⁴² Bonoma & Shapiro (1984). <u>Segmenting Industrial Markets, Lexington Books. macro segmentation level</u>. Harvard Business Review. Retrieved on 16 June 2022 from https://hbr.org/1984/05/how-to-segment-industrial-markets.

⁴³ Hutt, Michael D., & Speh, Thomas W. (2004). Business Marketing Management: A Strategic View of Industrial and Organizational Markets (8th ed.). Thomson/South-Western. ISBN 978-0324190434

⁴⁴ Weinstein, A. (2013). Handbook of Market Segmentation: Strategic Targeting for Business and Technology Firms. 3rd Ed. Routledge.

⁴⁵ Wikipedia: Firmographics. Retrieved on 16 June 2022 from https://en.m.wikipedia.org/wiki/Firmographics

⁴⁶ Mitchell, Vincent-Wayne; & Wilson, Dominic F. (1998). <u>Balancing Theory and Practice</u>. Industrial Marketing Management. 27 (5): 429–445. doi:10.1016/S0019-8501(98)00002-9.

⁴⁷ Wikipedia: Industry Classification. Retrieved on 16 June 2022 from https://en.wikipedia.org/wiki/Industry classification

⁴⁸ Numerous proposed supplier segmentation approaches and methods are proposed, e.g. those listed on the <u>Wikipedia Industrial market segmentation</u> page: Parasuraman (1980), Kraljic (1983), Dyer et al. (1998), Olsen and Ellram (1997), Bensaou (1999), Kaufman et al. (2000), van Weele (2000), Hallikas et al. (2005), Rezaei and Ortt (2012)

⁴⁹ Wikipedia: Product Classification. Retrieved on 16 June 2022 from https://en.wikipedia.org/wiki/Product classification

⁵⁰ European Commission - Publications Office of the EU (2020). <u>Ted Help Pages</u>. Retrieved on 22 March 2023 from https://ted.europa.eu/TED/static/help/en.pdf.

⁵¹ COMMISSION REGULATION (EC) No 213/2008 of 28 November 2007 amending Regulation (EC) No 2195/2002 of the European Parliament and of the Council on the Common Procurement Vocabulary (CPV) and Directives 2004/17/EC and 2004/18/EC of the European Parliament and of the Council on public procurement procedures, as regards the revision of the CPV. Retrieve on 22 March 2023 from https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008R0213.

⁵² European Commission - Publications Office of the EU: CPV. Retrieved on 22 March 2023 from https://simap.ted.europa.eu/cpv.