

## The Classification of Business Intelligence and Electronic Commerce Software

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**ABSTRACT** The term business intelligence (BI) represents the tools and systems that play a key role in the strategic planning process of the enterprise. These systems allow a enterprise to gather, store, access and analyze data to support decision-making process. In many ways business intelligence is a more general phrase as it does not refer to one single type of analysis or data, but rather it represents a variety of methodologies, technologies, and software applications and tools to organize and analyze all of an enterprise data. In the paper, BI tools, systems and applications are viewed through broader context of most important categories of software. On the other side, the paper particularly treats electronic commerce software that can be implemented in small, medium and large enterprises..

**KEYWORDS** classification of software, business intelligence, electronic commerce software

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### I. INTRODUCTION

As we already stressed, business intelligence represents the combination of software applications, methodologies and systems that play a key role in the decision-making process of an enterprise. Most enterprises collect huge amounts of data from its business operations. To keep track of that information requires a wide range of software programs and different database applications for various departments (e.g. sales, finance, supply) throughout the organization to access and use the data. Using multiple software programs makes it difficult to retrieve information in a timely manner and to perform analysis of the data. A business intelligence solution replaces the multiple tools traditionally used to collect and analyze the data. Business intelligence software is also designed to use data that is stored by the organization in a any type of data storage system or data warehouse.

Although it is hard to define term BI because of its broad meaning, the effect of a business intelligence system is much easier to define. The system provides the means to report, analyze and then present the data. The BI system takes all the raw data and provides management and decision-makers of an organization with useful and relevant reports and graphs. Management then makes sense of the reports, and uses it to analyze business trends in order to take benefit from the business trends and opportunities. By using of the system, management is able to better understand an organization's strengths and weaknesses and to better see the relationship between different data for effective decision-making and deployment of resources. BI software plays a key role in the strategic planning process of the organization in the areas of customer profiling, customer support, market research, market segmentation, product profitability, statistical analysis, and inventory and distribution analysis etc.

Business intelligence software applications can be deployed in a number of ways. The most common options are: on-premise installment (deployed in-house using owned or leased equipment), cloud computing implementation (private cloud, hybrid cloud or a public cloud), SaaS (Software as a Service - hosted on-demand by the application service provider). In the paper, we take into account only first option (in-house deployment of BI software). We give classification of packaged software (software taxonomy) and determine place of BI applications in the broad classification scheme of software.

On the other hand, innovative online e-business systems, supported by different software, find application in the field of trade, banking, public administration, etc. For this reason it is necessary to consider various kinds of software for electronic commerce and in what ways it is possible to use software for e-commerce. Moreover, we need to point out their characteristics and features they provide.

The paper is organized and structured in five parts. In the second part of paper, comprehensive classification of packaged software are given. The third part of paper is dedicated to BI software, particularly to two categories of BI applications: end-user query, reporting, and analysis (QRA) and advanced analytics. The fourth part of paper analyses features and classification of software for electronic commerce, while the fifth part of paper summarizes results of the research.

## II. OVERALL CLASSIFICATION OF PACKAGED SOFTWARE

### Classification of packaged software by market criteria

Packaged software is programs or codesets of any type commercially available through sale, lease, or rental, or as a service. We use the term packaged software to distinguish commercially available software from "custom" software, not to imply that the software must be provided via physical media.

IDC (International Data Corporation) gives software taxonomy which includes 79 individual functional markets grouped within three primary segments of "packaged" software(Heiman,2007): applications, application development and deployment (AD&D) software, and system infrastructure software. Objective of the taxonomy is to define software companies and markets that are relevant for market research purposes, notfor legal or accounting purposes nor simply for publishing historic lists.

Packaged software revenue typically includes fees for initial and continued right-to-use packaged software licenses. These fees may include, as part of the license contract, access to product support and/or other services that are inseparable from the right-to-use license fee structure. Also, this support may be priced separately. Upgrades may be included in the continuing right of use or may be priced separately.

Packaged software revenue excludesservice revenue derived from training, consulting, and systems integration that is separate (or unbundled) from the right-to-use license but does include the implicit value of software.

Increasingly, packaged software is also being marketed and deployed on a subscription and transaction basis, as well as via other arrangements, some of which do not involve a license. Software has also long been available for lease or rent, typically on mainframes. In the software classification, IDC have not been limited by accounting directives because this would neglect to count large segments of software markets in a way that accurately reflects market dynamics and future opportunity.

Software revenue of company competes in a packaged software market is defined in terms of two types of offerings from the viewpoint of the customer:

- The market for software code of a given functionality sold as such, typically via a perpetual license
- The market for software code bundled and marketed in another way (e.g., an application service) that competes with perpetually licensed software products.

According the classification of packaged software, software markets can be aggregated in: 1. primary software markets, 2. secondary software markets and 3. functional markets.

1. **Primary software markets** are the aggregation of the functional markets for applications, AD&D, and system infrastructure. The three primary markets together make up the worldwide software market.
2. **Secondary software markets** are 18 important aggregations that constitute IDC's packaged software market taxonomy(Heiman, 2007). These secondary markets are: consumer applications; collaborative applications; content applications; enterprise resource management (ERM) applications; supply chain management (SCM) applications; operations and manufacturing applications; engineering applications; customer relationship management (CRM) applications; information and data management software; application development software; quality and life-cycle tools; application deployment software; other development tools; data access, analysis and delivery software; system and network management software; security; storage software; and system software. These markets map into the three primary markets and collectively equate to the worldwide software market.
3. **Functional markets.** As we mentioned previously, IDC defines 79 individual functional markets for which it analyses revenue by vendor, geography, and operating environment. Functional markets also provide the foundation and revenue base for the generation of competitive markets.

### Main categories of software markets

We give a brief overview of three main categories of software markets: applications, AD&D, and system infrastructure software markets. The categories are decomposed on secondary and functional markets and together make up the worldwide software market.

**Application software.** Packaged application software includes consumer, commercial, industrial, and technical programs and codesets. These programs and codesets are designed for following purposes: to automate specific sets of business processes in an industry or business function, to make groups or individuals in organizations more productive, or to support entertainment, education, or data processing in personal activity. The packaged application market includes the consumer, collaboration, content, and enterprise applications

subsegments. The enterprise applications market, in turn, is made up of the enterprise resource management, supply chain management, operations and manufacturing, engineering, and CRM applications markets.

**The application development and deployment software.** The application development and deployment software supports building and exploitation of software products. Following types of software belong to this category: 1. information and data management software; 2. application development software; 3. quality and life-cycle tools; 4. application deployment software; 5. other development tools (other programmer development tools and utilities); 6. data access, analysis and delivery software.

1. Information and data management software includes products that manage a common set of defined data that is kept in one or more databases and is driven by data definitions and rules. Data can be organized in single database accessed directly by applications or in distributed databases accessed by multiple applications in multiple locations.

2. The application development software markets include software, tools, and development environments used by developers, business analysts, and other professionals to create both web-based and traditional applications. Third-generation languages (3GLs), unified development environments, modelling and analysis, business rules engines, and web site design and development tools are included.

3. Quality and life-cycle tools support the process of software development and deployment in providing quality of software products.

4. The application deployment software markets include software and tools used by developers, business analysts, and administrators to create, deploy, and manage web-based and traditional applications built on both legacy and modern architectures. Among modern architectures, the most popular are service oriented architectures (SOAs) and event-driven architectures (EDAs). There are six specific types of application deployment software: Application server software platform (ASSP), Integration server software platform (ISSP), Message-oriented middleware (MOM), Transaction server middleware (TSM), Industry-specific application deployment software and Application deployment adapters/connectors

5. The other programmer development tools and utilities market includes standalone edit, compile, and debug utilities; libraries; repositories; software reengineering and transformation tools; standalone GUI (Graphical User Interface) builders; report writers used mainly by developers; AI (Artificial Intelligence) and expert system builders; software development kits; code browsers; graphics toolkits and data/file conversion aids; and program memory and disk management. Additionally, this category includes remote procedure call (RPC) middleware, which is built for an application-to-application interoperability model. Applications make requests by shipping a direct call for the execution.

6. Data access, analysis, and delivery products are end-user oriented tools for ad hoc data access, analysis, and reporting as well as production reporting. Products in this category are most commonly used by information consumers or power users rather than by professional programmers. Examples include query, reporting, multidimensional analysis, and data mining and statistics tools. The data access, analysis, and delivery markets are defined in more detail in the following section.

**System infrastructure software.** System infrastructure software is divided into four primary categories: 1. system and network management software, 2. security software, 3. storage software, and 4. system software.

1. System and network management software is used to manage all the computing resources for the end-user, small business, workgroup, or enterprise, including systems, applications, and the network infrastructure.

2. The security software includes a wide range of technologies used to improve the security of computers, information systems, Internet communications, networks, and transactions. It is used for confidentiality, integrity, privacy, and assurance.

3. Storage software manages and assures the accessibility, availability, and performance of information stored on physical storage media. This category does not include operating systems or subsystems.

4. System software is the foundation of software products that collectively operate the hardware on which business applications are built. Following programs belong to system software: operating systems and subsystems, clustering and availability software, virtual user interface software and virtual machine software.

### III. CLASSIFICATION OF BUSINESS INTELLIGENCE SOFTWARE

#### Business intelligence software

As we could see, business intelligence is part of application development and deployment (AD&D) software category. More precisely, according to IDC's software taxonomy (Heiman, 2007), BI tools are part of the broader market called business analytics, which is depicted in figure 1.

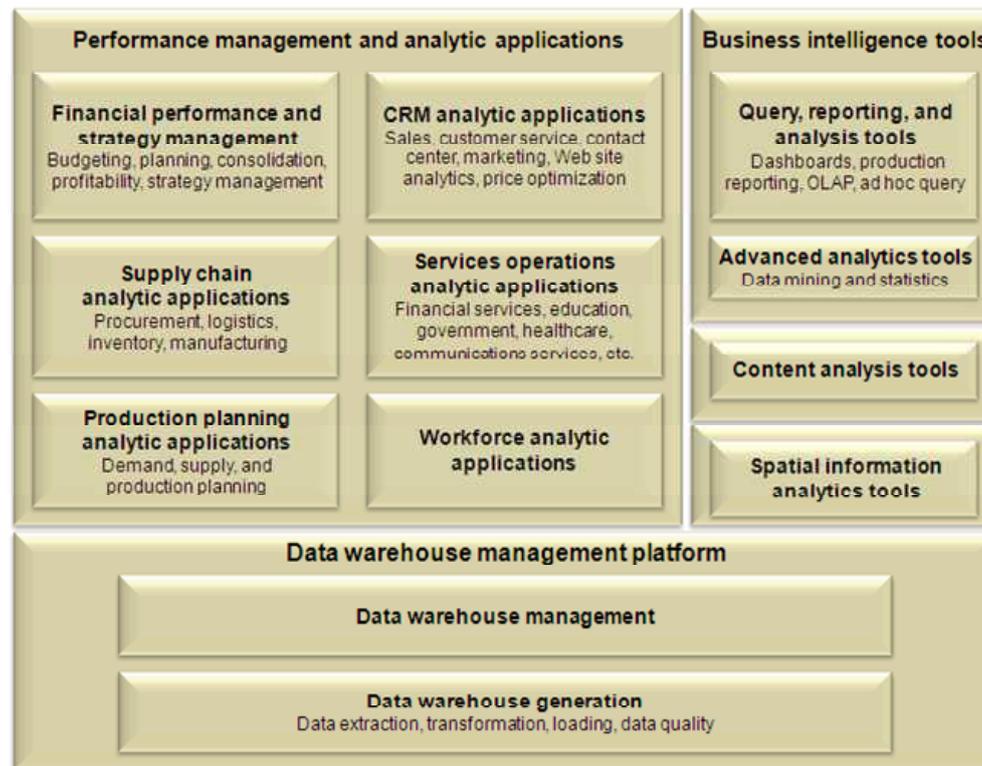


Fig. 1. Business intelligence tools as part of business analytics

Source: Vesset, 2011

The BI tools market includes both standalone packaged software and embedded BI tools provided by some database management software vendors. An example of the latter is Microsoft SQL Server Analysis Services that comes embedded in the SQL Server database. The BI tools market is made up of two market segments: 1. end-user query, reporting, and analysis (QRA) and 2. advanced analytics:

**1. End-user query, reporting, and analysis.** End-user query, reporting, and analysis software includes ad hoc query and multidimensional analysis tools as well as dashboards and production reporting tools. Query and reporting tools are designed specifically to support ad hoc data access and report building by either IT or business users. This category does not include other application development tools that may be used for building reports but are not specifically designed for that purpose. Multidimensional analysis tools include both online analytical processing (OLAP) servers and client-side analysis tools that provide a data management environment used for modelling business problems and analysing business data. Packaged data marts, which are preconfigured software combining data transformation, management, and access in a single package, usually with business models, are also included in this functional market. (Bhardwaj, 2013))

The following are representative vendors and products in this market: Business Objects (WebIntelligence and Crystal Reports), Cognos (ReportNet and PowerPlay), Hyperion Solutions (Essbase Analytics and Interactive Reporting), Microsoft (SQL Server Analysis and Reporting Services), Oracle (10q OLAP, Discoverer), SAP (NetWeaver BI, formerly Business Information Warehouse or BW).

**2. Advanced analytics.** Advanced analytics software includes data mining and statistical software. It uses technologies such as neural networks, rule induction, and clustering, among others, to discover relationships in data and make predictions. The relationships are hidden, not apparent, or too complex to be extracted using query, reporting, and multidimensional analysis software. This market also includes technical, econometric, and other mathematics-specific software that provide libraries of statistical algorithms and tests for analysing data (Vesset, 2011). Although statistics products vary in sophistication, most provide base-level functions such as frequencies, cross-tabulation, and chi-square. This market also includes a specialized form of statistical software focused on functional areas such as the industrial design of experiments, clinical trial testing, exploratory data analysis, and high-volume and real-time statistical analysis. The following are representative vendors and products in this market: IBM (Intelligent Miner), Insightful (S-PLUS), SAS (Enterprise Miner, SAS/STAT) and SPSS (Clementine, SPSS).

**BI software market forecast**

Many surveys of user organizations predict continual demand for BI software in the foreseeable future (Tavera Romero et al., 2021). The surveys suggest strong growth for the next five-year period. Business analytics remains one of the top priorities for the majority of organizations, and BI tools are one of the key enabling technologies for more pervasive business analytics. Expectations considering BI tools are:

1. The influence of the cloud computing model in the BI tools market is on simplicity and the increasing buying of business users. Customers will continue to demand software that is not only easy to use but also easy to acquire, install, and maintain. Specialty (including cloud) vendors will continue to offer feature of simplicity to purchase, deploy, use, and maintain BI tools. Larger vendors will be forced to respond, with the net result of a reduction in software deployment time and the ability to purchase software in smaller increments.

2. Business analytics appliances will evolve to incorporate database as well as user-facing BI tools. Business analytics appliances have until now been first and foremost packaged for data warehousing. The software components of these appliances have included RDBMS software optimized for the given hardware platform. We expect that in the near term, IT vendors will begin to extend business analytics appliances to include business user-facing query, reporting, and analysis tools as well as prepackaged analytic applications.

3. Demand for mobile BI tools will grow, but potential customers will demand designs to support specific use cases rather than just support for various devices. BI tools vendors are still learning about how best to design their products for mobile devices that are only one of many access channels to data. Mobile information solutions that provide more value than just the ability to track performance metrics or view, comment on, or edit a report need to find their way to market. Mobile BI will be driven by the need for mobile workers to participate in specific, collaborative business processes and ad hoc approval workflows for tactical decision making. (Abusweilem, Abualoush, 2019)

4. Pervasive predictive analytics will not materialize through wider use of standalone advanced analytics tools. Instead, advanced analytics functionality will be incorporated into applications. In order to implement advanced analytics, organizations need to source the quantitative analytic talent necessary to perform more complex analyses. The reality is that the number of quantitative analysts with enough know-how in analytic methods and tools is limited. This situation is going unlikely to change substantially in the foreseeable future. Therefore, more pervasive use of predictive analytics will not come through sales of more advanced analytics software tools. A more likely scenario is that both descriptive and predictive analytics functionalities will be incorporated into various analytic applications targeted at business decision makers and analysts.

5. Knowledge management, now referred to as collaborative and social decision making, will be based on supporting technologies including collaborative BI tools. The integration of social networking and social media capabilities into collaboration environments will help accelerate decision making. The collaboration environments support knowledge management via implicit knowledge capture which preserves contextual information about people, processes, and content. Social graphs, content rating, and recommendations are already improving implicit knowledge management at work. Network analysis techniques that have been foremost adopted in tracking social behaviour of consumers will begin to be applied to collaboration within the workplace. Gaining the input of many stakeholders to inform a decision while capturing the decision process for reuse is a best practice in leading organizations. (Du et al., 2013)

**IV. CLASSIFICATION OF ELECTRONIC COMMERCE SOFTWARE**

The increasing use of the Internet as a global network has enabled many organizations to conduct their business activities in an electronic and innovative way. Here, a special place is occupied by electronic commerce, where companies can carry out electronic purchase and sale transactions with each other, as well as with individual customers who have access to the website of the goods provider. (Mohdhar, Shaalan, 2021)

There are many products that are available to potential consumers and that can be purchased via the Internet. Among such products, one can find many items from different categories, such as clothing, footwear, computer equipment, sports equipment, etc. Unlike some that are sold directly through manufacturer websites, most products are sold through the websites of well-known online retail companies, for example Amazon. (Babenko et al., 2019)

The functioning of such a website requires software that can efficiently process sales transactions, display products in an attractive way and track information about the customers themselves, their preferences and specifics related to the purchases made. Here, we are primarily considering B2C e-commerce websites. For this reason, the emphasis will be on the types of software that online stores use when selling their products over the Internet, including software that enables the display of goods through an online catalogue, the functioning of a shopping cart, etc. In addition, the aim in next part of this paper is to present and explain the basic as well as the advanced functions of the software for B2C electronic commerce, some of which being the possibility of review in the form of online catalogues, the possibility to purchase online through the basket, integration with enterprise information systems, etc

### Functions and features of electronic commerce software

Electronic commerce as an innovative way of performing buying and selling activities electronically, i.e. through the Internet, has led to the fact that almost all companies, both large and small and medium-sized, create their own websites through which they offer their products to potential consumers. (Hashim et al., 2013) This is supported by the many benefits that electronic commerce brings to both companies and customers, which are reflected in the reduction of business costs, increased operational efficiency, increased business flexibility, etc. These benefits brought by electronic commerce are the main factors in the further growth of the number of users of this innovative way of selling and buying products. (Rahayu & Day, 2017)

On the other hand, in order for the organization to implement e-business as successfully as possible, it must first look at the characteristics and costs of designing and creating web pages, hardware and software, the costs of Internet access and the issue of security, and then it is necessary decide whether to use an external host or your own host for the e-commerce website. (Steinfeld et al., 2011)

In addition, the decision about which software will be implemented depends on the number of transactions carried out via the e-commerce site, i.e. whether a large number of transactions are carried out with thousands of inquiries in the catalogue every minute, or whether it is a small online store that offers a significantly smaller number of items within its assortment. As a final result, the entire e-commerce system contributes to both buyers and sellers improving their business efficiency by using adequate e-commerce software. (Palopoli et al., 2016) In the continuation of the work, the emphasis will be on explaining the basic and advanced functions of e-commerce software, as well as examples of software used in small, medium and large enterprises.

Electronic commerce software enables the performance of basic operations that are offered to consumers, such as review in the form of an online catalogue, processing transactions, the ability to purchase via an online shopping cart, etc. Namely, it is about the basic functions that e-commerce software provides to a certain organization that offers consumers a mostly small number of items through its website. In contrast, companies that offer a larger number of products to potential consumers use more complex e-commerce software that incorporates an additional set of components. Some of them include: enterprise application integration, middleware software, supply chain management software, software for integration with enterprise resource planning, customer relationship management software, etc. (Jabbar et al., 2019)

The role of software that provides the possibility of viewing in the form of an online catalogue is reflected in the most successful organization of the product offer by specific categories, which enables an easier search of the offered items, and provides more reliable information to customers. (Hashim et al., 2013) A smaller e-commerce site in terms of the number of products offered to potential customers may have a very simple static online catalogue that represents a list of products written in HTML displayed on the web page. When it comes to larger e-commerce sites, dynamic online catalogues are more often used. Unlike static catalogues, dynamic catalogues can contain multiple photos for each product and their detailed description. Software that includes and implements a dynamic catalogue is often included as part of a larger software package that enables electronic commerce. (Vuță et al., 2022)

The online shopping cart is now the standard method for handling the sales process for most e-commerce sites. The online shopping cart stores items selected by the customer and allows her/him to view its contents, add new products or remove products from the list of those they want to buy. In order for the customer to place an order for a specific product, it is enough just to click on that product. All details about that product, including its price, product code, and other identifying information are automatically stored in the online shopping cart. If the customer later changes her/his decision regarding the purchase of a particular product, she/he can simply see their content and remove the unwanted items on that occasion, using the appropriate option. When the customer is ready to make a purchase, he clicks a button to complete the purchase transaction.

One of the software that contains advanced features is database management software that makes it easy for users to access, add, update, and find information within a database. One of the common database management programs is Microsoft Access. More complex management systems that can manage larger databases and thus allow more functions to be performed at higher speeds include IBM DB2, Microsoft SQL Server, and Oracle. (Barenji, et al., 2019)

Large companies usually establish a connection between their e-commerce software and accounting databases and inventory information, or the interface between clients and servers, using middleware. Middleware is software that takes sales and shipment data from e-commerce software and transfers it to accounting and inventory management software, in a format that these systems can recognize. One of the leading providers of this software is IBM. (Wasko et al., 2011) Many B2B websites need to be able to connect to existing information systems, one of which is enterprise resource planning software, where these software packages integrate all aspects of the business, including accounting, logistics, production, marketing etc.

**Electronic commerce software for small and medium-sized enterprises**

In this part of paper, attention is directed to software that small and medium-sized enterprises can use when implementing web sites. In most cases, these companies can create a website that can be isolated from other business activities (primarily when it comes to promotional and sales activities) and should not be fully coordinated with activities related to procurement, human resources resources, etc. (Saeeda et al., 2020)

Using shared or dedicated hosting services of service providers instead of introducing in-house (internal) servers or using co-location services, means that the need for certain staff moves from user companies to companies that offer web hosting services, enabling individuals or organizations to make their website accessible to potential customers via the Internet. Commerce Service Providers (CSPs) have the same advantages as Internet Hosting Service Providers (ISPs), including spreading the costs of owning a large website over several user firms served by a host server. One of the biggest advantages, reflected in the low price, is the result of the fact that the host provider already has a configured server. (Chen et al., 2010)

CSPs offer free or low-cost e-commerce software that runs on the CSP server. The software is built on the CSP site platform, allowing companies to immediately start building and saving the initial dialog using the web interface software. These services are designed for small business systems that conduct their business online, where they sell a smaller number of products, with a relatively low volume of transactions. Because these companies offer different services, they could be called ISPs, CSPs, MSPs (Mall-Style service providers) or ASPs (Application Service Providers), depending on the service that users need. (Fedorko et al., 2018)

Mall-style CSPs provide smaller companies with Internet connectivity, website creation tools, and banner advertising. They also provide online store design tools, front page templates, easy to use interface and site maintenance. Mall-style CSPs also provide the ability to use online software as a shopping cart. These providers also provide payment processing services, so payments can be made via credit cards. (Abbad et al., 2018)

In the early days of the Internet, many mall-style CSPs offered their services, some even completely free, in exchange for displaying ads on their users' sites. Today, the main users of mall-style CSP solutions that are still in business are eBay online stores, where interested customers can open their online store through the eBay site. Another mall-style CSP option for starting an online business is selling through Amazon.com, which allows an individual to sell certain used products on the same website where Amazon.com offers new products. When it comes to accessing eBay's online stores, it is possible for each merchant offering a smaller volume of products to have their own separate online store that potential buyers can access through the same eBay site. Amazon.com allows merchants to display their product offering without distinguishing it from other products offered through the Amazon.com website. (Nathan et al., 2019)

In the continuation of the paper, emphasis will be placed on the explanation of mid-range e-commerce software packages that would be suitable for use in medium and larger enterprises.

**Electronic Commerce Software for Medium and Large Businesses**

In this section we are dealing with e-commerce software that medium and large businesses can use to sell their products. Here we also provide a brief overview of web site development tools that can be used for this purpose. These software packages integrate many functions with which it is possible to perform multiple operations simultaneously. In addition, these software packages allow users to control the appearance, the ability to adjust and arrange items and elements of the website itself, as well as the ability to connect to databases. Although they are more commonly used to create small business websites, it is possible to build the elements of a mid-range commerce website using website builder and management tools. (Yoo, B. et al., 2011).

After creating a website using development tools, the designer can also install software elements that will facilitate the purchase of products, so that it can be available for potential consumers to use an online shopping cart, software for managing its content, etc. The final step is the provision of middleware software that connects the site with the company's existing databases. (Bhardwaj, 2013)

Middleware as a intermediate software enables connection to databases that store information in the form of catalogues. The catalogue itself, which resides in the database, simplifies upgrades and changes. Mid-range e-commerce systems usually provide connectivity to the company's existing databases and information systems, where the most important is the inventory tracking system, due to online product ordering. This can lead to cost savings, as there is no need to run a duplicate inventory system, and development and operating costs are spread over several software systems. Three electronic commerce systems that are representatives of this entire category of software are: Intershop Enfinity, IBM's WebSphere Commerce Suite and Commerce Server developed by Microsoft Corporation.

## V. CONCLUSION

Main conclusion derived from BI software market trends is that demand for the applications will grow in next years. However, vendors of BI software need to adjust their packaging and pricing models to preference of end-users. End-users show demand for departmental and incremental projects and subscription pricing. Although the subscription pricing model still represents only a small portion of the BI tools market, SaaS or cloud BI offerings are growing faster than the rest of the market. The problem with this fragmented purchasing is the creation of isolated islands of information and a reversal trend considering data integration. Traditional role of IT departments have been to build and rebuild dashboards and other ad hoc end-user information access interfaces. However, to address the potential data integration problem, IT departments should be more focused on data management technology, including projects and ongoing programs for data integration, cleansing, security, system availability, and performance management. Vendors of BI tools offer collaborative features in their products, but the features are mainly superficial and include simply the sharing of reports or dashboards. Following features should be much more prevalent: adding annotations, ranking and rating information, online collaborative workspaces, and other similar features. The focus on simplicity may actually make things more complicated for vendors as simplicity is defined by each customer. Customers or BI tools users do not want to pay for something they don't intend to use, so vendors must give them more options for deployment, pricing, features, and functions.

On the other hand, an increasing number of companies use innovative technological solutions based on web technologies, which means that these companies that sell products through electronic commerce must differentiate their offer in relation to the competition. In this regard, it is necessary to build an adequate website, which will bring the product offer closer to potential consumers, in accordance with their specific requirements, in the best possible way and enable them to make a purchase without much effort. In order for such a website to be able to effectively display web pages and process sales transactions related to a large number of products, it is necessary to be supported by adequate software for electronic commerce.

Here you can see some of the advantages that e-commerce software provides, both for small, medium and large businesses, such as the ability to view products through an online catalogue, the ability to purchase through an online shopping cart, integration with existing databases, etc. These software packages also offer design tools for online stores, front page templates, banner advertising capabilities, payment processing services, product inventory management, discount command entry capabilities, etc.

Bearing in mind the increasingly sophisticated needs of buyers of various product categories and the aforementioned benefits provided by software packages for electronic commerce, it can be concluded that in the future there will be an increase in the offer of even more sophisticated systems for electronic commerce that will provide online companies with even more advanced functions.

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