

УДК 339.38

COMPOSABLE BUSINESS IN DIGITALTRANSFORMATION



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Abstracts. This article is devoted to the new trend in digital business and new types of activity, which has a name «composable business». Composable business essence explained in the article and described how this business works. Besides, the possible ways of a business modularization and reconfigurations presented in this article to satisfy the needs of the current situation and concrete customer requirements. Composable business realization go through the composable technologies and composable thinking to reach business benefits.

Key words: composable business, composable thinking, composability, modularity, autonomy, discovery, orchestration, enterprise architecture, principles of composability, agile business.

Introduction.

Gartner's experts determine composable business as follows – business that can be easily modularized and reconfigured to meet the needs of the current situation. This can be done through composable technologies, which allow different parts of the business to be connected and worked together. That will enable businesses to quickly adapt to changes in the market and respond more effectively to customer needs [1-3].

«Composable business is a natural acceleration of digital business that you live every day. It allows us to deliver the resilience and agility these interesting times demand» (Daryl Plummer – Distinguished VP Analyst, Gartner) [1]. In addition, specialists emphasis – composable business allows quickly adapt activity to market changes by assembling the right combination of applications and services for each situation. Composable business is primarily a mental concept and secondarily a technology. This change of order actually reflects the whole evolution in digital era [2-4]. Using composable technologies, businesses can create independent modules that can still work together when needed. That gives enterprises the flexibility they need to respond quickly to changing business conditions.

Research and discussion. Currently, composable business defined as *intelligent composable business* because it improves and transforms decision-making on the base of actual structured data by accessing on Big Data and Artificial intelligent methods of analysis. Intelligent composable business deals with the following activities: generate new business models; support autonomous operations; develop new products/services through prototyping and MVP; develop and support omnichannels system, use CX and EX as business assets. In a nearest future, it will become increasingly important to create agile and adaptive systems that can quickly respond to changing market conditions.

Definitions of composable business can be determined through the term «composability».

Composability – software design approach where individual components arranged, re-arranged, and discarded when need to use a no-code platform.

Business composability – technology under which businesses become more agile by replacing big quantity of applications and data with composable building blocks that are *modular*

and interchangeable. From this point of view, composability implies a *new operating model* that involve and affect *people and processes*. Therefore, organizations need to consider and make the decision about basic building blocks of a composable business [2-5]:

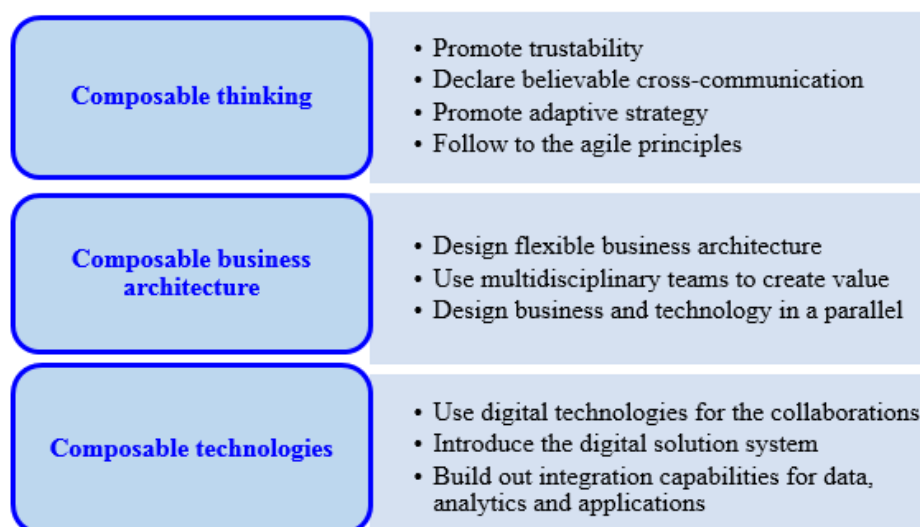
Composable thinking (People): focusing on adaptive strategy, flexible organizational structures, and planning cycles. Composable thinking determines the ability to think in modular terms and recognize the business as a collection of independent but interconnected parts and cycles. Composable thinking supports the flexibly – conduct quick changes due to market needs change. Main idea in realization of this block to define the concept – what to compose and when. Such approach practically changes business capabilities and market opportunity.

Composable business architecture (Processes): focusing on value-based processes, working with business capabilities, distributed accountability. Composable thinking does not work without a composable architecture, which represent the different business elements –capabilities, products, teams, processes, services, etc. Such approach dynamically evolves to create new value. *Engagement, technology, and capability* are three dimensions of composable business architecture, which support business growth and scalability.

Composable technologies (Technology): characterized by agile development methodologies (Lean Agile principles – SAFe framework), modular architecture, and distributed data processing. Composable thinking and architecture with the right technology assets and capabilities practically promote the usage of modular components and their reusability. Such approach supports automation in marketing in business.

Composable technologies – are the tools or software, that include *no-code* and traditional *BI platforms*, that enable businesses to modularize their operations and connect different parts of the business. Such approach improves agility and flexibility to enhance the Business-to-Business customer experience (CX).

Interaction blocks, teams, software and customers support the competitive advantages (picture 1).



Picture 1. Composability principles in action [2-5]

In order to introduce *new operating model on the base of composable business concept* need to do the followings:

–Prepare company to the introduction the composable architecture – assign champion and create agile centers of expertize and agile coaches with a mission to embed composability principles into enterprise system.

–Estimate an enterprise position (composability index) and describe the essence of composability principles.

–Specify the skills of employees, starting from methodologies (agile and scrum) until architecture (including microservices) and business expertize.

–Choose the platform that allows to connect enterprise core system, and that supports *integration strategy*, which based on the three composable pillars: thinking, architecture, technology.

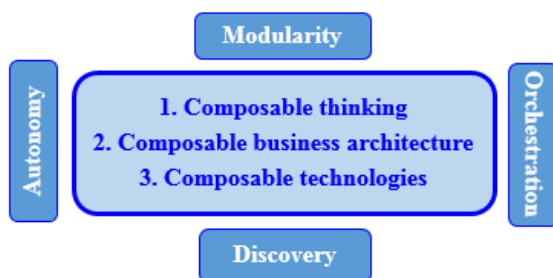
–Choose and implement building unit of business – *Packaged Business Capability (PBC)* (as a Lego bricks). Each PBC implements a business-relevant function – together they create a *digital solution*. PBCs defined as a combination of *microservices* that form independent business units. In this context, *microservices* are small, independent services that work together to reach business goals. A single PBC could provide a complete application implementation to end customers (it is usually a set of business capabilities – PBCs).

Practical realization of this concept based on a combination of such principles as: discovery, modularity, autonomy, orchestration (table 1) [2-6].

Table 1. Four Key Principles of Composability

Principles	Essence	Core meaning
Discovery	More speed through discovery	When you need to move quickly, you need to be able to discover the right combination of applications and services to fit your current needs.
Modularity	Greater agility through modularity	Modularity allows businesses to change and update parts of their applications without affecting the rest of the system. That makes it easier to respond to market or customer needs changes.
Orchestration	Better leadership through orchestration	Orchestration allows businesses to manage different parts of the business. This gives businesses greater control over their operations and helps them to respond more effectively to changes. Orchestration focuses on security components, API support workflow orchestration.
Autonomy	Resilience through autonomy	Autonomy allows businesses to continue operating even if one part of the system fails. That helps businesses to avoid disruptions and keep their operations running smoothly

Balanced combination of the compacibility principles around key blocks is a shortage way to transfer them into competitive advantages in digital economy (picture 2).



Picture 2. Design Principles of Composability (adapted) [3-5]

The value of composability for business could be explain through *business perspective and development perspective* [6].

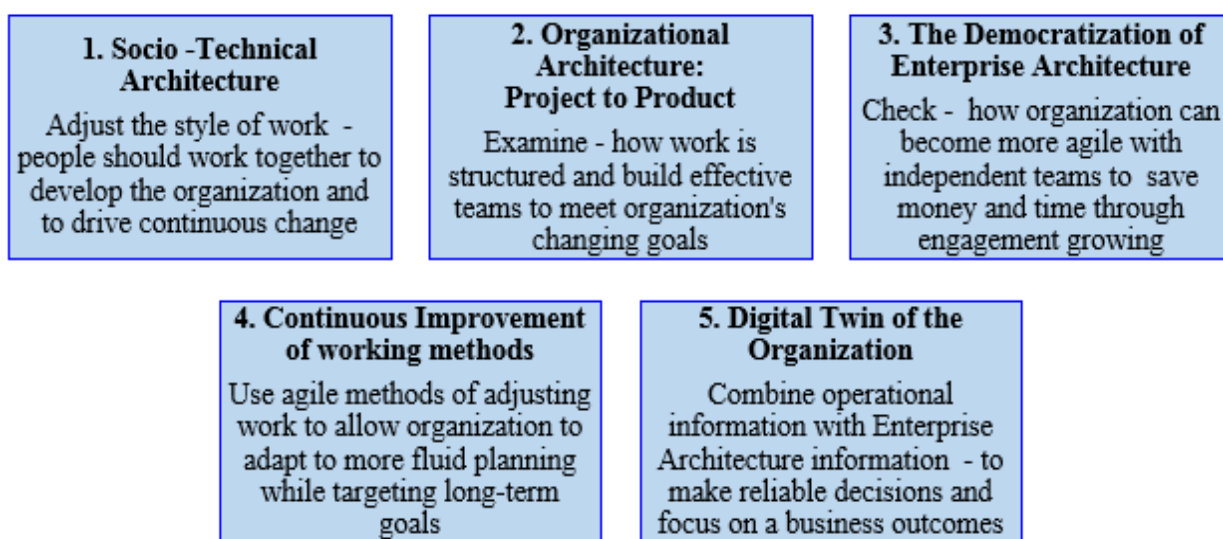
Business perspective – business composability gives organizations the agility to react and respond to market changes and adapt faster to the customer requirements [2]. The modular composition of applications allows for bridging the traditional gap between business and IT since both business and users can assist the tasks needed to assemble the experience to the «job to be done» (JTBD). Combination of applications and experiences allow going to market faster.

Development perspective – business composability increases developer productivity exponentially because developers start the projects with ready building blocks.

Benefits of business composability expressed as a followings:

1. Composability allows businesses to be more agile and responsive to change, which is essential in today’s fast world.
2. Composability allows businesses to become more efficient and resilient and to manage their operations better.
3. Composability makes it easier for businesses to connect different parts of their operation, improving productivity and communication.
4. Building blocks of application can be assembled quickly and easily, allowing organizations to get new products and services to market faster.
5. Composable systems are more reliable as faulty components can be replaced without affecting the entire system.
6. The right combination of assembled applications and services can optimize businesses operations and resources. This can help reduce costs and improve performance.
7. Composability destroys limitations of monolithic applications that do not support flexibility or customization.

Specialist in business declare that only CHANGE is certain in business environment today. So, need to investigate and follow to the enterprise architecture trends in order to align main business activities and initiatives with business transformation strategies. To understand the top strategic enterprise architecture trends – means to become more agile and deliver change and innovation faster, offer greater value to the market, and meet the organizational objectives (picture 3) [6-9].



Picture 3. Enterprise Architecture Trends (adapted)

Conclusions and recommendations.

A composable business model – is an acceleration model of the digital era. Designing business processes around this idea, forces businesses to be resilient and creates a culture of stability within digital environments. Very important to understand – how organizations apply new concepts into digital business execution. Intelligent composable business improves and even transforms decision-making on the base of actual structured data by accessing on Big Data and Artificial intelligent flexible method of analysis. Composable business will allow create *new business models*, support autonomous operations, develop new products, services, develop and support channels, use CX and EX as a business assets.

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КОМПОНУЕМЫЙ БИЗНЕС В УСЛОВИЯХ ЦИФРОВОЙ ТРАНСФОРМАЦИИ

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Аннотация. Данная статья посвящена новому тренду в цифровом бизнесе и различным видам активностей, которые названы компонуемым бизнесом. Определена сущность компонуемого бизнеса и описано, как этот бизнес работает. Кроме того, в статье представлены возможности перехода на модульность и реконфигурацию бизнеса с целью удовлетворения требований клиентов в условиях изменения текущей ситуации. Для достижения рыночных выгод компонуемый бизнес реализуется на базе компонуемых технологий и мышления, а также базируется на компонуемой бизнес-архитектуре.

Ключевые слова: компонуемый бизнес, компонуемое мышление, компонуемая бизнес- архитектура, компонуемость, модульность, автономность, оркестровка, принципы компонуемости, гибкий бизнес.