



**Graduate  
School of Management**  
St. Petersburg State University

# Business Models Visualizing: from Matrix to Mind Maps

**Artem Alsufyev  
Tatiana Gavrilova  
Anna-Sophia Yanson**

Graduate School of Management (GSOM)  
Saint-Petersburg State University  
E-mail: [alsufyev@gsom.pu.ru](mailto:alsufyev@gsom.pu.ru)

KIE conference, Riga, Latvia, July 24, 2014



# Outline

1. Main Idea
2. Research Question
3. Business Model Representations
4. Business Model Mind Map
5. Experiment
6. Results



# Main Idea

- new framework for visualizing business models:

*Canvas Business Model + Mind mapping = Canvas Business model map*

- as cognitive scaffolds
- positively associated with improved perception and understanding of the business model by managers



# Research Question:

“*Does business model (BM)  
mind map template really work?*”



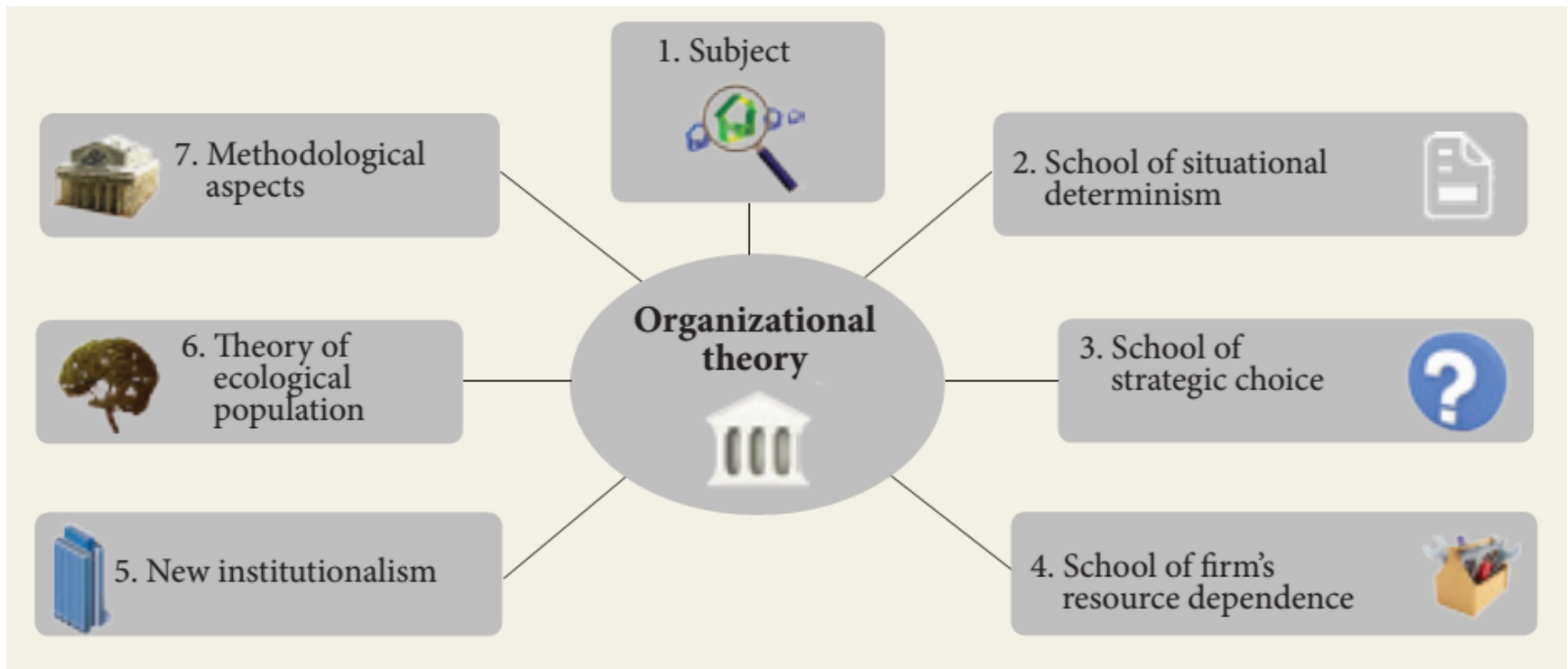
# BM representations:

1. Linear text
2. Canvas model developed by Alexander Osterwalder
3. Canvas map (Business Model mind map)



# Mind Map

- diagramming method that illustrates thoughts, concepts, relationships, associations, and consequences all connected to a central hub representing the main idea














# Benefits of MM:

- increases the **memory** and processing resources available to the users;
- reduces the **search** for information;
- uses visual representations to enhance the **detection of patterns**;
- enables perceptual inference operations;
- short-term memory capacity



# Canvas business model (by Alexander Osterwalder) for KFC Company:

Table 1. **Canvas business model for KFC**

<p><b>Key partners</b></p> <p>Pepsi, food suppliers</p> 	<p><b>Key activities</b></p>  <p>Management of a chain of fast food restaurants, logistics system, franchising, catering services</p> <p><b>Key resources</b></p>  <p>Brand, sales and logistics network, facilities to support the catering service</p>	<p><b>Value propositions</b></p> <p>Secret recipe, affordable prices, fast service</p> 	<p><b>Customer relationships</b></p>  <p>Focus on customers' needs: individual and standard contracts</p> <p><b>Channels</b></p>  <p>Fast food restaurant chain, home service, online stores</p>	<p><b>Customer segments</b></p> <p>Young people (16-25 years old), students, Early career workers, franchisees</p> 
<p><b>Cost structure</b></p> <p>Costs of the fast food restaurant chain, branding/communications, fleet of catering vehicles, food innovations</p> 	<p><b>Revenue streams</b></p> <p>Revenue from the fast food restaurants and catering service, franchising</p> 			

Source: prepared by the authors.





# Canvas business model (by Alexander Osterwalder) for KFC Company:

Table 1. Canvas business model for KFC

<b>Key partners</b> Pepsi, food suppliers	<b>Key activities</b> Management of a chain of fast food restaurants, logistics system, franchising, catering services	<b>Value propositions</b> Secret recipe, affordable prices, fast service	<b>Customer relationships</b> Focus on customers' needs: individual and standard contracts	<b>Customer segments</b> Young people (16-25 years old), students, Early career workers, franchisees
<b>Key resources</b> Brand, sales and logistics network, facilities to support the catering service	<b>Channels</b> Fast food restaurant chain, home service, online stores			
<b>Cost structure</b> Costs of the fast food restaurant chain, branding/communications, fleet of catering vehicles, food innovations	<b>Revenue streams</b> Revenue from the fast food restaurants and catering service, franchising			

Source: prepared by the authors.

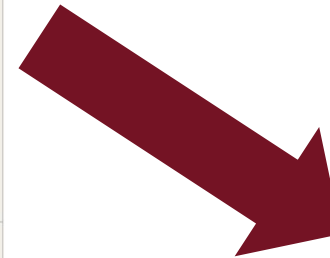
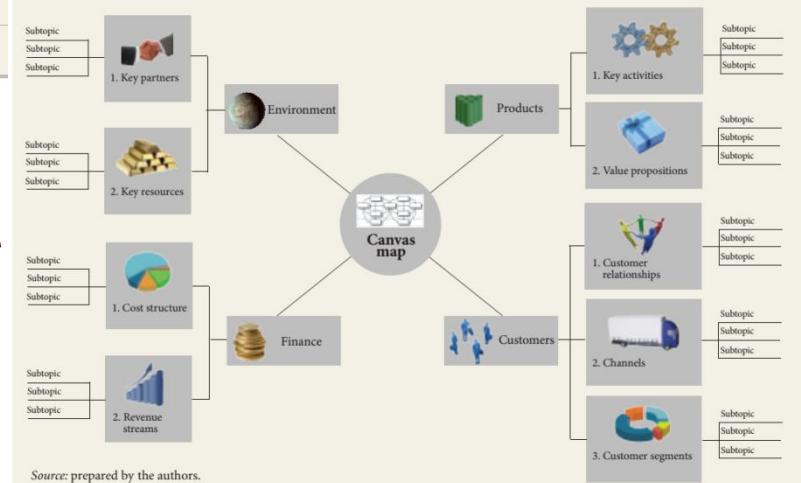


Figure 3. Business model canvas as a mind map



Source: prepared by the authors.

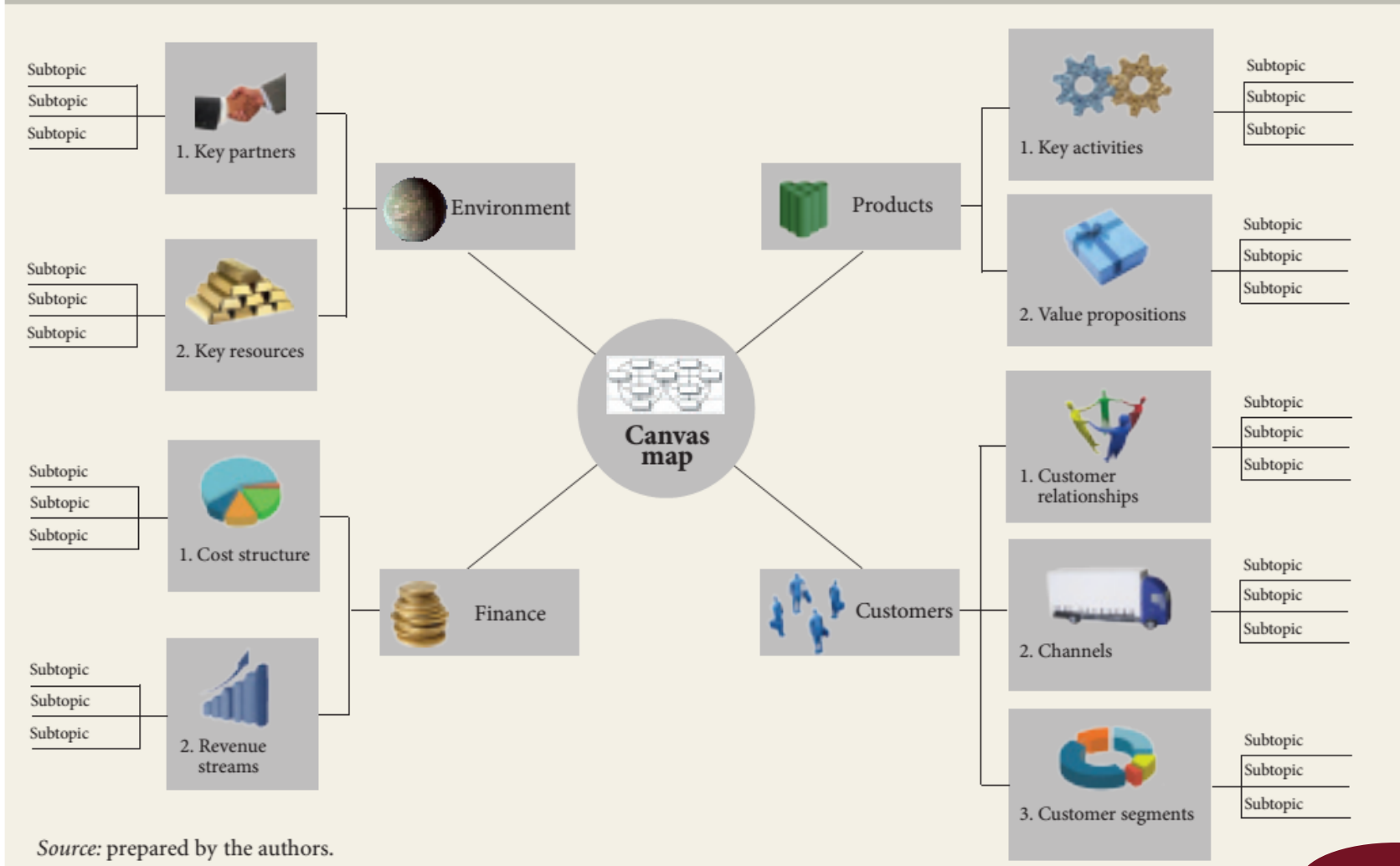
**9 blocks → 4 branches**

- Products
- Customers
- Finance
- Environment



# Canvas Business Model mind map

Figure 3. **Business model canvas as a mind map**



Source: prepared by the authors.



# Methodology:

- Experiment
- Sample of 22 managers of Russian companies
- Evaluation of perception
- Description of KFC company business model
- Questionnaire on the business model of KFC
- Evaluation by experts the correctness of answers
- 3 groups

No	Group	BM form	N
1	Group A	Text	6
2	Group B	Canvas	8
3	Group C	Map	8

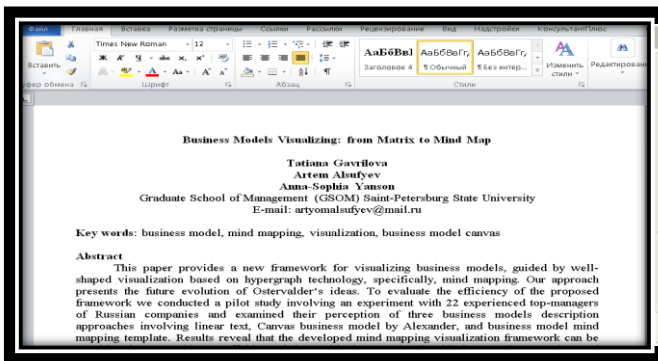
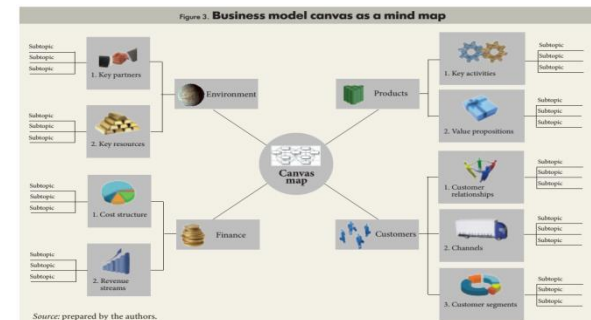


Table 1. **Canvas business model for KFC**

<b>Key partners</b> Pepsi, food suppliers	<b>Key activities</b> Management of a chain of fast food restaurants, logistics system, franchising, catering services	<b>Value propositions</b> Secret recipe, affordable prices, fast service	<b>Customer relationships</b> Focus on customers' needs: individual and standard contracts	<b>Customer segments</b> Young people (16-25 years old), students, Early career workers, franchisees
	<b>Key resources</b> Brand, sales and logistics network, facilities to support the catering service		<b>Channels</b> Fast food restaurant chain, home service, online stores	
<b>Cost structure</b> Costs of the fast food restaurant chain, branding/communications, fleet of catering vehicles, food innovations		<b>Revenue streams</b> Revenue from the fast food restaurants and catering service, franchising		

Source: prepared by the authors.



# Text

Traditional

Easy to use

# Canvas

Wide-spread

Table

# Map

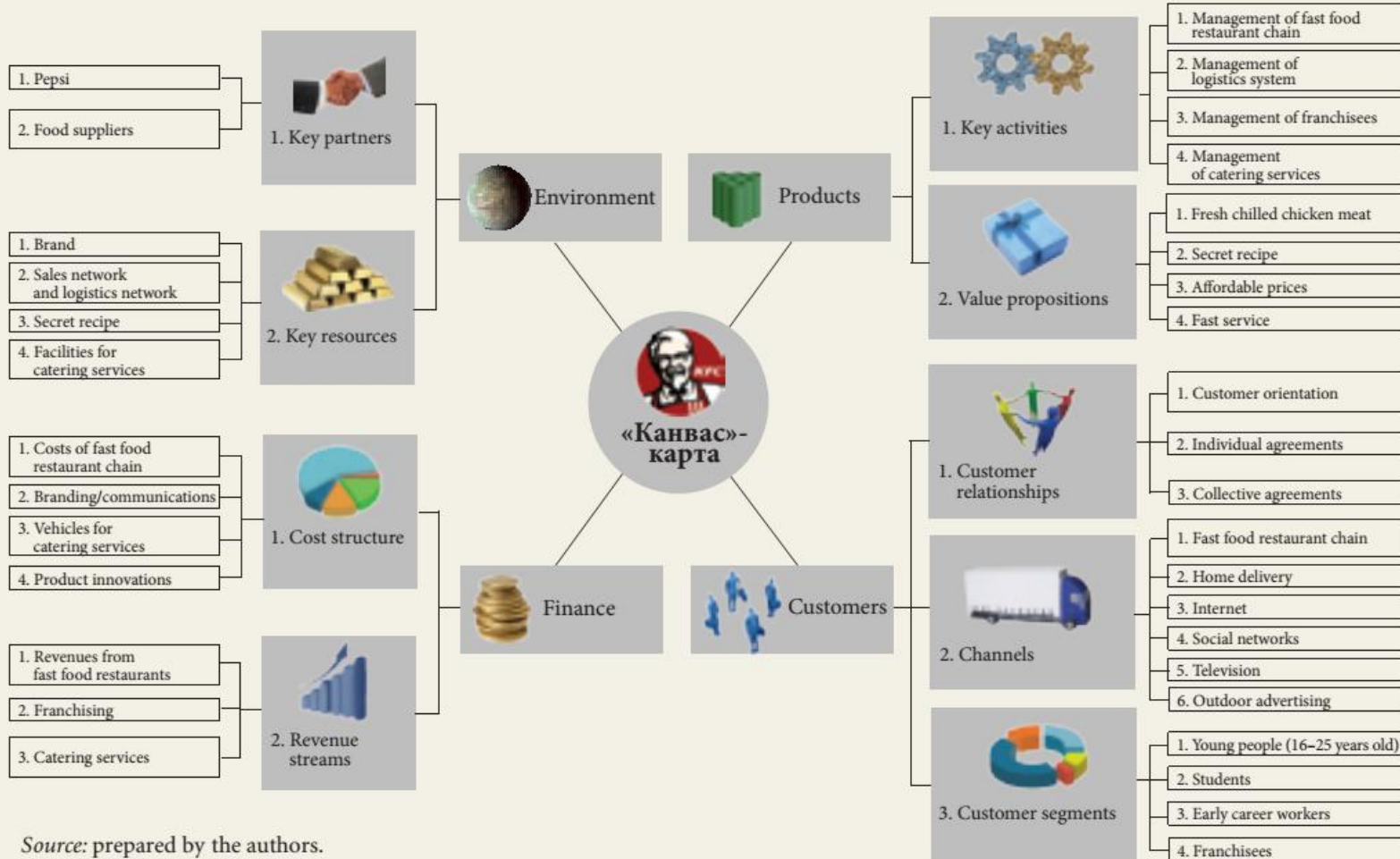
Developed by authors

Visualization



# Business Model mind map KFC Company

Figure 4. Canvas map for KFC



Source: prepared by the authors.



# Questionnaire answer forms

Чем занимается компания?	- Быстрое питание - Франчайзинг - Кейтеринг
Кто основные потребители?	- Молодежь - Наемные работники - Служба
В чем специфика основных потребителей?	- Наемные работники - Служба - МСБ
В чем основное преимущество продукции компании?	- 42% от - Кейтеринг
Из чего складывается доход компании?	- Склад - Комиссия -

Чем занимается компания?	Производство продуктов питания предоставляя франшизу компания
Кто основные потребители?	Молодежь - студенты, люди интересующие карьерой- франшизы.
В чем специфика основных потребителей?	Молодость
В чем основное преимущество продукции компании?	Не высокая цена
Из чего складывается доход компании?	Доход от "бизнес-оборудования" доход от ресторанов быстрого питания Франчайзинг

Чем занимается компания?	рестораны быстрого питания кейтеринг франшиза
Кто основные потребители?	молодежь, студенты
В чем специфика основных потребителей?	молодые люди неб. ур. дохода
В чем основное преимущество продукции компании?	ответы от: ну, много редкий секретный компонент салаты, авторские для кейтеринга франшизы на территории рестораны быстрого питания рху доходы от кейтеринга доходы от франшизы



# Analysis of variance: Results

		Sum of Squares	df	Mean Square	F	Sig.
Question 1	Between groups	8,218	2	4,109	5,318	0,015
Question 2	Between groups	12,632	2	6,316	8,583	0,002
Question 3	Between groups	5,076	2	2,538	4,578	0,024
Question 4	Between groups	6,305	2	3,153	4,209	0,031
Question 5	Between groups	5,752	2	2,876	3,586	0,048

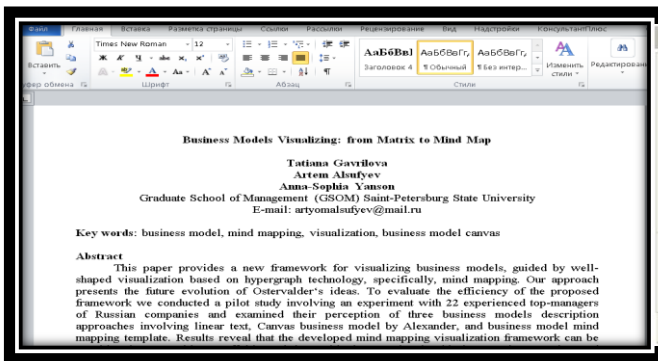
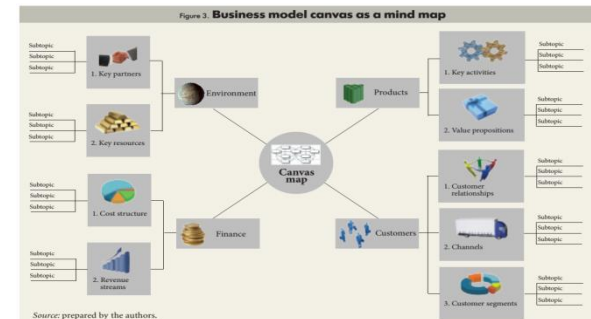


Table 1. Canvas business model for KFC

<b>Key partners</b> Pepsi, food suppliers	<b>Key activities</b> Management of a chain of fast food restaurants, logistics system, franchising, catering services	<b>Value propositions</b> Secret recipe, affordable prices, fast service	<b>Customer relationships</b> Focus on customers' needs: individual and standard contracts	<b>Customer segments</b> Young people (16-25 years old), students, Early career workers, franchisees
<b>Key resources</b> Brand, sales and logistics network, facilities to support the catering service	<b>Channels</b> Fast food restaurant chain, home service, online stores	<b>Cost structure</b> Costs of the fast food restaurant chain, branding/communications, fleet of catering vehicles, food innovations	<b>Revenue streams</b> Revenue from the fast food restaurants and catering service, franchising	

Source: prepared by the authors.



# Text

Difficult to perceive

NO visual support

# Canvas

Too many elements

Placement of elements logic issue

# Map

Most structured

Most comprehensive





# Conclusion:

The results of our pilot study indicate that using of a novel visual form of business model:

1. is positively assessed by management practitioners;
2. visualization framework works as as cognitive *scaffolds to better business thinking*
3. is positively associated with improved perception and understanding of the business model by managers
4. allows managers to communicate, share and manipulate business model knowledge easily



**Graduate  
School of Management**

St. Petersburg State University

# Thank you!



**Business Models Visualizing: from Matrix to Mind Maps**

**Artem Alsufyev  
Tatiana Gavrilova  
Anna-Sophia Yanson**

Graduate School of Management (GSOM)  
Saint-Petersburg State University  
E-mail: [alsufyev@gsom.pu.ru](mailto:alsufyev@gsom.pu.ru)