

# FLOWER SHOP ON THE ROMANIAN INTERNET SPACE

## FLORĂRII VIRTUALE ÎN SPAȚIUL ROMÂNESC

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**Abstract:** *This paper presents a prototype of a flower shop in the context of being a part of B2C electronic businesses. By an statistic analysis of the data we have obtained from a questionnaire, one can prove that virtual flower shop could be important on the Romanian online market.*

**Rezumat.** *Articolul prezinta modul în care apariția și dezvoltarea rețelei Internet a determinat modificări semnificative în cadrul florăriilor în contextul în care acestea ar putea fi considerate parte integrantă a afacerilor electronice de tip B2C. Articolul demonstrează printr-o analiza a datelor obținute pe baza unui chestionar importanța florăriilor virtuale pe piața on-line românească.*

Late 80's and early 90's [2][3][4] were marked by important modifications in the political, economical and social fields, in Romania but also in the entire world. At that time in Romania, the Internet network makes its appearance in the university domain, being used with the object of research and particularly of communication between people from all over the country and also from all over the world. In Romania, in the last few years, it was noticeable that Internet has become as important and common as the telephone, both for the natural persons and the legal persons. In this context, at this time, as well as in the future, a person or a firm that doesn't have a website will become anonymous, no matter the field of activity.

In the horticulture field, it is important to extend its activities, as much as their nature allows it, in the virtual environment of Romania. Following, we will present a theoretical and practical prototype of a virtual business, of the B2C type, whose activity is the commercialization of flowers.

### THE DESCRIPTION OF THE THEORETICAL PROTOTYPE FOR THE VIRTUAL FLOWER SHOP

The virtual business that we propose in this article is a virtual flower shop. The activity object of this virtual flower shop is the commercialization of flowers and their distribution to various clients' addresses. From our point of view, this kind of business can generate large incomes, due to the fact that there are many Romanian people living in other countries who will find our virtual flower shop as the perfect opportunity to send flowers to the dear persons living in Romania. Foreign persons and Romanian customers are also good candidates for buying flowers from our shop, by accessing the web pages with the object of making an order. Behind this virtual shop there is a physical one, which has distribution cars in charge with the assessment of commands to the addresses specified by the clients.

In the elaborating process of the virtual flower shop's theoretical model we identify the actions that will unfold in the virtual application: The administration of the

commercialized products through the virtual shop; The administration of the online clients and the commands' execution in real time; The establishment of a relation between the administrator and clients, through asynchronous communication instruments; There will be created instruments to allow the clients not only to see the commercialized products, but also to obtain pieces of information about the products, in order to compare them; Clients will have the possibility to add each ordered product in their shopping basket and to pay at the end. As well as is any other physical shop, the products are grouped into categories, in order to be found more easily; The customers are provided with a search engine, with the purpose of cutting off the time to locate a certain product in the virtual shop; Other facilities provided to the customers: the creation of users' accounts, the possibility to visualize the state of their order at any time, the proposal of the day, the latest products at promotional prices and the description of the delivery methods.

## **THE PROJECT AND THE IMPLEMENTATION OF THE VIRTUAL FLOWER SHOP**

Following, based on the theoretical model of the virtual flower shop presented earlier, we will briefly describe the way this shop was projected and implemented, using the PHP scripting language. The first step in implementing a virtual flower shop was the creation of a database using MySql Front. This database contains the following tables:

*Table 1*

<b>Products</b>								
pid	pnume	ppret	pimg	pcateg	pdesc	pdesco	pstare	pofera
AutoNumber	text	currency	text	text	memo	memo	number	Number

*Table 2*

<b>Clients</b>						
C_id	c_user	ct_pass	c_email	c_str	c_oras	c_tara
AutoNumber	Text	text	text	text	text	text
	c_codpost	c_nrcard	c_tipcard	dexpcard	email	nume
	number	number	text	Date/time	number	text

*Table 3*

<b>Shopping Basket</b>			
cos_i d	cos_ clientID	cos_pr odusID	cos_c antitate
Auto Number	Num ber	Numb er	Numb er

*Table 4*

<b>Purchase</b>					
Cump_id	Cump_prodid	Cump_cantitate	Cump_clientid	Cump_stare	datacumparari
AutoNumber	Number	number	number	number	timestamp

The next step was to create the administration section of the virtual flower shop, corresponding to the theoretical model described earlier. In this section, after the authentication, a page which allows the administration of the products will appear on the screen, as shown in Figure1:

## Lista produselor din baza de date

<a href="#">Narcise.</a>	<a href="#">Sterge</a>
<a href="#">Petunia Surfinia</a>	<a href="#">Sterge</a>
<a href="#">Cala Lilies</a>	<a href="#">Sterge</a>
<a href="#">Fresia Amarilla</a>	<a href="#">Sterge</a>
<a href="#">Lobelia Erinus Pendula</a>	<a href="#">Sterge</a>

[Adaugă Produse](#)

[Clienti](#)

**Fig. 1** The products' administration page

By clicking on one product from the list above, a new page will be launched and it will allow modifying information regarding a certain product. To delete one product from the same page, it is sufficient to click on the link "Sterge" situated right next to the product's name. In order to add a new product, the click on the link "Adaugare Produse" (from the page presented in Figure 1) will open a new page containing a form, which needs to be filled.

In order to access the pages concerning the administration of the clients, a click on the link "Clienti" (from the page presented in the Figure 1) is needed and as a result a new page shown in Figure 2 will appear. This new page allows seeing information on clients, the clients' orders and the processing of these orders, by clicking on the link "Comanda client", the emission of the invoice by accessing the link corresponding to this action from the current page. In the administration section there are also pages that contain asynchronous communication instruments with the clients of the virtual flower shop.

Lista clientilor				
Client nume	Client e-mail	Client adresa	Vizualizare comanda client	Factura Fiscala
		Tara;Oras;Str:	<a href="#">Comandă Client</a>	<a href="#">Factura fiscalao</a> <a href="#">Factura fiscalac</a>
<a href="#">Florena Pop</a>	<a href="#">florea@yahoo.com</a>	<a href="#">Tara:RO;Oras:Brasov;Str:Bucium</a>	<a href="#">Comandă Client</a>	<a href="#">Factura fiscalao</a> <a href="#">Factura fiscalac</a>
<a href="#">Mitica Pop</a>	<a href="#">maria@yahoo.com</a>	<a href="#">Tara:FR;Oras:Vaslui;Str:Narciselor</a>	<a href="#">Comandă Client</a>	<a href="#">Factura fiscalao</a> <a href="#">Factura fiscalac</a>
<a href="#">Adrian Ioanescu</a>	<a href="#">adriana@yahoo.com</a>	<a href="#">Tara:Hu;Oras:Dej;Str:Predeal</a>	<a href="#">Comandă Client</a>	<a href="#">Factura fiscalao</a> <a href="#">Factura fiscalac</a>
<a href="#">Adriana Popovici</a>	<a href="#">adrian@yahoo.com</a>	<a href="#">Tara:Au;Oras:Lugoj;Str:Predeal</a>	<a href="#">Comandă Client</a>	<a href="#">Factura fiscalao</a> <a href="#">Factura fiscalac</a>
<a href="#">Previous</a>   <a href="#">Pagina 1</a>   <a href="#">Pagina 2</a>   <a href="#">Pagina 3</a>   <a href="#">Pagina 4</a>   <a href="#">Pagina 5</a>   <a href="#">Pagina 6</a>   <a href="#">Pagina 7</a>   <a href="#">Pagina 8</a>   <a href="#">Pagina 9</a>   <a href="#">Pagina 10</a>   <a href="#">Pagina 11</a>   <a href="#">Next</a>				

**Fig. 2** The clients' administration page



**Fig. 3** The shop's main page

By launching the virtual flower shop in the browser, a new page will appear on the screen as the one shown in Figure 3, where there are presented the products commercialized by the shop.

From this page, the clients that have authenticated themselves can choose a product and put it into the shopping basket, which is shown in Figure 4. On the page dedicated to the shopping basket a client can delete selected orders, modify the quantities for a certain product and perform the payment.

Coș de cumpărături liana :		
Produs	Preț	Cantitate
Cala_Lilies	345	1 <input type="checkbox"/> Stergere
Lobelia_Erinus_Pendula	6789	1 <input type="checkbox"/> Stergere
Prețul total:		7134
<input type="button" value="Modificare Coș"/> <input type="button" value="Stergere Prod"/> <input type="button" value="Plata Produselor"/> <input type="button" value="Continuare cumpărări"/>		

**Fig. 4** The shopping basket

The source code corresponding to the creation of the shopping basket, written using PHP language is:

```
<?// the take over of the product's id
$produsID=$pid;// Adding a product to the shopping basket
if ($produsID!="")
{$sql="SELECT cos_id FROM cos WHERE cos_clientID=".$client_id." AND
cos_produsID=".$produsID;
$nr_lini_tabel=mysql_query($sql);
while($row=mysql_fetch_array($nr_lini_tabel)){ $cos_id=$row['cos_id'];}
if ((mysql_num_rows($nr_lini_tabel))==0) { $cant=1;
$sqlString="INSERT INTO cos (cos_clientID,cos_produsID,cos_cantitate) VALUES ('".$client_id."',
'".$produsID."', ".$cant.""); mysql_query($sqlString); }
else
{ $sqlString="UPDATE cos SET cos_cantitate=cos_cantitate+1 WHERE cos_id=".$cos_id;
mysql_query($sqlString);} //Updating the quantity of the products
if (($modificarecant!="")or ($stergereproddincos!=""))
{$sql="SELECT cos_produsID,cos_id, cos_cantitate FROM cos WHERE cos_clientID=".$client_id;
$nr_lini_tabel=mysql_query($sql);
while($row=mysql_fetch_array($nr_lini_tabel))
{ $nouacantitate=${'pq'.'$row['cos_id']};echo $nouacantitate; if (is_Numeric( $nouacantitate )) {
$sqlString="UPDATE cos SET cos_cantitate=".$nouacantitate ." WHERE cos_id=".$row['cos_id'];
mysql_query($sqlString); } $pqs=${'pqs'.'$row['cos_id']};
if ((($nouacantitate==0)and (is_Numeric($nouacantitate)))or($pqs=="1"))
{ $str="delete from Cos where cos_id=".$row['cos_id']; mysql_query($str); }
if (!is_Numeric($nouacantitate)) {$sqlString="UPDATE cos SET cos_cantitate=cos_cantitate-1
WHERE cos_id=".$row['cos_id']; mysql_query($sqlString); } } }?>
```

In this virtual flower shop, there are pages that offer to the clients the possibility to register to the database, to search products and to communicate with various persons. We considered that the business that we proposed in this article can be successful only if the clients of the online flower shop are satisfied, therefore we created a set of questions. Following, we will describe the way we used this set of questions and we will work on the statistics of the results [12][6].

### THE STATISTIC METHOD AND DATA PROCESSING

Based on the questionnaire, we initiated a study for 70 persons, both male and female, with ages between 18 and 40 years old. These persons had to answer the question: "Is the action of buying flowers using the virtual flower shop a better one from all the points of view (information, price, quality and time) than the action of buying from a common shop?" The persons who took part at this study answered not only before getting in contact with this virtual flower shop, but also after the first order. The null hypothesis is that there is no significant difference between the answers before and after the first online order. The alternative hypothesis is that there is a significant diff. between the answers:

#### Step1. The table of contingency

	First interrogation		Total
Second interrogation	Yes	No	
Yes	30	13	43
No	12	15	27
Total	42	28	70

The previous table was created based on the following principle: a number  $N > 30$  [13][5] answers one question with Yes or No twice, before and after having ordered from the virtual flower shop presented in this article. By this action, we test if the ratio of the answers YES and/or NO from the first interrogation is significantly different from the second one.

#### Step2. The table of contingency created based on the table from Step1.

	First interrogation		Total
Second interrogation	YES	NO	
YES	25,8	17,20	43
NO	16,2	10,8	27
TOTAL	42	28	70

#### Step3.

$\alpha$	0,05
df	1
Hi-square critical	3,841459149
p-value	0,035280986
Hi-square observed	4,431523284
Sensibility	0,555555556
Specificity	0,54

We need to specify that  $p\text{-value} < 0.05$ , which means that the test is significant (fact also shown by the results of sensibility and specificity), but the value of  $p$  does not influence the acceptance or the rejection of the null hypothesis, this being made by comparing the values of  $\chi^2$  observed and  $\chi^2$  critical.  $\chi^2_{\text{critical}} \leq \chi^2_{\text{observed}}$  [12][5] observed rejects the null hypothesis and accepts the alternative hypothesis, meaning that there is a significant difference between the answers from before and after the first acquisition on-line from the virtual flower shop. As a conclusion, in order to increase the number of persons who buy on-line we need to convince them by various methods to make the first transaction on-line, so they be able to see the advantages of this new way of buying products. The result of such effort will be favourable for both on-line customers and on-line sellers.

## CONCLUSIONS

This article contains not only the theoretical steps, but also the practical ones for conceiving the project and the creation of a prototype for a flower shop, which works in the Romanian virtual environment and not only. In our opinion, the success of the virtual flower shops depends on their continuous adaptation to the market's demands. There is also important that they offer better and handier services than the classic flower shops.

We consider that the development of the B2C business, particularly of the virtual flower shops and not only, will have a decisive role in changing the old mentalities of the Romanian society and in accepting the fact that, at this time, this solution is the most effective and cheap way of interaction between buyer and seller.

In the future researches, we propose ourselves to offer solutions in order to involve the Internet network in the horticulture field, because we consider that this instrument will become indispensable in the near future.

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