

Tesauro, Carlo; Campisi, D.

Conference Paper

WWW. Euro: The Telematic Information Supply of Commercial Banks to the European Citizens

39th Congress of the European Regional Science Association: "Regional Cohesion and Competitiveness in 21st Century Europe", August 23 - 27, 1999, Dublin, Ireland

Provided in Cooperation with:

European Regional Science Association (ERSA)

Suggested Citation: Tesauro, Carlo; Campisi, D. (1999) : WWW. Euro: The Telematic Information Supply of Commercial Banks to the European Citizens, 39th Congress of the European Regional Science Association: "Regional Cohesion and Competitiveness in 21st Century Europe", August 23 - 27, 1999, Dublin, Ireland, European Regional Science Association (ERSA), Louvain-la-Neuve

This Version is available at:

<https://hdl.handle.net/10419/114432>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

WWW.EURO: THE TELEMATIC INFORMATION SUPPLY OF COMMERCIAL BANKS TO THE EUROPEAN CITIZENS

by

C. Tesauro ⁽¹⁾, D. Campisi ⁽²⁾

(1) Istituto di Pianificazione e Gestione del Territorio, C.N.R.

Via P. Castellino 111, 80131 NAPOLI.

Phone: (+39) -081-5607317 Fax (+39) -081-5607328 E-mail: tesauro@ipiget.na.cnr.it

(2) Dipart. di Informatica, Sistemi e Produzione - Università di Roma "Tor Vergata"

Via di Tor Vergata 110, 00133 ROMA.

Phone: (+39) -06-72597314 Fax (+39) -06-72597314 E-mail: campisi@disp.uniroma2.it

Abstract

The debut of the new European currency certainly creates new opportunities to the citizens of the eleven involved countries. The best way to reduce the associated troubles is strictly connected to the amount of information easily available. Internet represents the most innovative and powerful medium of our age, even if its usage and diffusion actually cannot compete with other media. Nevertheless, it represents the best way to supply to citizens all the needed complex information, characterised by a nesting/inheriting structure.

Following a qualitative schema, already tested to investigate the main usage of Internet potentialities, in this paper we verify the amount and the quality of information supplied via the virtual environment by the main actors of this historical event: the commercial banks.

The goal is pursued searching for the Internet sites of the commercial banks of the eleven directly involved countries. Moreover, the sites of other European and non-European ambits are also investigated to analyse the behaviour of connected financial structures.

Keywords

Internet
Euro
Services
Banks

Paper presented at

39th Congress of the European Regional Science Association

Dublin, Ireland, August 23 - 27, 1999

1. Introduction

The radical transformations within the forms of human organisation require rather long times for their realisation, not only for the necessity of continuous refinement of the objectives to pursue, but also to allow the involved citizens an adaptation to the new reality limiting the effects that could be reached from this change.

The European integration, that surely represents one of the most meaningful examples of transformation that involves the human organisation during last times, has moved it's first footsteps, due to the foresight of some political exponents of the beginning of this century, without having, at least in a first phase, any specific definition of the objectives that they were intended to pursue.

What had exclusively been conceived on the basis of political and humanistic principles, was totally transformed substituting the concepts and the fundamental elements with the process of globalisation. The technological innovation was the main cause of such trial and, as the matter of fact, the European integration is perceived today just as the better answer to the necessities, induced from the competitiveness increase within the markets and produced by the internationalisation process.

Nevertheless, this way of progressive approach to the wide transformations involves an inconstant course of the activated trials, continuously alternating among phases of sudden acceleration (for instance the demolition of the customs barriers and frontiers among the different states) and phases of smooth adaptation to the achieved results (integration and homogeneity of the national regulations). The event linked to the coming into force of the European currency surely represents a most sudden acceleration phase of the trial, since it involves the principal, basical element of the exchange process.

The transition among the different evolutionary phases of a similar trial has to be characterised by continuity and progressivity, to avoid the exceeding of possible obstacles that could derive from a different approach.

This means that the different subjects, involved by this transformation process, are called to make a strong effort to cope a reality that changes with a rhythm and an

intensity largely superior to the past, being them single citizens or large organisations. This is due to the involved elements that include also those daily provision components, traditionally perceived as so much stable to become the fixed reference point to which refer back to recover an idea of stability, during the transformation processes of former epochs.

The introduction of the new European currency represents only the most evident part, the economic one, of this gigantic transformation process inside which it was started, and it is tightly connected to a series of other components that strongly characterise the actual historical phase, such as the effects of the technological innovations and the transformations of the socio-political ambits that, even if originated in the continental environment, have however effects that influence more directly the whole world.

In a scenery characterised by such a dynamics, the answer to a single problem that didn't keep track of the general environmental situation risks to become obsolete in the same moment in which it is supplied.

For this reason the use of a communication mean, as powerful and innovative as Internet is, represents the better way to supply the necessary but complex information to the citizens. These information are characterised by an intrinsic structure, formed by inherited and/or nested components, although its use and its diffusion cannot compete with those obtained by other media.

Therefore, the aim of this job is to verify the quantity and the quality of the information supplied, inside the virtual environment, by those that seems to be the main actors of this period: the commercial banks. Such an objective is pursued seeking the Internet sites, both of the commercial banks of the eleven countries directly involved and of the other European and extra-European environments, to analyse the behaviour of those financial structures that have to care about the effects deriving from this event.

The paper is organised as follows. In the second paragraph used methodology is illustrated, that represents an evolution mainly focused on quantitative aspects in comparison to that formerly introduced (Tesauro, Campisi 1998). In the third paragraph the criteria to determine the sample of study and its constitutive elements are

introduced. The fourth paragraph contains the results got by the effected simulations, while the fifth paragraph is devoted to the conclusive considerations and the developments of the present job.

2. The evaluation schema

The evaluation concept for the components included in a strongly innovative context, as the case of Internet can be considered until today, appears as notably complicated due to the lack of specific methodological and operational references. This happens not only for the extreme volatility of the subject studied, that is defined as “virtual environment” not by chance, but also for it’s particular characteristic: the continuous and exasperated evolutionary dynamics that implies a constant updating and refinement of those entities that compose it.

Therefore, the choice of the referencing elements to realise an evaluation process becomes entirely arbitrary, although some considerations of objective practical validity can be helpful in such a case. So the consideration of elements used in analogous approaches, finalised to the evaluation of similar phenomena could represent an effective guideline. In the case of the virtual ambit, it is also necessary to consider that both any analytical scheme proposed and any got result must be considered limited to an extremely brief temporal arc.

In (Tesauro, Campisi 1998), was proposed a generic evaluation schema to characterise the information and the services supplied in Internet by an heterogeneous set of providers. That schema was generated by mean of a simple translation of some evaluating criteria, used in similar environments, in a sort of “virtual fashion”. A selection criterion for the analysing sample was joined to that schema, to keep track of the general purposes of the study and to obtain a reliable referring basis.

The constitutive elements of the evaluation schema chosen still seems to be sufficiently selective, although the results of the empirical relief quickly extend to conform and to level out toward the most elevated values. Besides new analytical elements have been introduced that considers also the specific aspects of the particular houses. Finally, a further attempt to introduce new quantitative factors in the criteria of

evaluation is presented also, although such operation still results difficult due to the particularity of some of the considered elements.

The evaluation schema chosen for the Internet sites follows some of the criteria and the economic concepts that have to be considered in their virtual meaning: logistics, competitiveness, quality and image. These elements will be appraised keeping track of the specific characterisations that each of them assumes inside the virtual world. Therefore, for every site seven factors have been considered and subsequently described, that have been appraised with as many qualitative parameters (null; poor; sufficient; good; optimal; excellent) easily convertible in numerical values to be able to express then a general synthetic evaluation for each site.

2.1 Logistic

The evaluation of the location will mainly be connected to the accessibility of the site, that is expressed in terms of two conclusive factors: the availability of the network address and the answer time to the access of the service.

The first element depends on the availability of ipertextual or automatic references, sets in varied notable points of the virtual world to access the searched service. The most appropriate contexts to facilitate the access of the consumers are represented by the search engines and the Internet pages of the competing and/or complementary suppliers of services. This evaluation is still enough simple to effect, since it is connected to a limited number of verifications. Particularly, the search of the references activated by information suppliers different by the search engines is simplified by the “reciprocity” fashion, that is the mutual activation of references inside the respective web pages, for which all it takes is observing the existence and the number of such references to external ambits inside the site to appraise.

Viceversa, the answering time of each site to the application of access is an element whose variability depends on innumerable factors, as the operational speed of the consumer and/or of the supplier of the service, the general traffic conditions on the network, etc. To such purpose, to be able to effect an evaluation that was the more possible totally released by aleatory influence factors, the access tests have been conducted on Sunday morning, because it was reasonable to suppose that the traffic on

the European and North American networks (for which was late night) was notably reduced. Besides, such access tests are conducted via a posting directly connected to the network, whose performance limit is represented by the course of an ethernet cable, that is also notably superior to the potentialities of the fastest actual modems.

Particularly, the address availability is appraised as excellent the site whose references are: publicised in net, present on both the search engines and all the pages of connected sites logically (complementary or competing); optimal if not publicised; good if not connected with the competitors sites; sufficient if even not connected with the complementary ones; poor if it foresees only on national searching systems or on limited course; null for those sites reachable only via references obtained differently with respect to the sources of the virtual world.

The evaluation of the access times to the sites was considered in terms of the normal canons of the "real time" answers, by means of a temporal rank varying from 30" (excellent) thin to over 3' (poor), reserving the null value for the accesses denied for absence of the specified address or for functionality of the operational server missed.

2.2 Competitiveness

The competitiveness evaluation of the Internet site for every firm is fundamentally tied to the quantity of information furnished by every subject.

The completeness of the furnished information, that besides constitutes also a fundamental element for the component related to the image, absolutely represents a subjective element of evaluation. Nevertheless, some objective elements can supply a reference to follow for getting reasonable evaluations as, for instance, a comparison with the available information through other communication means (newspapers, radio, television). A useful quantitative factor in terms of evaluation for this specific component can be represented by the total dimension of the available lines in the site, although such parameter would not keep track of the real insight of the pages.

In this specific case, the element completeness has been appraised both in general terms and in particular way for the specific information on the European Monetary Union and the matters related to it. Particularly, it was assigned an excellent value to the sites

that further to be endowed with a complete documentation on the European theme and on all the connected matters, and also contain tools of values conversion. The optimal indication has been assigned to the sites that had the completeness of the information without being endowed with on-line European calculators or they had an exhaustive documentation but the tools of conversion made available. The inferior values have, finally, been attributed for more limited levels in comparison to the quantity of furnished information.

2.3 Quality

The characterisation element chosen for appraising the quality of the virtual pages is primarily tied to the use of the graphic supports and the images.

The quality of graphic elements presents in the site absolutely constitute a further element of subjective evaluation criterion. Also in this case, however, there are objective enabling reference elements to concern for furnishing reasonable evaluations, they are for instance appraised legibility, (in terms of select contrast level for the chromatic relationship between background and text) and the incidence on the loading times of the pages (dimension in Kbytes and quantity of the inserted elements in comparison to the total lines dimension). Particularly, the sites that have currently taken care of the general aspect following the preferred fashion in the virtual world and used volumes that determine a good text dimensional relationship in comparison to the some defined standards (Nabe, Hideo Miyahara, 1998) were evaluated as excellent, while inferior evaluations was been attributed for those realisations that took less care about esthetical and/or data transfer matters.

2.4 Image

The “Business Image” always represents a particularly meaningful matter inside the organisations and was seen as expressed by the site Internet in terms of the dialogue availability with respect to the customer. In this case, exceeding those “completeness”-related elements, two new characteristic elements have been introduced for the evaluation, that is the presence of multi-lingual versions (essential for the non-English sites) and the facility of personalised contact via the electronic mail.

The availability of the information in more languages has been appraised excellent for the sites with more than four different versions that understand at least an oriental language (usually Japanese), optimal those in four languages, good the sites in three languages, sufficient those Anglo-Saxon or with at least the English version, poor the sites that use the only not - English original language.

Finally, the personalization of the e-mail references for further contacting forms (applications for personalised specific information) is appraised in terms of the quantity of the different informative elements presents. The availability to furnish a reference for electronic mail that also point out the generalities of the respective holder (personalization of the informative communication) for every informative element present inside the site is appraised excellent. Viceversa, optimal is the evaluation for a subdivision of the personalised references but not for all the informative typologies, good for a non-complete series of contacts, sufficient if only one address is used for further information, poor if the reference exists only to the “webmaster” for “notes on the web pages.”

3. The study sample

The main component of the study sample is represented by the sites of the greatest commercial banks in each of the fifteen Countries of the European Community, selected through the business managed volume in 1998. The use of this one as only selection criterion has made impossible due to the notable existing disparity among the business volumes of the most important banks in comparison to the smaller ones. Since the realities of different Countries, whose banks managed volumes excessively reduced, result excluded in the sample. This is the reason why a ranking of the five commercial banks for each Country is used, considering the largest business movement (Bloomberg, 1999), obtaining 75 evaluation elements. In Tab. 1 (a, b) the names of the commercial banks used to build the sample are presented. The data set is organised by Countries and shows the business volume and the capital stock for each commercial bank.

		ACTIVITY (Bil. of Euro)	CAPITAL (Bil. of Euro)
AUSTRIA			
	BANK AUSTRIA	113.711	5,181
	CREDITANSTALT	55.636	3,321
	ERSTE BANK DER OESTER SPARK	49.844	2,133
	OESTERREICH POSTSPARKASS	19.738	0,506
	OESTERREICH VOLKSBANKEN	11.031	0,262
BELGIUM			
	KBC BANCASSURANCE HOLDING	103.313	19,329
	DEXIA BELGIUM	101.217	5,331
	CAISSE HYPO ANVERSA	7.244	0,405
	BANQUE COMMERCIAL DU CONGO	77	0,041
DENMARK			
	DEN DANSKE BANK	79.757	6,317
	KAPITAL HOLDING	72.064	5,455
	UNIDANMARK	51.084	2,247
	JYSKE BANK	10.348	3,048
	SYDBANK	6.403	0,661
FRANCE			
	SOCIETE GENERALE	375.243	17,056
	BANQUE NATIONALE DE PARIS	310.214	28,678
	DEXIA FRANCE	87.316	5,475
	CREDIT COMMERCIAL DE FRANCE	60.813	15,863
	CAISSE NATL CREDIT AGRICOLE	38.391	6,183
GERMANY			
	DEUTSCHE BANK	624.452	25,935
	DRESDNER BANK	345.315	19,210
	COMMERZBANK	321.607	14,886
	BAYERISCHE HYPO VEREINSB	224.391	20,222
	DEPFA DEUTSCHE PFANDBRIEFBAN	103.347	3,022
IRELAND			
	BANK OF IRELAND	50.322	10,057
	ALLIED IRISH BANKS	47.776	13,817
	IRISH PERMANENT	7.718	1,317
	ANGLO IRISH BANK CORP	4.380	0,754
	IFG GROUP	31	0,403
ITALIA			
	SAN PAOLO IMI	132.583	20,093
	BANCA COMMERCIALE ITALIANA	112.856	13,063
	BANCA DI ROMA	107.205	7,753
	UNICREDITO ITALIANO	91.395	23,337
	BANCA NAZIONALE DEL LAVORO	86.686	7,412
LUXEMBURG			
	BANQUE INTL LUXEMBURG	27.196	2,030
	ESPIRITO SANTO FINL GROUP	25.646	0,671
	SAFRA REPUBLIC HOLDINGS	20.356	2,815
	KREDIETBANK SA LUXEMBURG	17.708	2,216

Tab. 1(a): The sample: The top five banks, selected by activity, in each European country (first half).

Source: Bloomberg (1999).

		ACTIVITY (Bil. of Euro)	CAPITAL (Bil. of Euro)
NETHERLANDS			
	ABN AMBRO HOLDING	379.560	28,895
	ING GROUP	281.527	50,842
	NATL INVESTERINGSBANK	10.665	1,653
	KAS ASSOCIATE CVA	4.357	0,176
	VA DER MOOLEN HOLDINGS	715	0,682
PORTUGAL			
	BANCO COMMERCIAL MACAU	104.998	3,063
	BANCO PINTO & SOTTO MAYOR	26.672	3,027
	BANCO ESPIRITO SANTO	21.114	3,063
	BANCO PORTUGUES DO ATLANTICO	19.550	1,921
	BANCO TOTTA & ACORES	17.257	0,857
SPAIN			
	BANCO SANTANDER	154.961	23,414
	BANCO BILBAO VIZCAYA	133.845	29,303
	BANCO CENTRAL HISPANO AMERICANO	82.008	16,167
	ARGENTARIA	69.855	10,821
	CORP BANCARIA DE ESPANA	69.855	10,320
FINLAND			
	LEONIA	21.066	0,000
	OKOBANK	8.929	0,000
	MERITA	2.086	4,313
	ALANDSBANKEN	859	0,000
	SIJOITUS FORESTIA	11	0,000
GREAT BRITAIN			
	HONK KONG & SHANGAI BANK	286.391	88,017
	BARCLAYS PLC	219.494	42,918
	NATIONAL WESTMINSTER BANK	185.993	37,949
	ABBAY NATIONAL BANK	177.779	28,590
	LLOYDS TSB GROUP PLC	167.997	79,855
GREECE			
	NATIONAL BANK OF GREECE	78.960	9,081
	BANK OF GREECE	72.600	0,542
	COMMERCIAL BANK OF GREECE	33.480	4,039
	ALPHA CREDIT BANK	21.060	6,405
	IONIAN BANK	13.380	1,710
SWEEDEN			
	SVENSKA HANDELSBANKEN	97.626	8,166
	SKANDINAVISKA ENSKILDA	80.905	7,051
	FORENINGSSPARBANKEN	80.819	7,991
	STADSHYPOTEK	36.060	7,346
	NORDBANKEN	3.315	7,107

Tab. 1(b): The sample: The top five banks, selected by activity, in each European country (second half).

Source: Bloomberg (1999).

		ACTIVITY (Bil. of Euro)	CAPITAL (Bil. of Euro)
UNITED STATES			
	CITIGROUP	688.700	172,103
	BANKERS TRUST	137.108	10,100
	PNC BANC CORP	74.373	18,495
	UNION BANK OF CALIFORNIA	33.244	6,081
JAPAN			
	BANK OF TOKYO- MITSUBISHI	111.388	70,621
	SUMITOMO BANK	77.880	42,889
	DAI- ICHI KANGYO BANK	69.735	22,042
	SANWA BANK	69.092	33,151
	FUJI BANK	66.942	23,452
SWITZERLAND			
	UBS	639.079	68,540
	CREDIT SUISSE	466.378	53,139
	BANK FUER INTL	125.238	0,0721
	SCHWEIZERISH NATIONALNAMK	63.109	0,618
	JULIS BEAR HOLDING	10.395	6,798
OTHERS			
	BANKWEST (Australia)		
	United Overseas (Singapore)		
	SHANGAI COMMERCIAL (China)		

Tab. 2: The sample: The top five banks, selected by activity, in main extra European Union areas.

Source: Bloomberg (1999).

Another element to be considered in the definition of the study sample is represented by the appearance of the first meaningful effect on the organisational orders of the great banking groups. In fact, in many European Countries fusion and/or acquisition processes of notable importance are activated that are substantially modifying the general scenario of the financial activities with a subsequent numerical reduction and dimensional growth of the main actors.

Since the effects deriving from the introduction of the European currency in the international monetary markets are not exclusively found within the union, but influence also the financial markets of the whole world, it also important to introduce in the sample

some elements which represent European but extra-community realities (Switzerland for instance, that surely represents a territorial ambit of absolute importance on the specific theme), north-Americans and Asian. The choice of these further elements will be effected according to the criteria already used for the community component of the sample.

4. The empirical evidence

The organisation and management formalities of the Internet pages presenting the different selected organisations appear sensitively different, according to the origin Countries of each of them, although typically influenced by a common “virtual” component. In fact, in the presentation formality of each considered site some cultural influences, typical of the origin Country, are perceived in rather clean way, although the presence of the component that derives from “virtual culture” curtain to grow weak its most evident effects. For this reason, the observed results in the community ambit will be introduced for single Country, while those related to the extra-community environments will be gathered for geographical areas.

Although with small negligible differences, some elements of the general formulation substantially exist homogeneous in the whole champion of study. In fact, the components related to the more specific techniques, as the availability (sufficient) and the answer time (optimal), besides the availability more linguistic versions (sufficient) are managed entirely in analogous way in all the sites.

Particularly, the good answer time experimented clearly points out the use of sophisticated calculation and communication systems, as an usual level in banking, while the strictly sufficient level of availability points out a renouncement to the increase of the attraction and visibility power that represents one of the main characteristics of the virtual world. The generalised presence of pages in English language, finally shows as this language is generally approved as official language of Internet by now.

The actual incompleteness of the selected champion is, finally, tied to the absence of the relative sites in Internet. This represents an evaluation criterion that can be useful for a general scenario discussion and is not considered in the result evaluation.

In Tab. 3 (a and b) the empirical results obtained are presented. For reading convenience N stands for “null”, P for “poor”, S for “sufficient”, G for “good”, O for “optimal” and E for “excellent”.

COUNTRY / SITE	ACC ESS	ANS W. TIME	LAN GUA GES	COM PLET .	GRA PHIC S	CON TAC TS	EUR O	MEA N
AUSTRIA								
Bank Austria	S	G	P	O	O	G	O	G
Creditanstalt	S	O	S	O	O	G	E	G
Oesterreich Postsparkass	S	O	P	E	G	P	P	S
Oesterreich Volksbanken	S	O	P	E	E	S	O	G
BELGIUM								
KBC Bankassurance	S	E	O	S	G	S	S	S
Dexia Belgium	S	O	O	G	S	S	P	S
DENMARK								
Den Danske Bank	S	G	S	O	E	P	P	S
Unibank	S	O	S	O	O	P	O	G
Jyske Bank	S	O	S	E	O	E	O	G
Sydbank	S	O	P	S	G	S	P	S
FINLAND								
Leonia	S	O	S	G	G	P	S	S
Merita	G	O	S	S	G	S	O	S
Alandsbanken	S	O	S	S	G	S	E	S
FRANCE								
Societe Generale	S	O	S	G	O	S	E	G
Banque National	S	O	S	G	E	P	E	G
Credit Commercial	S	O	S	S	O	E	E	G
GERMANY								
Deutsche Bank	S	O	S	G	O	O	S	G
Dresdner Bank	S	O	S	E	E	S	S	G
Commerzbank	S	O	S	O	O	G	O	G
Hypo Vereinsbank	S	O	P	O	S	P	O	S
IRELAND								
Bank of Ireland	S	G	S	E	E	G	O	G
Allied Irish Banks	S	O	S	O	G	S	O	G
ITALIA								
San Paolo Imi	S	O	P	O	G	P	O	S
Comit	S	O	S	G	G	G	G	S
Banca di Roma	G	O	P	G	S	P	O	S
UniCredito	G	E	S	E	E	P	E	G
Banca Nazionale del Lavoro	S	O	P	O	G	P	P	S
LUXEMBURG								
Banque Generale*	S	O	S	O	O	S	E	G
Banque IPPA*	S	O	O	S	S	S	S	S

Banque e Caisse d'Epargne*	S	O	G	O	O	S	E	G
----------------------------	---	---	---	---	---	---	---	---

Tab. 3a: The empirical results observed.

(P = poor, S = sufficient, G = good, O = optimal, E = excellent).

* Not in Bloomberg ranking

COUNTRY / SITE	ACC ESS	ANS W. TIME	LAN GUA GES	COM PLET .	GRA PHIC S	CON TAC TS	EUR O	MEA N
NETHERLANDS								
ABN Amro	S	O	S	E	O	P	O	G
ING Group	S	O	S	O	G	S	G	S
PORTUGAL								
Espirito Santo	S	O	S	O	O	G	O	G
Portugues do Atlantico	S	O	P	E	O	P	O	G
SPAIN								
Santander	P	O	G	O	E	G	E	G
Bilbao Vizcaya	S	O	S	G	S	P	O	S
Central Hispano	S	O	S	O	O	P	S	S
Argentaria	S	O	P	O	G	P	P	S
GREAT BRITAIN								
HongKong & Shangai Bank	S	O	S	E	E	P	G	G
Barcalays	S	O	S	O	O	P	O	G
Abbey National	S	O	S	E	O	G	O	G
Lloyds	S	G	S	O	G	G	P	S
GREECE								
National Bank of Geece	S	O	S	E	O	P	G	G
SWEEDEN								
Handelsbanken	S	O	S	O	S	S	S	S
Skandinavinska Enskilda	S	O	S	G	O	S	P	S
Foreningssparbanken	S	O	S	G	O	G	P	S
Stadshypotek	S	O	P	O	G	G	P	S
Nordbanken	S	O	P	S	O	P	P	S
SWITZERLAND								
U.B.S.	G	E	O	E	O	O	E	E
Credit Suisse	G	E	O	E	E	G	E	E
Juli Bear Holding	G	E	G	E	O	O	G	G
UNITED STATES								
Citigroup	G	O	S	O	E	P	E	G
Bankers Trust	G	O	S	G	O	E	S	G
PNC Bank Corp.	G	O	S	G	E	G	N	G
JAPAN								
Bank of Tokyo Mitsubishi	G	O	S	G	O	S	N	G
Sumitomo Bank	G	O	S	S	O	P	N	S
Dai-Ichi Kangyo	G	O	S	G	O	P	N	S
Fuji Bank	G	O	S	S	G	P	N	S
OTHER COUNTRIES								
Bankwest	G	O	S	E	O	S	N	G
U.O.B.	G	O	S	E	O	S	N	G
Shanghai Commmerc.	G	O	S	E	O	S	N	G

Tab. 3b: The empirical results observed.

(P = poor, S = sufficient, G = good, O = optimal, E = excellent).

4.1 Euro area

The available Internet pages of Austrian banks seem of good level, although with a wide result variance especially for Euro-related arguments. The completeness of information supplied to customers is remarkable.

Viceversa, in Belgium only two sites were found, with a sufficient general presentation. The information about Euro appears negligible, while the accuracy about languages is optimal.

The analysed four sites of Danish banks show a notable care of all the specific components, with some exceptions related to poor availability to personalised contacts and Euro topics.

Three references were available for Finland, driving to strictly sufficient sites characterized by good graphical development and a reduced usage of English language, used only for general-purpose information.

The pages introduced from the French banks substantially show a homogeneous behaviour, that underlines an excellent availability of information on the unique currency, also completed by small useful services as the on-line automatic converter, a good care of the aspects related to the image and a good attention to the completeness of the furnished information. In this case it is to underline the notable availability of versions in English language for all the present pages, above all if it is considered that the originality and the linguistic autonomy in the Country are institutionally enacted by specific laws. Viceversa the management of personalised contacts is a little emphasised, with a single exception, really incredible in the Country in which the habit to the use of telematic tools for similar purposes is largely diffused, due to the decennial presence of the Minitel.

The Internet sites of the German banks have shown a rather heterogeneous attention to the different components used by the analytical schema. The completeness of the furnished information, the graphic quality and the availability to the management of direct contacts vary from a site to the other in sensorial ways, while it is appearing constants the evaluation level of the components for each entity. This means that the

appointment devoted for every components substantially varies in operation for a specific address less than a choice of general politics. The information on the specific European matter substantially appear limited to the least necessary for a correct financial approach to the problem, without a particular emphasis both for the general politics that have conducted to its birth or for the collateral effects that can be found in parallel environments.

The evaluation of Internet pages of the Irish banks slightly results more complex than the others, since in a case a differentiation of contents exists among the site devoted to the Republic and the site devoted to the Ulster. In the first case there is a behaviour similar to the other community countries with rather elevated qualitative values, while in the second case the realisation of the site has assumed an English style. Only two references was found.

The organisation of the Italian banking sites broadly appears heterogeneous. A common evaluation exists only in the case of the answer times and the poor availability to direct contacts, with an unique exception. Such variability, besides the elements of completeness, graphic and European quality, influence also those components valued as equivalent in the other cases, since cases of great availability or total absence of multi-lingual versions are identified.

The case of Luxembourg represents a total particularity in this study, since none of the banks of the selected sample results available via Internet. Nevertheless, a search inside the net allowed to individualise some banks that introduces sites completely different from those of the other community countries. In fact, the multi-lingual management of these sites is notably wider, up to the case of a site in four different languages, and excellent the attention is also devoted to the European matter. These characteristics make such useful pages for an wide band of use, with a considerable return of image and, probably, of business.

In the sample related to the Netherlands one of the elements used in (Tesauro, Campisi 1998) is present. In this case, therefore, it is possible to underline both the good standard reached for all the constitutive aspects of the sites and the positive evolution of the former examined element. The notable evolution of the re-examined site, in only one

year, always confirms the great attention devoted both to the expansion and to the completion of the services furnished via Internet.

The valued sample for Portugal has currently only two references addressed toward sites well developed in all of their components.

The Spanish banks devoted an extremely varied attention to the definition of the virtual spaces and their single specific aspects, for which a homogeneous reading of the found evidences results complex, both by the way of characteristics and of single organisation. The completeness of the furnished information (optimal) seems to be the only common element among the different examined sites.

4.2 Not Euro Community Countries

The banks of the Great Britain, even if not directly involved in the first footstep of the European currency, devote a notable attention to the direct and indirect effects that can derive from this event, with a behaviour of the sites that appears notably elevated with respect to the standard, even if not always totally available to a detailed communication through the electronic mail.

The evaluated sample for Greece currently has only one reference, that is addressed toward a site with an excellent quantity of information, good use of the graphics, good description of the elements related to the European matter and poor attention to the direct communication.

The Sweedish banks have some common approaches to Internet with a standard final result: sufficient. The Euro is largely neglected and the availability to the wider marked ensured by the usage of different languages too. Viceversa, a very detailed information about costs and rates is supplied to the Sweedish “cruiser”.

4.3 Extra Community Countries

The first reference outside the European Community area is addressed to Switzerland, where the banking activity represents an hystorical cultural inheritance. The three found sites demonstrate how cultural inheritances are effective even when facing

totally innovative objectives. As the matter of fact, the sites developed by Suisse banks are able to reach an “excellent” overall mean, especially in terms of completeness, graphic care and Euro information.

The North-American sites generally provide good services, characterised by a reduced effectiveness due to the unavailability of multiple languages and a not totally detailed information supplied. Two sites present information about Euro. Viceversa, in the last three references searched in Australia, Singapore and Shanghai, the same mean value is reached with an excellent amount of information supplied, poor availability for personal contacts and absence of information about Euro.

Last but not least, the service available at Japanese sites are generally sufficient, with a special care devoted to the graphics. Western languages are limited to the English version, the availability of contacts is poor and no information about Euro are supplied.

5. Conclusions

The quantity and the quality of the information related to the new community currency, diffused through Internet from the main commercial banks of the European union, absolutely can be considered satisfactory, also keeping track of the physiological differences that exist among the different present actors in this scenery.

The study underlined as, after one year from the former experience, the evolution of some sites has certainly been notable, although some limitations remain to the use of the potentialities offered by the virtual environment.

The first evaluation is tied to the finalities with which this innovative tool is used. The majority of the banks, in fact, uses the virtual environment only to spread information, almost entirely neglecting the potentialities offered by the interactivity (White, Walnut-trees, 1998), for the acquisition or the exchange of mutual information, and from the multimediality, for the diffusion of a better business image.

The lack of reciprocity is also found in the poor use of the ipertextual references, destined and deriving to/from Internet pages of competing and/or complementary

organisations, with the result not to draw some benefit from the effect of “fair” attraction that could derive of it.

Besides, the extremely limited number of the multi-lingual versions, that are mainly used to supply information in English to the small shareholders avoiding the introduction of the offered services, show not a notable resistance of the banking environment to accept totally those openings of scenarios e/o markets that the virtual world offers for its nature.

The partial usage of the new communicating potentialities, supplied by Internet, probably represents the main reason for the absence of some sampled organisations. This means that the new medium is still perceived as not sufficiently effective or, at least, with a cost/benefit ratio largely unsatisfactory.

A more quantitative approach, joined to a more specific and detailed schema in terms of virtual characteristics could represent a different enhancement of this study. In the first case less subjective results could be obtained, while in the second case a study about the usage of the most innovative features supplied by the virtual environment will provide very interesting insights on the potential development of this medium.

References

- BIANCHI R., NOCI G. (1998): “Obiettivi e determinanti dell’utilizzo del sito Web nelle imprese industriali”. Atti del IX Congresso Nazionale AiIG, Roma, novembre 1998.
- BLOOMBERG ONLINE (1999): <http://www.bloomberg.com/welcome.html>
- CAVE M., WAVERMAN L. (1998): “The future of international settlements.” Telecommunications Policy, 22, 11, 883-898.
- FOX D., DOWNING T. (1995): “HTML Web publisher's construction kit.” *The Waite Group Inc.*
- LAMBORGHINI B. (1998): “Prospettive ed opportunità della rivoluzione digitale per l’Europa e per l’Italia”. Atti del Congresso Nazionale AICA 98, Napoli, novembre 1998.
- NABE M., HIDEO MIYAHARA M.M. (1998): “Analysis and modeling of World Wide Web traffic for capacity dimensioning of Internet accesses lines.” Performance Evaluation, 34, 249-271.

- NEGROPONTE N. (1995): "Being digital." (translation in Italian: "Essere digitali") Sperling Kupfer.
- SEGAL B. (1995): "A short history of Internet protocols at CERN." <http://wwwcn.cern.ch/pdp/ns/ben/TCPHIST.html>
- TESAURO C., CAMPISI D. (1998): "Potentialities and usage of internet communications: a qualitative and quantitative overview." 38th Congresses of the European Regional Science Association, Vienna, august 1998.

Appendix

Error! Bookmark not defined.

<http://www.creditanstalt.co.at/>
<http://www.psk.co.at/psk/>
<http://www.volksbank.at/>
<http://www.kbc.be/>
<http://62.160.53.129/dexia.htm>
<http://www.ddb.dk/>
<http://www.unibank.dk/>
<http://www.jyske-bank.dk/>
<http://www.sydbank.dk/>
<http://www.leonia.fi>
<http://www.merita.fi>
<http://www.alandsbanken.fi/>
<http://www.socgen.com/>
<http://www.bnpparibas.fr/>
<http://www.ccf.fr/>
<http://public.deutsche-bank.de/>
<http://www.dresdner-bank.de/>
<http://www.commerzbank.de/>
<http://www.hypovereinsbank.de/>
<http://www.boi.ie/>
<http://www.aib.ie/>
<http://www.sanpaolo.it/>
<http://www.bci.it/>
<http://www.bancaroma.it/>
<http://www.credit.it/>
<http://www.bnl.it/>
<http://www.bgl.lu/>
<http://www.ippa.lu/>
<http://www.bcee.lu/>

<http://www.abnamro.com/>
<http://www.inggroup.com/>
<http://www.bes.pt/>
<http://www.bpatlantico.pt/>
<http://www.bancosantander.sch.es/>
<http://www.bbv.es/>
<http://www.argentaria.es/>
<http://www.bch.sch.es/>
<http://www.hsbcgroup.com/>
<http://www.barclays.com/>
<http://www.abbeynational.co.uk/>
<http://www.ldc.co.uk/>
<http://www.ethniki.gr/>
<http://www.handelsbanken.se/>
<http://taz.sebank.se/>
<http://www.foreningssparbanken.se/>
<http://www.stadshypotekbank.se/>
<http://www.nb.se/>
<http://www.ubs.com/>
<http://www.de.credit-suisse.ch/>
<http://www.juliusbaer.com/>
<http://www.citi.com/>
<http://www.bankerstrust.com/dbbt/>
<http://www.PNCBank.com/>
http://www.btm.co.jp/index_e.htm
<http://www.sumitomobank.co.jp/eng/index-e.html>
<http://www.dkb.co.jp/english/index.html>
<http://www.fujibank.co.jp/>
<http://www.bankwest.com.au/>
<http://www.uob.com.sg/>
<http://www.shacombank.com.hk/>