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Short Note / Araştırma Notu

Qualitative Evaluation of Web Sites of Firms in Turkish Fishery Sector

*Elif Kamanlıoğlu, Dilek İşgören Emiroğlu

Ege University, Faculty of Fisheries, 35100, Bornova, Izmir, Turkey
**E mail: elif.kamanlioglu@mail.ege.edu.tr*

Özet: *Türkiye su ürünleri sektöründeki firmaların web sitelerinin nitelik analizi.* İnternetin Türkiye'deki sosyo-ekonomik yaşama hızlı bir şekilde nüfuz etmesi kuşkusuz su ürünleri sektörünü de etkilemektedir. Dijital olanakların artmasıyla firmaların internet ortamında varlık yaratmaları yada varlıklarını geliştirmeleri gittikçe önem kazanmaktadır. Dolayısıyla Web site dizaynının su ürünleri sektöründe faaliyet gösteren firmalar için de önemli bir faktör olması gerekmektedir. Bu çalışma Türkiye su ürünleri sektöründe faaliyet gösteren firmaların sahip oldukları Web sitelerinin özelliklerinin incelendiği ilk araştırmadır. Çalışmanın iki amacı bulunmaktadır: Web site analizi yoluyla firmaların internet ortamındaki varlıklarının ne düzeyde olduğunu araştırmak ve nitelikleri açısından firmaların Web sitelerinin dizayn ve içerikleri arasındaki farklılıkları belirlemek. Web sitelerinin analizinde 2QCV3Q modeli kullanılmıştır. İstatistiksel analiz sonuçları işleme ve akuakültür-işleme firmalarının, akuakültür ve avcılık firmalarına gore kendilerini internet ortamında daha başarılı bir şekilde sunduklarını göstermektedir.

Anahtar Kelimeler: .

Abstract: The rapid increase in penetrating rate of the Internet into Turkish socio-economic life is certainly affecting the Turkish fishery sector. With the enhancement of digital opportunities, the necessity of creating or expanding Web presence of firms has become more important. Consequently, Web site design should be the most important factor for firms in the fishery sector. Given this approach there is a need for evaluating Internet strategies based on Web practices of firms in Turkish fishery sector. This paper is the first study exploring the Web site features of the firms in Turkish fishery sector. The aim of this study is two-fold: first, to examine the level of Web presence of firms by evaluating Web sites, and second, to determine differences between firms' Web sites in terms of design and content features through qualitative approach. The 2QCV3Q model was utilized to evaluate Web sites. Results of statistical analyses revealed that processing and aquaculture-processing firms were more successful in representing themselves on the Web site compared to aquaculture and fishery firms..

Key Words: Internet, Web site evaluation, firms, fishery sector.

Introduction

Since 1990s, the Internet and the World Wide Web (WWW) have become the most important means of communication and continue to evolve rapidly in ways which have a major impact on business strategy (Simeon, 1999). Advances in the Internet and WWW technologies have altered forever the market environment (Fojt, 1996) and Web sites which mediums provided by the Internet have created new opportunities especially for companies and emerged as one of the corporations' most essential image building tools in the 21st century (Ahern-Conolly and Broadway, 2007). Web sites become an important channel for companies to reach their publics (Maynard and Tian, 2004). Web sites as 24 hours open online offices provide increasing hours of business (Kiani, 1998). Therefore, accessing without a limitation of time to a greater number of customers via Web sites may in turn lead to higher sales, market share, and profitability levels for firms (Pflughoeft et al., 2003). Because of these tendencies have global effects; there is no way to avoid adopting new perspectives for the firms and there is no exception for Turkey. In Turkey there has been a rapid development in use of the Internet, and everyday approximately 20-30 new companies with *com.tr* addresses joined the Internet society (Aydın, 2001). According to the most recent reports, the proportion of enterprises which have a Web site has been reached 62.4% from 48.2% in three years (State Statistics Institute, 2008) and there has been a trend towards an increasing number of Internet users (State Statistics Institute, 2008) in Turkey.

The rapid increase in penetrating rate of the Internet into Turkish socio-economic life is also certainly affecting the Turkish fishery sector which is one of the fastest growing sectors since past few years. With the development of the sector and enhancement of digital opportunities, the necessity of creating or expanding Web presence of firms has become more important. The necessity of the Web presence for firms in Turkish fishery sector can be explained on account of some important socio-economic facts. Firstly, Turkey is surrounded by sea on three sides and in contrast with an increasing share of the fishery sector in the national food production. The per capita consumption is limited only for 8.6 kg (State Statistics Institute, 2007). This consumption is highly low compared to European or neighbor countries. Turkish firms can take advantage of Web sites to reach new customers and contribute in enhancing consumption. Secondly, exporting has been realizing mainly to European countries which competition took place mainly in aquaculture production. Although Turkish exporter firms make relatively good profits through low production costs (Eurofish, 2000) they should

keep up with their competitors in the strong global competition circumstances. Firms can achieve this via Web site without physical restrictions and high budgets. Finally, the majority of the firms have been consisting small enterprises incapable of competing with big ones. From this point of view the Internet and especially Web sites offer numerous advantages to these small enterprises to present themselves and to compete against big enterprises in a cost effective way. Web sites have an important role for firms on communicating with customers, suppliers and other actors in the market place. Thus a firm's Web site should basically be interactive and provide two way communications. Interactivity is the degree to which a dialogue can be generated between the firm and visitors to its site (Sullivan, 1999). In order to attract customers to site, suitably interactive and valued content should be provided (Kiani, 1998). Services such as e-mail communication, feedback mechanism, FAQs, customer support, in which provided by the Web site also improve site interactivity and support site content. For an effective working of the site, providing the continuity of the site visit is important. A firm can achieve this by continuously renewing content and services (Kiani, 1998). In addition to being fresh, usability is an also important factor for a web site. Taking into account that the use of links and searching tools to navigate a Web site is one of the first strategies used by customers to a Web site (Cox and Dale, 2002), usability provides functionality of the site in terms of delivering site content to customers. Consequently, a Web site fulfilling these elements can bring a strong image to the firm and enhance the capability of firm's competitiveness.

Web site design should be the most important factor for the firms in the fishery sector in terms of gaining new customers and therefore enhancing consumption, assuring competition ability in global scale and keeping in existence consistently by overcoming national competition. Given this approach, there is a need for evaluating Internet strategies based on Web practices of firms in Turkish fishery sector.

Because the Web site quality evaluations aim to make a Web site useful, profitable, user linking and accessible (Signore, 2005) a quality evaluation method was chosen to examine Web sites in this study. Numerous studies can be found in the literature relating quality evaluation methods. Despite scopes and advantages, evaluating the quality of a Web site requires expensive methods such as heuristic evaluations which a group of specialists (expert evaluators) have involved or empirical usability tests which a group of users with different background, age and skills have evaluated Web sites according to their using satisfaction (Signore, 2005). These evaluations require high consumer or user involvement and sometimes need an experimental environment (Hung and McQueen, 2004) and do not permit to find problems related to typical problems (Signore, 2005). Unlike such models, Mich et al. (2003a) proposed the 2QCV3Q model which provides flexible and practicable approach to evaluate Web site quality. The two distinctive features of this model are scalability (allowing for evaluation at varying degrees) and flexibility (applicable in diverse sectors) (Mich et al., 2003b).

In this study, providing insights related to importance of the Internet and the need of Web presence for the firms in Turkish fishery sector were aimed. The main objective of this study is to investigate how firms in fishery sector present themselves on their Web sites. For this purpose, Web sites were analyzed through a quality evaluation model. In order to determine whether there are differences between firms and site features, evaluation results were compared according to field of activity and model criteria. Finally, evaluation results were discussed and some suggestions were made.

Materials and Methods

In order to provide a useful evaluation for the Web sites of the firms in the fishery sector, the conceptual framework of this study was built upon the Web site quality evaluation model of the Mich et al. (2003a). The 2QCV3Q model takes its name from the 7 loci of Ciceronian rhetoric on which it is based on *Qvis* (Who), *Qvid* (What), *Cvr* (Why), *Vbi* (Where), *Qvando* (When), *Qvomodo* (How), *Qvibvs Avxiliis* (With what means and devices) (Mich et al., 2003a). The model was built on seven dimensions interpreted from Ciceronian loci: Identity, Content, Services, Location, Management, Usability, and Feasibility (Table 1).

Because search engines are the most powerful when looking for a Web sites (Morville et al., 1999), for the selection of Web sites a well-known search engine, Google, was used with several key words such as "fish", "aquaculture", "aquaculture producing", "capturing", "fisheries", "processing" and list of fish and related product names. Web sites were analyzed in September, 2008. Research was limited to food producers only and other firms associated with productive inputs and the other materials used in the capture or culture process or trade firms were excluded from the search. Four types of food producer firms were identified: aquaculture firms, aquaculture and processing firms, processing firms and fishery firms. Classification of the firms was made according to information about field of activity in the Web site home page.

According to the seven criteria of the model an evaluating form with 69 questions were prepared for Web site evaluation (Table 2). In order to ensure the objectivity, evaluation of sites was conducted without the involvement of users and scores was measured according to presence or absence of the features in the Web site. In case of presence of the positive features 1 point (if absent 0) and in case of presence of the negative features 0 point (if absent 1) were coded. In the evaluation process whole pages of the site were examined. Site scores were calculated for each firm and criteria then treated as parametric variables after square root transformation. Multivariate analysis of variance followed by the Tukey's post-hoc tests was conducted to investigate the variations in criteria due to firm types and analysis of variance was also utilized to determine which features were differing statistically. In case of Box's M-test results were significant MANOVA procedure was proceeded if the Sig. value is larger

than 0.001 and Wilks' Lambda and Pillai's Trace statistics were also significant (Pallant, 2004). Statistical analyses were performed with the statistical software package SPSS 16.0.

Results

As a result of site searching 80 Web sites were determined, 67 sites were evaluated and remained 13 sites were not evaluated because of under construction or server error (See Appendix). According to general evaluation, a clear difference between firms was found (Figure 1). In order to confirm this exactly, the effect of firm type on site scores in seven criteria was investigated using MANOVA and post-hoc Tukey procedures. Although Box's M-test results were significant (*Box's M* = 173.95, *p*=0.002), MANOVA procedure was proceeded because the Sig. value is larger than 0.001 and Wilks' Lambda and Pillai's Trace statistics were found significant (Table 3). MANOVA results revealed that for five criteria, the firm's Web sites featured significantly different results (Table 3). Only location (*F*=0.04, *p*=0.988) and management (*F*=0.98, *p*=0.406) criteria were not differed across the firms. According to similarity of the results processing and aquaculture-processing firms were likely to represent themselves better than aquaculture and fishery firms (Figure 1).

In aquaculture and fishery firms' Web sites, the most frequently employed criteria were management (appearing in 74% and 82% of the Web sites respectively), and the least employed criteria were content (31% and 17%) and service (24% and 32%). Other criteria were followed as location (69% and 70%), identity (63% and 71%), feasibility (52% and 60%) and usability (49% and 62%). Unlike aquaculture and fishery firms, in processing and aquaculture-processing firms' Web sites the most frequently criteria were identity (appearing in 83% and 85% of the Web sites respectively) and content (64% and 75%). Service was also the least employed criteria in processing and aquaculture-processing firms' Web sites (33% and 53%). Other percentages of management, location, usability and feasibility criteria of processing and aquaculture-processing firms were found 76% and 81%, 70% and 69%, 66% and 74%, 65% and 74% respectively.

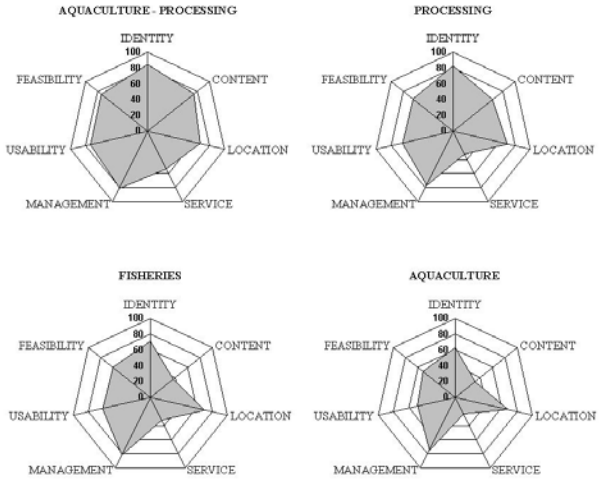

Figure 1. Quality of the Web sites of firms.

Table 1. Criteria of the 2QCV3Q model (Mich et al., 2003a,b)

Criteria	Attributes	Definition
Identity	Identification Characterization	Defines the image that the organization projects and all elements that come together in defining the identity of the owner of the site
Content	Coverage Accuracy	Defines the information and the services available for users on the site
Services	Functionalities Control	Concerns how this information fulfills the stakeholders' goals
Location	Reachability Interactivity	Concerns the visibility of a site and the site's ability to provide users with a space where they can interact with each other and with the organization
Management	Currentness Maintenance	Includes all activities that guarantee proper functioning and operability of the site, in addition to updating the technology and adapting the site to new requirements
Usability	Accessibility Navigability Understandability	Concerns any aspects which enable a relatively undemanding use of the site in terms of time or cognitive input
Feasibility	Resources Information technology Communication technology	Defines all aspects strictly relating to project management, including the limits on time and budget, the skills required and the choice of architecture

Table 2. Site evaluation form based on model criteria.

IDENTITY	MAINTENANCE
Positive Features	Positive Features
Company name in site URL	Site last update date
Corporation logo in home page	Site counter
Corporation logo in other pages	Negative Features
Corporation brand	Loading problem of pages
Mission / vision statements	Broken link
Field activity	"Under construction" pages
Company history	Server problem
Organization and operation	Correctness of the text
Messages from CEO	Errors in hypertexts/icons
Negative Features	Errors in pictures/animations
Non-related information	
	USABILITY
CONTENT	Positive Features
Positive Features	Site map / table of contents
Photos of general view, production units	Search engine
Product range	Return to home page link
Product size information	Back to the top of the page link
Product packaging information	Go to next or previous page link
Production cycle	Navigation bar in home page
Quality certificates	Menu in home page
Information related customers, suppliers, references	Vertical / horizontal scrolling
News from new products/services, press releases	Label of current position in navigation bar/menu
Issues related social responsibility, environment	Text visibility during animation/picture loading
Financial information, annual report	Labels of photos
Sectoral information, issues related field activity	Title of pages
	Navigation bar in page bottom
LOCATION	Color contrast
Positive Features	Language options
"com" / "com.tr" in site URL	Negative Features
Contact information of site designer	Different fonts in the same page
Company address and telephone	Different font colors in the same page
Site membership	
	FEASIBILITY
SERVICE	Positive Features
Positive Features	Consistent page hierarchy
e-mail newsletter	Frame application
FAQs	Resolution/browser information
Human resources/employment opportunities	Photo, flash animations etc.
Site questionnaire	Audio
Customer service/support	Privacy and security statement
e-mail contact	Download section
Online guest book/comment form/order form	Printing of pages available
Information related recipes, nutritional values etc.	Saving of pages available
Links to other related sites	

Table 3. MANOVA and Tukey (HSD) post-hoc tests results by firm – model criteria

Model Criteria	Aquaculture (n=24) (a)	Processing (n=21) (b)	Aquaculture–Processing (n=12)(c)	Fisheries (n=10) (d)	F value	*P* value
Identity (10 items)	$6.3_{b,c*}$	8.3_{a*}	8.5_{a*}	7.1	7.37	0.000**
Content (11 items)	$3.5_{b,c**}$	$7.0_{a,d**}$	$8.3_{a,d**}$	$4.0_{b*,c**}$	20.13	0.000**
Location (4 items)	2.8	2.8	2.8	2.8	0.04	0.988
Service (9 items)	2.1_{c*}	3.0	4.8_{a*}	2.9	3.90	0.013*
Management (9 items)	6.6	6.9	7.3	7.4	0.98	0.406
Usability (17 items)	$8.3_{b*,c**,d*}$	11.3_{a*}	12.5_{a**}	10.6_{a*}	9.24	0.000**
Feasibility (9 items)	$4.7_{b,c*}$	5.9_{a*}	6.7_{a*}	5.4	5.27	0.003*

Note: The cell figures are arithmetic means, mean scores with different letters are Tukey's HSD pairwise comparisons;
** Significant at P<0.05 level;*
*** Significant at P<0.001level; (Box's M=173.95, p=0.002; Pillai's Trace = 0.780, p=0.000; Wilks' Lambda = 0.343, p=0.000).*

Generally service and content were the most distinctive criteria between firms (F=7.37, p<0.001 and F=20.13, p<0.000). Aquaculture and fishery firms had low scores especially in identity, content and service criteria while processing and aquaculture-processing firms got higher site scores. Although fishery firms were similar to aquaculture firms in general view, these firms were more effective in use of features than aquaculture firms. For example service and identity frequencies were almost the same with the processing firms. Tukey results also confirmed this; only aquaculture firms were differed in service and identity criteria (Table 3).

In order to detect the Web site features in which the difference was present a one-way ANOVA was conducted on the scores of the 69 Web site features. 25 of the features were found significant across firms (Table 4). Remained 44 insignificant features were listed in Appendix 3. Except few items, insignificant ones were found in almost all of the sites therefore these items did not differ across firms. However significant items were less employed compared to insignificant items. According to overall results, information related product range, company address and telephone and photo, flash animation applications were present in all of the sites. There were not page loading and server problems in most of the sites except three processing firms. In most of the sites basic usability features was employed in order to provide site visiting easily. FAQs section, site membership, site map, site counter, e-mail newsletter, site questionnaire were found the least employed features.

The most frequently used features were relating to identity. Most of the sites contained firm logo in home pages. Except aquaculture firms, all of the firms placed firm logo in each page of their sites (F=3.204, p=0.030). Information related field of activity and history of the firm were also present in all of the sites' home pages. %62 of the processing and 58% of the aquaculture-processing firms used product brand in their sites whereas only 8% of the aquaculture and 10% of fishery firms used, therefore this feature was significantly different (F=7.826, p=0.000). Vision and mission statements were the other identity features found significant (F=5.792, p=0.002). Most of the processing and aquaculture-processing firms stated their visions and missions (71% of processing and 83% of processing aquaculture) but only 21% of aquaculture firms and 50% of fishery firms placed this feature in their sites. Information related firm's organization and operation structure also found significant (F=5.038, p=0.004). This feature existed only in processing and aquaculture-processing firms' Web sites. In terms of content, processing and aquaculture-processing firms' sites exhibited more extensive information compared to aquaculture and fishery firms therefore almost all content features were found significant except three features (Table 4). Results of the features related to service were showed similar patterns across firms. Site questionnaire, e-mail newsletter, FAQs and sections giving information about recipes/nutritional values were least frequently provided services. In generally only e-mail service (F=0.956, p=0.420) and online guest book/comment form/order form (F=3.617, p=0.018) were provided by the majority of sites. Customer service/support was the other significant feature (F=3.161, p=0.031). Fisheries firms offered this service as well as aquaculture-processing firms, but in the aquaculture firms' web sites the use of this service was much less than other firms. In terms of usability the most important features significant were, search engine and language options (F=3.826, p=0.014 and F=9.316, p=0.000 respectively). These features were predominantly used by aquaculture-processing and processing firms' Web sites. Aquaculture firms offered usability features the least frequently. Most of the feasibility features such as frames, photos, audios, animations were used in web sites. However, only three features were found significant. In the entire Web sites, printing of pages were available (F=3.204, p=0.030). Consistency of pages differed across firms' Web sites (F=3.908, p=0.013) and except aquaculture-processing firms, this feature was not provided frequently by firms.

Discussions

Continuous changes in technological and market environment and pressures of time require innovative solutions to maintain competitiveness (Mich et al., 2003b). Firms incorporating Web based strategies into other strategies such as marketing can survive in these circumstances. Consequently, Web sites should bear one or more definite purposes that are part of the firm's strategy (Wan, 2000).

Considering the importance and quality of the Web sites, the overall results suggest that fishery firms' approach to Web presence was affected by their strategic objectives and market environment in which they operates. Although site features did not differ in accessibility/reachability and maintenance, other important features related to interactivity, functionality and profundity of the Web site showed distinctive variations according to firms.

The most successful sites in Web site quality were aquaculture-processing and processing firms respectively. These firms generally had advantage in Web presence in this study. Especially aquaculture-processing firms' Web sites more interactive, content rich and high quality. It can be said that these firms represented themselves effectively, provided more detailed information about their products and activities, responded to needs of the customers more effectively. A plausible explanation of this that aquaculture and aquaculture-processing firms' are mainly export their product and thus they have wider vision about Web site importance in new economy which is based on communication, customer satisfaction, value adding, competence and specialization. Contrasting to processing firms, aquaculture firms generally have not adopted a Web site strategy completely and are still at the beginning stage of Web adoption. Most of the sites could not go beyond an online brochure. Because in aquaculture, a primary focus has been on system capacity and production

output (Hart and Reynolds, 2002), these firms might not need to develop Web based strategies in their marketing activities. However as more customers of small and mid-sized businesses are utilize the Internet as a tool for evaluating and selecting the goods and services they will purchase, the smaller business now has an opportunity equal to that of larger operations (Haynes et al., 1998). For this reason especially marketing departments of these firms should start to get interested in the commercial potential of the Web and take advantage of cost effective competition strategy. Finally, fisheries firms seem to achieve promising advancements. Although these firms were not successful as much as processing firms because of the emphasis has been on fish stocks and production and slow to adopt the concept of marketing (Hart and Reynolds, 2002) similarly to aquaculture firms, their Web sites can still be considered successful according to the quality. As compared to the aquaculture firms the difference is more apparent in terms of interactivity, usability, content and the level of technology. This strategy is possibly the result of their high production costs and low domestic consumption rates. These firms might intend to find ways to promote consumption therefore increase their profits via Web sites which requires small budgets.

Despite the differences between the firms most firms utilized 60% of the Web site features (average 41 items of the 69 items). Thus findings of this study may indicate the growing importance of the Web site as a firm's strategic tool. Because Web sites are dynamic they change over the time. Therefore re-evaluating of the sites will be necessary to see improvements of the firms' Web strategies.

Table 4. ANOVA results of the site features differed significantly across firms

Criteria	Item	Aquaculture (%)	Processing (%)	Aquaculture Processing (%)	Fisheries (%)	F value	*P* value
Identity	Corporation logo in other pages	79	100	100	100	3,204	0,030*
	Corporation brand	8	62	58	10	7,826	0,000**
	Mission / vision statements	21	71	83	50	5,792	0,002*
	Organization and operation	67	100	100	60	5,038	0,004*
Content	Product size information	13	67	92	10	15,538	0,000**
	Product packaging information	13	71	92	20	15,061	0,000**
	Production cycle	17	86	83	20	14,446	0,000**
	Quality certificates	25	86	100	20	16,015	0,000**
	Information related customers, suppliers, references	17	62	33	50	3,190	0,030*
	News from new products / services, press releases	17	62	58	30	3,774	0,015*
	Issues related social responsibility, environment	4	19	58	30	5,746	0,002*
	Financial information, annual report	0	14	42	0	5,173	0,003*
Service	Human resources / employment opportunities	4	24	50	10	4,088	0,011*
	Customer service/support	4	10	50	30	3,161	0,031*
	Online guest book/comment form/order form	50	48	100	60	3,617	0,018*
	Links to other related sites	8	38	67	30	3,719	0,016*
Usability	Search engine	0	29	42	10	3,826	0,014*
	Back to the top of the page link	0	14	42	10	3,908	0,013*
	Label of current position in navigation bar/menu	63	90	100	80	2,843	0,045*
	Language options	21	86	67	30	9,316	0,000**
	Different fonts in the same page (Font consistency)	58	90	100	90	4,141	0,010*
	Different font colors in the same page (Color consistency)	71	90	100	100	2,817	0,047*
Feasibility	Consistent page hierarchy	0	14	42	10	3,908	0,013*
	Download section	8	33	50	0	4,162	0,010*
	Printing of pages available	79	100	100	100	3,204	0,030*

** Significant at P<0.05 level; ** Significant at P<0.001level*

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Appendix 1. List of sites evaluated in September 2008.

Aquaculture
http://www.akua-group.com/
http://www.akuvatur.com/tr/
http://www.arasalabalik.com/
http://www.aydinpinaralabalik.com/
http://www.canlaralabalik.com/index.htm
http://www.dincalabalik.com/
http://www.dortmevsimalabalik.com.tr/
http://www.firatalabalik.com/
http://www.kapidag.com/ad/uysalala.php
http://www.kaplanoglualabalik.com/
http://www.kocamanfish.com.tr/
http://www.kuzey-deniz.com/
http://www.kuzeysuurunleri.com.tr/
http://www.limanentegre.com/
http://www.ozpekler.com.tr/
http://www.pelmin.com/
http://www.santairas.com/
http://www.sapancayaylaalabalik.com/
http://www.selalealabalik.com/
http://www.sogutonualabalik.com/index.aspx
http://www.soneks.net/
http://www.uzunoglualabalik.com/
http://www.tsm.com.tr/
http://www.turkticaret.net/e/egemar/tr/contact.php

Aquaculture & Processing
http://www.akvaturk.com/process.html
http://www.bagci.com.tr/
http://www.dardanel.com/
http://www.egeizmir.com.tr/
http://www.elize.com.tr/index_tr.html
http://www.fjord-marin.com.tr/
http://www.kebanalabalik.com.tr/
http://www.kilicaquaculture.com/
http://www.kopuz-mar.com/
http://www.mersu.com.tr/
http://www.pinar.com.tr/
http://www.ugurlubalik.com/

Processing
http://www.alfarm.com.tr/
http://www.antalyabalik.com.tr/tr/Default1.asp
http://www.ayfrost.com/
http://www.basaranbalikcilik.com/tr/
http://www.cesurlar.com/profil.htm
http://filika.net/index.html
http://www.iskenderunbalikcilik.com/
http://www.kardez.com.tr/
http://www.kemalbalikcilik.com/
http://www.kerevitas.com.tr/
http://www.kirisgida.com.tr/
http://www.lilisea.com/
http://www.marines.com.tr/
http://www.marsu.com.tr/
http://midye.diyari.com/
http://www.pakyurek.com/
http://www.pelikanfish.com/
http://www.polatlar.org./
http://www.poseidon-pesca.com/
http://www.superfresh.com.tr/
http://www.ulubaytr.com/

Fisheries
http://www.coruhbalikcilik.com.tr/index.asp
http://www.dalyanbalikcilik.com/
http://www.dogusbalikcilik.com/
http://www.fribal.com.tr/
http://www.gulbalikcilik.com/
http://www.imrenmarmara.com.tr/
http://www.ozlucebalikcilik.com/
http://www.sagdiclar.com/
http://www.sevilgroup.com/balik_index.htm
http://www.ucanbalikcilik.com.tr/

Appendix 2. List of sites which were unable to access in September 2008.

http://www.adaseafood.com/
http://www.almafish.com/
http://www.balsa.com.tr/
http://www.baysoy.com/
http://www.cansudeniz.com/
http://www.istanbulbalik.com/
http://www.melisasuurunleri.com/
http://www.okyanusgida.com.tr/
http://www.simotek.net/
http://www.pusulasu.com/
http://www.yelkenfishing.com/
http://www.salmon.com.tr/
http://taselibalikcilik.com.tr/hakkimizda.html

Appendix 3. Result of the items which were not differed significantly.

Criteria	Item	Aquaculture (%)	Processing (%)	Aquaculture Processing (%)	Fisheries (%)	F value	P value
Identity	Company name in site URL	92	100	92	100	0,891	0,451
	Corporation logo in home page	83	95	100	100	1,482	0,229
	Field activity	88	100	100	100	1,739	0,169
	Company history	83	90	100	80	0,764	0,519
	Messages from CEO	4	14	17	20	0,881	0,456
	Non-related information	100	95	100	90	0,949	0,423
Content	Photos of general view, production units	92	90	92	60	2,248	0,092
	Product range	100	100	100	100	0,000	1,000
	Sectoral information,issues related field activity	50	48	75	60	1,370	0,261
Location	"com" / "com.tr" in site URL	92	100	100	100	1,107	0,354
	Contact information of site designer	75	67	75	70	0,223	0,880
	Company address and telephone	100	100	100	100	0,000	1,000
	Site membership	8	14	0	10	0,632	0,598
Service	e-mail newsletter	4	14	8	10	0,536	0,660
	FAQs	0	14	17	0	2,273	0,089
	Site questionnaire	8	5	25	10	0,551	0,650
	e-mail contact	88	95	100	100	0,956	0,420
	Information related recipes, nutritional values etc.	46	52	58	40	0,318	0,812
Management	Site last update date	46	52	75	70	0,998	0,400
	Site counter	8	10	8	10	0,021	0,996
	Loading problem of pages	100	95	100	100	0,763	0,519
	Broken link	83	90	83	100	0,764	0,519
	"Under construction" pages	83	90	83	100	0,764	0,519
	Server problem	100	95	100	100	0,763	0,519
	Correctness of the text	92	95	100	90	0,349	0,790
	Errors in hypertexts/icons	75	81	83	90	0,309	0,819
	Errors in pictures/animations	75	76	100	80	1,072	0,368
Usability	Site map / table of contents	0	19	17	0	2,273	0,089
	Return to home page link	92	90	83	80	0,319	0,811
	Go to next or previous page link	21	43	58	30	1,512	0,221
	Navigation bar in home page	63	71	92	70	0,834	0,481
	Menu in home page	54	62	75	90	1,379	0,258
	Vertical / horizontal scrolling	75	76	100	100	2,151	0,103
	Text visibility during animation/picture loading	96	100	100	100	0,529	0,664
	Labels of photos	33	57	58	50	0,894	0,450
	Title of pages	88	90	92	100	0,422	0,738
	Navigation bar in page bottom	17	24	25	20	0,318	0,812
	Color contrast	79	95	100	100	2,096	0,110
Feasibility	Frame application	63	81	100	90	2,449	0,072
	Resolution/browser information	4	19	17	10	1,017	0,392
	Photo, flash animations etc.	100	100	100	100	0,000	1,000
	Audio	75	95	92	90	1,267	0,294
	Privacy and security statement	46	43	67	40	0,487	0,692
	Saving of pages available	92	100	100	100	1,107	0,354