Search Engine Optimization (SEO) Impacts Online Shopping Mall Marketing

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Abstract

Background/Objectives:As technology has advanced, consumer purchasing patterns have changed. As a result of searching for the products of the existing online shoppers and changing the purchase method, customer loyalty to a certain shopping mall disappears, the current situation is that a domestic search portal compares product information through a search engine, and then moves to a corresponding shopping mall to purchase.Store operations in the country can see that it is the current situation that does not expose most of the products that they sell to overseas sales experience or lack of awareness of the CEO, the lack of such technology to the global portal. Therefore, a study on the impact of activities related to the deployment of Search Engine Optimization Online Shopping Mall on corporate performance in this study for the purpose.

Methods/Statistical analysis: Study the scope of the present study was a questionnaire sent by e-mail josaji targets 800 corporate representatives of the national corporate marketer.Although distribution total 500 parts, as a result of analyzing how the number of responses was used for non-response analysis and 200 parts other than the information 65 parts of a bad faith.The analysis method was frequency analysis using IBM SPSS Statistics 22The Exploratory y Factor Analysis to analyze the reliability and validity of survey tools and conduct the Reliability Analysis and Statistics conducted a technical analysis and exploratory factor analysis and reliability analysis.One-way ANOVA was used for comparative analysis by factor.Correlation Analysis was used to determine the direction of the factors.Finally, the search engine marketing was used to adjust regression analysis to examine the impact on the relationship between corporate performance.

Findings: The research resultsFirst, managers' competency has a statistically significant effect on corporate performance. It appears a significant impact on search engine optimization and utilization of the company,SEO advantage from the impact of the management capabilities on firm performance has been shown to act as a moderating effect.Second, Technology development has a statistically significant effect on corporate performance,it showed significant influence on search engine optimization and utilization of the company, technology development to optimize the search engine on the impact on the business performance advantage was the role of a moderating effect.Third, Education and training have a statistically significant impact on corporate performance,Have a significant impact on search engine optimization and utilization of the company.In addition, search engine optimization under the influence of education and training on business performance

advantage was found to act as a moderating effect.

Improvements/Applications: This study has limitations in applying it to general companies because it is possible to conduct research through extremely limited subjects such as web developers and chief executives who are involved in marketing or related to search engine optimization.However, it is meaningful in that it suggested the marketing direction of search engine optimization.In addition, through search engine optimization, it aims to enable domestic companies to exploit domestic and overseas market.

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1. Introduction

Effectiveness of search engine marketing campaigns through search engine optimization can make a big performance in the corporate investment sales. However, Korea's search engine situation is very different from abroad.Naver (www.naver.com), which occupies most of the domestic market share, is filled with keywords for advertising products and products for distribution from the highest order to the predetermined level of customers' search results.

Portal sites such as Google, Yahoo and Bing are close to search engines, but Korea's Naver is close to advertising engines.Search engine optimization can be used for non-commercial purposes, but most of them are for the purpose of distributing goods, services, and services.Therefore, companies aiming at distribution have to buy advertising products at a high cost every day in order to expose and sell their products to portal sites that are mainly searched by customers. Therefore, this study aims at the proper understanding and necessity of search engine optimization, construction method, search engine optimization marketing, and search engine optimization performance measurement method.

2. Materials and Methods

2.1. *Search Engine Optimization; SEO*

When a user searches through a search engine, the search engine finds data in the indexed content it owns and displays the search results to the user.[1]The best way to get the best results from a search engine is to have your website appear at the top when you search.[2]As such, marketing activities that manage content in accordance with the characteristics of the search engine so that search results are placed at the top and users can easily access the web site are called search engine optimization. [3]

2.2. *Online marketing*

In a study in a time when new media such as online and mobile have a big influence on the existing advertising market, the tendency of consumers to rely on the internet and mobile is becoming popular.Internet advertising is growing at an annual average rate of 27.3%, and the domestic mobile advertising market is growing rapidly based on smartphones and tablet PC.[4]In general, marketing is an activity that induces the purchase of a service or a product by maintaining a relationship with a customer by providing a timely supply of a service or a product that meets the needs of the consumer.In an intangible space where computers provide such marketing activities, marketing activities through interactive communication that enables real-time interaction with customer relationships are called online marketing.[5]In other studies, it is a new marketing approach using the Internet (World Wide Web), a network connecting the world. [6]A Studyof Online and offline marketing, there are many differences.If offline is generally informative to the public, and product-centric marketing,Online marketing is marketing that exchanges information interactively with customers and emphasizes the relationship with customers.[7]

2.3. *Search Engine Marketing, SEM*

In a study isSEM: Search Engine Marketing is an effective strategy for online marketing that aims to increase the number of visits to a specific website on a user's search engine results pages to achieve their desired goals,[8]It means every effort to register a website with a search engine or to rank the top of the search results in order to maximize the exposure or traffic of the website.[9]A study The search engine optimization (SEO) study of domestic camera manufacturer's website suggested design guidelines optimized for the search engine technology that is continuously developed.[10]

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2.4. *Research Models and Hypotheses*
2.4.1. *Research Models*

This study is a study on the search engine optimization (SEO) construction method and its effect on global online shopping malls. This study model was designed to examine the causal relationship and interaction effects through empirical analysis, and the study model was designed as shown in Figure 1.
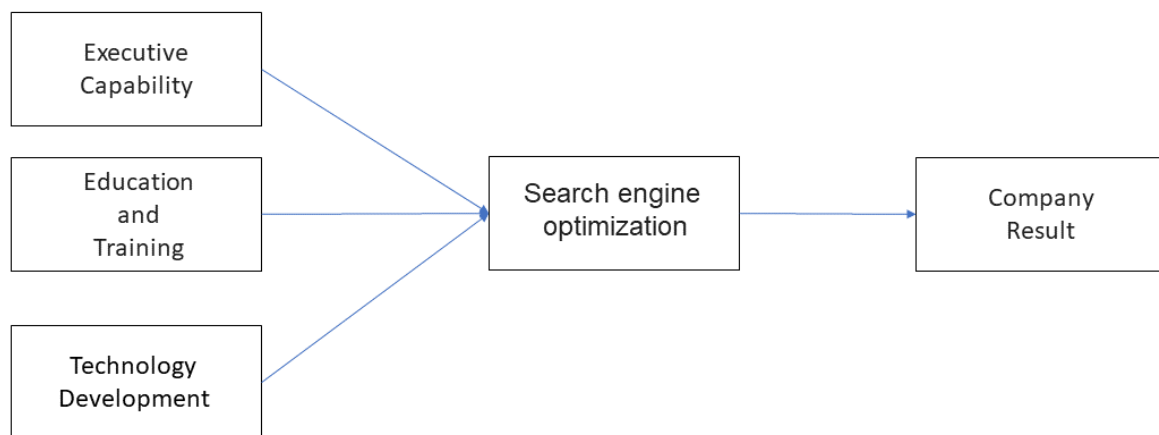

Figure 1. Research model

2.4.2. *Hypotheses*

Hypothesis 1: There will be an organic correlation between Executive Capability, Education and Training, Technology Development, Search engine optimization, and Company Result.

Hypothesis 1-1: When Executive Capability affect Company Result,Search engine optimization will have moderating effects.

Hypothesis 1-2: When Education and Training affect Company Result, Search engine optimization will have moderating effects.

Hypothesis 1-3: When Technology DevelopmentaffectCompany Result, Search engine optimization will have moderating effects.

Hypothesis 2: Depending on the type of business, there will be differences in Executive Capability Education and Training, Technology Development, Search engine optimization, and Company Result.

Hypothesis 3: The Power of business, there will be differences in Executive Capability Education and Training, Technology Development, Search engine optimization, and Company Result

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2.4.3 *Operational definition and measuring tools of variables*

The operational definitions and measurement tools for each variable are shown in Table 1.

Table 1: Operational Definition and Measurement

Variable	Operational definition
Company Factor	Business type, business history according to the company's history
Executive Capability	Executives' Perception of Search Engine Optimization Marketing and Support
Technology Development	In-company technical infrastructure, professional staffing, website management
Education and Training	Continuing education, content and organizational suitability, suitability in the enterprise
Search engine optimization	SEO usability, content management degree
Company Result	Increase in number of contracts, sales, inquires, buyers, and share of the company

3. Results and Discussion
3.1. *Empirical analysis result*
3.1.1.Demographic Analysis

The positions were 94 employees and representatives (47.0%), 72 managers and deputy managers (36.0%), 22 managers (110.0%) and 12 representatives and executives (6.0%), The industry includes 34 mechanical and metal (17.0%), 36 electrical and electronic (18.0%), 33 chemical and bio (16.5%), 35 food (17.5%), 49 computer and telecommunications (24.5%), Others were 13 (6.5%).History consists of seven people (3.5%) under one to three years, 61 people (30.5%) under three to five years, 111 people (55.5%) under six to eight years, and 21 people under eight to ten years (10.5%).The number of employees was 87 (43.5%) with 50 or less, 74 (37.0%) with 50~100, 32 (16.0%) with 100~200, and 7 (3.5%) with 200 or more.Lastly, the main marketing tools used were 45 participants (22.5%), 36 SNS marketing (18.0%), 37 emails (18.5%), 42 overseas market pioneers (21.0%), search engine registration and search. 21 engine optimization (10.5%), 7 homepage construction (3.5%), 10 e-catalogue production (5.0%), and 2 others (1.0%).

3.1.2 Measurement Model Analysis
3.1.2.1 Reliability Analysis

In this study, Cronbach's α coefficient was calculated to see the internal correspondence between items to verify the reliability of the items measured on the multi-item scale.Reliability refers to the variance of measured values when repeated measurements of the same concept are made.Cronbach's Alpha is commonly used to measure reliability for a set of more than one conceptual predictor variables, although the Cronbach's α value, a measure of reliability, is not a defined criterion. If it is 60 or higher, it is considered reliable, and if it is above .50 there are no major problems in analyzing it. The analysis results are shown in Table 2.

Table 2:Reliability Analysis

Division		Number of questions	Cronbach`s α	
Marketing	Executive Capability	3	0.597	0.702
	Technology Development	3	0.064	
	Education and Training	3	0.73	
SEO	Technical utilization	6	0.66	0.681

Content utilization	3	0.733	
Company Result	6	0.781	

3.1.2.2 validity Analysis

We adopted a method of calculating correlations between measurement variables and grouping them into several dimensions.Factor extraction model is PCA (Principal Component Analysis)- Factors were extracted by analyzing the total variance of the data using principal component analysis.According to the analysis results of marketing factors analysis, all nine items had a value of .529 ~ .838 with all factor loadings of .5 or more.The analysis results are shown in Table3.

Table 3: Marketing factor analysis

Division		Factor analysis	Eigenvalue	Cumulative variance %
Executive Capability	Awareness of Marketing Needs for Executive	.596	2.738	30.422
	Top executives continue to support the introduction and use of search engine marketing.	.686		
	Top executives recognize the need for search engine optimization	.758		
Technology Development	There is enough technical infrastructure to take advantage of search engine marketing.	.765	1.424	15.825
	There are experts in the company who use search engine marketing.	.836		
	The company maintains a website.	.529		
Education and Training	The company continues to provide training for the acquisition of skills and knowledge related to search engine marketing.	.719	1.013	11.261
	The training content and organization of the company's search engine marketing are appropriate.	.838		
	Cooperation among departments in the company is working well to revitalize search engine marketing.	.794		
KMO = 0.735, Bartlett test = 299.940, df=36, sig. = .000				

3.2 Correlation Analysis

It was found to be correlated with Executive Capability Includes Technology Development (r=.368**), Education and Training (r=.307**), Search Engine Optimization (r=.417**), Company Results (r=.467**),The directionality of the relationship was all positive. Technology Development was found to be correlated with Education and Training (r = .229 **), Search Engine Optimization (r = .196 **), and Company Results (r = .244 ***), The directionality of the relationship was all positive.Education and Training were found to be correlated with Search Engine Optimization (r = .208 **) and Company Results (r = .641 ***).***), The directionality of the relationship was all positive.Lastly, Search Engine Optimization was found to

correlate with Company Results (r = .374 ***),The directionality of the relationship was all positive. The analysis results are shown in Table 4.

Table 4: Hypothesis test results

Latent variable		Executive Capability	Technology Development	Education and Training	Search Engine Optimization	Company Results
Executive Capability	r	1				
	p					
Technology Development	r	.368***	1			
	p	.000				
Education and Training	r	.307***	.229**	1		
	p	.000	.001			
Search Engine Optimization	r	.417***	.196**	.208**	1	
	p	.000	.005	.003		
Company Results	r	.467***	.244***	.641***	.374***	1
	p	.000	.000	.000	.000	

3.3. *Mediated effect analysis*

In order to examine the moderating effect of the use of Search Engine Optimization in the relationship between the marketing capability of the Executive Capability and the performance of the company, a three-step regression analysis was performed through the input method. As a result, the control regression analysis showed no multicollinearity.The regression model of the regression model was found to have a statistically significant effect. The analysis results are shown in Table 5-7.

Table 5:The regulation effect of Using Search Engine Optimization in the Relationship between Executive Capability and Company Results

Division			Company Results				
			B	**p**	**R^2**	**$\varDelta R^2$**	**F**
Step 1	constant		2.321	.000	.218	.214	55.276***
	Executive Capability		.387***	.000			
Step 2	constant		1.696***	.000	.257	.250	34.107***
	Executive Capability		.312***	.000			
	Search Engine Optimization		.249**	.002			

		B	p	R²	⊿R²	F
Step 3	constant	1.020	.001	.284	.273	25.883***
	Executive Capability	1.264**	.001			
	Search Engine Optimization	1.194**	.001			
	Executive Capability* Search Engine Optimization	.262**	.008			
dependent variable: Company Result						

*<.05,**<.01,***<.001

Table6:The Moderating Effect of Using Search Engine Optimization in the Relationship between Technology Development and Company Result

Division		Company Results				
		B	**p**	**R²**	**⊿R²**	**F**
Step 1	constant	2.867	.000	.060	.055	12.564***
	Technology Development	.229***	.000			
Step 2	constant	1.697	.000	.170	.162	20.244***
	Technology Development	.166**	.008			
	Search Engine Optimization	.389***	.000			
Step 3	constant	1.107	.009	.196	.184	15.949***
	Technology Development	1.574**	.006			
	Search Engine Optimization	1.901**	.002			
	Technology Development * Search Engine Optimization	.387*	.013			
dependent variable: Company Result						

*<.05,**<.01,***<.001

Table 7:The Moderating Effect of Using Search Engine Optimization in the Relationship between Education and Training and Company Result

Division		Company Results				
		B	**p**	**R²**	**⊿R²**	**F**
Step 1	constant	2.066	.000	.410	.407	137.789***
	Education and Training	.473	.000***			
Step 2	constant	1.154	.000	.471	.466	87.726***
	Education and	.434	.000**			

	Training		*			
	Search Engine Optimization	.288	.000***			
Step 3	constant	.990	.000			
	Education and Training	.439	.000***	.482	.474	60.745***
	Search Engine Optimization	.327	.000***			
	Education and training * Search Engine Optimization	.121	.045*			
dependent variable: Company Result						

*<.05,**<.01,***<.001

4. Conclusion

This study is a study on the search engine optimization (SEO) construction method and marketing activity of online shopping mall. Activities and utilization related to the establishment of a company's search engine optimization (SEO),in order to examine Company Result, we designed this research model and tried to find out the causal relationship and interaction effect through empirical analysis.⏋ According to the type of business, there was a statistically significant difference in Executive Capability and Search Engine Optimization,There is a positive correlation between Executive Capability and Technology Development, Education and Training, use of Search Engine Optimization, and Company Result.The Executive Capability had a statistically significant effect on Company Result, and Search Engine Optimization utilization also had a significant effect on the Company Result. Also, the use of Search Engine Optimization plays a regulation effect of Executive Capability on Company Result.The Technology Development had a statistically significant effect on Company Result, and Search Engine Optimization utilization also had a significant effect on the Company Result.Also, the use of Search Engine Optimization plays a regulation effect of Technology Development on Company Result, The Education and Training had a statistically significant effect on Company Result, and Search Engine Optimization utilization also had a significant effect on the Company Result. Also, the use of Search

Engine Optimization plays a regulation effect of Education and Training on Company Result.Through the results of this study, customers can search through the product search (non-advertisement) on the search sites (Google, Bing, Yahoo, Baidu, etc.) to expose the contents and products of the shopping mall, so that they do not have to rely on expensive advertisements. This is expected to play a major role in reducing long-term sales or marketing costs.These results are directly related to the cost reduction of Korean products and the strengthening of global competitiveness, in particular, in the current situation in Korea, which is thirsty for increased exports, the basic technology of online Search Engine Optimization in reverse shopping malls is expected to contribute significantly to the turnaround in exports and imports.In this study, we designed a research model and conducted a data survey, but the subjects who can conduct a specialized survey called search engine optimization can conduct research through extremely limited subjects such as web developers or CEOs who are marketing or related to the company. It is said that there is a limit to applying to general companies. In the future, we will select a wide range of subjects and study the effects of job satisfaction on Search Engine Optimization

5. Acknowledgment

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