

The Impact of Search Engine Optimization Strategies on Enhancing Brand Awareness: An Empirical Study of Ecommerce Users in the Gulf Cooperation Council Market

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Abstract: The effect of SEO strategies on brand awareness amongst ecommerce consumers in the GCC market is investigated in the current study. In the context of quantitative and descriptive analytical, cross-sectional research design, the data were obtained via an online questionnaire administered to convenience sampled individuals who have made purchases on regional ecommerce websites (Shein, Temu, Namshi, Noon, iHerb, Max Fashion). 48 usable questionnaires were gathered. The concept of SEO strategy was operationally defined by content optimization, link building, technical SEO, and keyword optimization/accessibility factors. The concept of brand awareness was defined by brand recognition and brand recall factors. Data analyses were conducted using the SPSS version 26 package, which involved descriptive statistics, one sample t-tests, Pearson correlations for validation, Cronbach's alpha coefficient for reliability, and multiple linear regression. The regression equation proved to be statistically significant, $F(4, 43) = 28.849$, $p < .001$, accounting for 72.9% of the variance in brand awareness ($R = .854$, $R^2 = .729$, adjusted $R^2 = .703$). Content optimization ($\beta = .578$, $p < .001$), link building ($\beta = .396$, $p < .001$), and technical SEO ($\beta = .360$, $p < .001$) were identified as positive, statistically significant predictors of brand awareness while keyword optimization/accessibility was not ($\beta = .018$, $p = .835$). The results indicate that the content quality, credibility of the backlink profile, and technical performance of websites have stronger association with brand awareness in the studied sample than keyword activities alone. Managerial and theoretical implications, limitations of the study (small nonprobability sample size and exploratory nature of reliability of two-item subscales), and future research recommendations are provided.

Keywords: Search Engine Optimization, Brand Awareness, Brand Recognition, Brand Recall, Digital Marketing, Gulf Cooperation Council.

Type: Research Paper



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1. Introduction

The process of digitalization has completely changed the way that people find, compare and buy goods, where the role of search engines has become crucial for connecting customers and online brands (Chaffey & Ellis-Chadwick, 2019). In

ecommerce environments, people use search not only to find and compare products but also to check the reputation of new online stores before making any purchases. Therefore, SEO has become not just a technique to generate traffic, but an approach that influences branding and its awareness (Google, 2024).

Brand awareness, which is the consumer's capability to identify and remember a brand within the context of an appropriate category of product or service, is considered as one of the key pillars of brand equity (Aaker, 1991; Keller, 1993). This construct is generally accepted to be the fundamental requisite for building brand associations, quality perception, and loyalty (Yoo & Donthu, 2001). Brand awareness is also especially salient in the digital marketplace where the majority of consumers initiate their buying process through an information search. Given that SEO affects visibility at that point of time, the study of the link between SEO and brand awareness becomes important from a theoretical and managerial perspective, especially in highly digitalizing retail market environments like GCC countries.

While there is increasing interest among practitioners on the use of SEO for creating brands, scientific work which statistically relates certain SEO tactics to the creation of brand awareness instead of focusing solely on search ranking and/or traffic is still relatively rare, especially when it comes to work related to Arabic language and/or Gulf Cooperation Council (GCC) region. This research paper aims to fill that void through exploring the relationship between four often mentioned SEO tactics such as content optimization, link building, technical SEO and keyword optimization/ accessibility and brand awareness among ecommerce platform users within GCC market.

2. Literature Review and Hypothesis Development

2.1. Brand Equity and Brand Awareness

Brand equity can be defined as the extra value provided by a brand name to a product or service other than the functionality of the product or service. Brand equity is described by Aaker (1991) as an intangible multi-dimensional concept that involves four dimensions of brand awareness, brand quality, brand associations, and brand loyalty and considers brand awareness to be the basic element among all these dimensions. Keller (1993) further clarifies the definition of brand equity with the help of the customer-based brand equity (CBBE) model wherein brand awareness is considered to include two inter-related components of brand recognition, the consumer's capability to recognize previously encountered brands when a cue is provided to him/her, and brand recall, the consumer's capability to retrieve brands from his/her memory without any cue. Based on the definitions of brand equity by Aaker and Keller, Yoo and Donthu (2001) developed and validated a multi-dimensional consumer based brand equity scale which provides evidence about the empirical separability of brand awareness and associations.

The use of digital and social media has complemented rather than supplanted this classical approach. According to Kim & Ko (2012), social media

marketing is positively related to value equity, relationship equity, and brand equity for luxury brands' customers, suggesting that digital interaction points can be significant determinants of brand equity outcomes. Another interaction point is the search engine, which plays a role here as search results often show brands to users; hence, the brand's digital footprint can either enhance or hinder its recognition and recall ability.

2.2. Search Engine Optimization as a Digital Marketing Capability

The term SEO can be defined as a number of methods designed to improve the ranking of a site in search results. These involve producing and organizing relevant content, building good links to the site, optimizing for the proper crawl and index of the site, as well as using proper search terms that match users' search (Google, 2024). In relation to SEO, Chaffey and Ellis-Chadwick (2019) state that good content will be useful both in relation to the SEO and in relation to the onsite experience of the user. The SEO Starter Guide from Google stresses that content relevance, technical accessibility, and credible links make a search engine and users understand and trust a site (Google, 2024). Goodwin (2023) adds that the experience, expertise, authoritativeness, and trustworthiness (E-E-A-T) of a site's content are becoming more influential in SEO.

Empirical evidence from earlier research backs up the inclusion of SEO as an antecedent to brand awareness as opposed to being a mere indicator of traffic. According to Kurniadi & Saputra (2024), SEO positively impacts brand awareness in a healthcare services environment. Ahmad et al. (2024) establish positive correlations between components of SEO strategy such as content, keywords, and links and online brand positioning among entrepreneurs within Malaysia. Daoud et al. (2024) have also found statistical association between keyword, technical, and off page SEO and website ranking results.

2.3. Content Optimization and Brand Awareness

Content optimization deals with the clarity, relevancy, format, and timeliness of the website's content, which includes product description, categorization pages, and additional articles. Clear and up-to-date information will help both search engines and visitors understand what kind of product or service an online business provides, increasing the chances of its recognition, understanding, and memorizing (Goodwin, 2023; Al-Omari, 2022; Abdel Azim et al., 2024).

H1: Content optimization has a positive, statistically significant effect on brand awareness.

2.4. Link Building and Brand Awareness

Link building is the process of acquiring links from other, more preferable and topic-related sites. Apart from the function of influencing SEO ranking, credible links from external sites will introduce new users to the brand and provide it with credibility (Google, 2024). Ahmad et al. (2024) list the link-building strategies among the factors that influence the online positioning of a brand, which corresponds to the opinion that brand visibility is determined by its representation on the network of external credible sources.

H2: Link building has a positive, statistically significant effect on brand awareness.

2.5. Technical SEO and Brand Awareness

Technical SEO includes the performance of the website, its speed of loading, mobility, and technical access. This determines the user experience when the search result is clicked, with a poor-performing site hindering the customer process and eroding the benefits gained from the SEO efforts, while a faster and mobile-friendly site will enhance the experience and contribute to better brand perception (Google, 2024). According to Daoud et al. (2024), technical SEO is statistically correlated with website ranking, thus serving as a reason to expect the correlation between technical SEO and brand outcomes as well.

H3: Technical SEO has a positive, statistically significant effect on brand awareness.

2.6. Keyword Optimization/Accessibility and Brand Awareness

Keyword optimization entails the discovery of keywords and phrases that accurately capture the nature of how users search and the integration of those terms in such a way that the brand's pages come up for the right searches. As the worth of a keyword-driven impression with regards to branding relies on the ability of the content behind it to meet the searcher's needs (McCoy, 2023), keyword techniques might prove insufficient for brand building as the results could lack credibility without being backed by good content and other aspects.

H4: Keyword optimization/accessibility has a positive, statistically significant effect on brand awareness.

2.7. Conceptual Framework

SEO Strategy as an independent variable is measured via its four dimensions which include: content optimization, link building, technical SEO and keyword optimization/ accessibility. Brand Awareness as the dependent variable will be operationalized using brand recognition and brand recall. This follows Keller's (1993) definition of brand awareness. The relationship between these variables is illustrated in figure 1 below.

Figure 1: Conceptual Model of the Study

SEO Strategy (IV) • Content Optimization • Link Building • Technical SEO • Keyword Optimization / Accessibility	H1 to H4 →	Brand Awareness (DV) • Brand Recognition • Brand Recall
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3. Methodology

3.1. Research Design

The research adopted an explanatory cross-sectional research design, which was designed to explain the extent of SEO adoption and brand awareness expressed by participants. The data collection process was done through one-time

self-administered questionnaires online, and analysis was done with the help of IBM SPSS Statistics, version 26.

3.2. Population and Sample

The population selected for the study comprised people who had made purchases using ecommerce websites that were operational in GCC countries like Saudi Arabia, the UAE, Kuwait, Qatar, Bahrain, and Oman, with the leading ecommerce websites being Shein, Temu, Namshi, Noon, iHerb, and Max Fashion. Since the exact number of the population was not known, a non-probability convenience sampling technique was used whereby the survey form was emailed using social media websites, following the recommended sample size by Sekaran and Bougie (2016) for an unknown population size. This led to the selection of 48 questionnaires after data cleaning.

The majority of the sample was female (72.9%, n=35), while the male participants were 27.1% (n=13). The largest percentage of respondents had ages between 22 and 30 years (43.8%, n=21), while those under the age of 21 years (35.4%, n=17), 31 to 40 years old (12.5%, n=6), and 41 years or older (8.3%, n=4) made up smaller percentages of the sample. In terms of nationality, the highest number of respondents was Saudi Arabia nationals (41.7%, n=20), followed by Bahrain nationals (20.8%, n=10), the United Arab Emirates nationals (12.5%, n=6), Kuwait nationals (10.4%, n=5), Oman nationals (10.4%, n=5), and Qatar nationals (4.2%, n=2). Shein was the ecommerce store most often used by the participants (54.2%, n=26). The complete demographic information is shown in Table 1.

Table 1: Demographic and Usage Profile of Respondents (N = 48)

Characteristic	Category	n	%
Gender	Female	35	72.9
	Male	13	27.1
Age	Under 21 years	17	35.4
	22 to 30 years	21	43.8
	31 to 40 years	6	12.5
	41 years or older	4	8.3
Country	Saudi Arabia	20	41.7
	Bahrain	10	20.8
	United Arab Emirates	6	12.5
	Kuwait	5	10.4
	Oman	5	10.4
	Qatar	2	4.2
Most used store	Shein	26	54.2
	Temu	10	20.8
	Namshi	4	8.3
	iHerb	3	6.3
	Max Fashion	3	6.3
	Noon	2	4.2

Note. All figures are reproduced from the original dataset (N = 48).

3.3. Measures

The questionnaire consisted of 25 questions that had three components namely; demographic and usage questions, SEO strategy questions, and brand awareness questions. The responses were collected on a five-point Likert Scale where 1 is for strongly disagree and 5 is for strongly agree. The measure of SEO strategy had four categories namely content optimization, which had 6 questions, link building with 2 questions, technical website performance/speed with 2 questions, and keyword strategy with 3 questions. The measure of brand awareness had two categories namely brand recognition with 4 questions and brand recall with 4 questions.

3.4. Validity

Face validity was determined using the judgment of six experts in marketing, research method, statistics, and psychology along with one other expert in strategic management. The results of the panel led to the restructuring of the questionnaire before the start of data collection. The construct validity of the scale was then determined using the Pearson correlation between the items and the dimensions, as well as the dimensions and the total scale scores. The dimension-total correlations were between .568 (link building) and .876 (content optimization), all of which exceeded the minimum criterion of .40 (Table 2).

Table 2: Dimension to Total Score Correlations (Construct Validity)

Dimension	Correlation with total score
Content optimization	.876
Link building	.568
Technical SEO (site speed/performance)	.630
Keyword optimization/accessibility	.721
Brand recognition	.723
Brand recall	.722

3.5. Reliability

Internal consistency reliability was calculated through Cronbach's alpha. As can be seen from Table 3, brand recognition ($\alpha = .768$), content optimization ($\alpha = .733$), and brand recall ($\alpha = .731$) reached satisfactory to good internal consistency reliability levels. On the other hand, link building ($\alpha = .571$), technical SEO ($\alpha = .519$), and keyword optimization/accessibility ($\alpha = .462$) did not exceed the usual .70 level, which is understandable considering the relatively small number of items (only two or three) within their respective scales and relatively small sample size.

Table 3: Internal Consistency Reliability (Cronbach's Alpha)

Dimension	Items	Cronbach's α
Content optimization	6	.733
Link building	2	.571

Technical SEO (site speed/performance)	2	.519
Keyword optimization/accessibility	3	.462
Brand recognition	4	.768
Brand recall	4	.731

3.6. Statistical Assumptions

The test of multicollinearity between the SEO variables was done with variance inflation factors (VIF) and tolerance. The VIF value was between 1.016 and 1.132 while tolerance values were between .883 and .984, all of which fall within the suggested limits of Gujarati & Porter (2010), hence absence of any significant multicollinearity amongst the predictors. Test of normality involved skewness and kurtosis where skewness of the study variables was within ± 3 at values ranging from about .68 to .47 (all negative).

3.7. Data Analysis Procedure

The analysis involved use of frequencies and percentages to describe demographic characteristics of participants; mean and standard deviation to find the degree of agreement of respondents on each construct; one sample t-test to compare construct means against the neutral value of the five-point scale (3.00); correlation to assess the validity; reliability using Cronbach's Alpha; VIF, tolerance, skewness, and kurtosis to examine assumptions of regression and finally regression to determine the effect of four SEO constructs on brand awareness.

4. Results

4.1. Descriptive Results

As is shown in Table 4, the four dimensions of SEO received high mean scores, which were categorized under a three level scale interpretation (low: 1.00 – 2.33; moderate: 2.34 - 3.67; high: 3.68 – 5.00). The highest mean score among the four dimensions was in link building ($M = 4.49$, $SD = .54$), followed by content optimization ($M = 4.38$, $SD = .42$), keyword optimization/ accessibility ($M = 4.31$, $SD = .58$), and finally technical SEO ($M = 4.30$, $SD = .83$). One sample t tests showed that the four means were significantly above the neutral point of 3.00 ($p < .001$).

Table 4: Descriptive Statistics and One Sample t Test Results for SEO Dimensions

SEO Dimension	M	SD	t	Rank
Link building	4.49	.54	19.08	1
Content optimization	4.38	.42	22.93	2
Keyword optimization/accessibility	4.31	.58	15.52	3
Technical SEO	4.30	.83	10.87	4

Note. All t values are significant at $p < .05$ (critical $t \approx 1.98$, $df = 47$) against the neutral midpoint of 3.00.

Brand awareness was also rated very high overall ($M = 4.49$). The higher rated dimensions were those relating to brand recognition ($M = 4.65$, $SD = .31$, $t = 37.10$, $p < .001$) and then brand recall ($M = 4.34$, $SD = .60$, $t = 15.39$, $p < .001$;

Table 5). With regard to individual items, the most highly rated brand recognition question had to do with differentiating the brand from other competing brands ($M = 4.77$) and the most highly rated brand recall question had to do with the reputation of the brand ($M = 4.56$).

Table 5: Descriptive Statistics and One Sample t Test Results for Brand Awareness Dimensions

Brand Awareness Dimension	M	SD	t	p
Brand recognition	4.65	.31	37.10	< .001
Brand recall	4.34	.60	15.39	< .001
Overall brand awareness	4.49			

4.2. Hypothesis Testing

The four SEO dimensions were considered together in the regression model as predictors for brand awareness. There was significance in the overall regression model, $F(4, 43) = 28.849$, $p < .001$, which accounted for 72.9% of the variation in brand awareness ($R = .854$, $R^2 = .729$, adjusted $R^2 = .703$, SE of estimate = .193; see Table 6). It can thus be concluded that the first hypothesis is true.

Table 6: Regression Model Summary

Statistic	Value
R	.854
R^2	.729
Adjusted R^2	.703
$F(df_1 = 4, df_2 = 43)$	28.849
p	< .001
Standard error of the estimate	.193

For the predictors at the individual level, out of the four predictors of SEO, three proved to be significant and positive predictors. The three significant predictors were content optimization ($\beta = .578$, $p < .001$), link building ($\beta = .396$, $p < .001$), and technical SEO ($\beta = .360$, $p < .001$). However, keyword optimization/accessibility turned out to be an insignificant predictor ($\beta = .018$, $p = .835$).

Table 7: Regression Coefficients and Hypothesis Testing Results

Hypothesis / Predictor	B	SE	β	t	p	Decision
H1: Content optimization	.491	.071	.578	6.939	< .001	Supported
H2: Link building	.259	.054	.396	4.763	< .001	Supported
H3: Technical SEO	.153	.034	.360	4.493	< .001	Supported
H4: Keyword optimization/accessibility	.011	.051	.018	.210	.835	Not supported

4.3. Summary of Findings

Overall, the proposed model connecting SEO strategy with brand awareness was highly supported, with SEO practices collectively accounting for close to three-quarters of the variation in brand awareness. Out of the four SEO practices considered, content optimization had the biggest impact independently, followed by link building and technical SEO. The keyword

optimization/accessibility practice, even though scoring high individually ($M = 4.31$), lost its statistical significance in terms of the independent relationship between it and brand awareness.

5. Discussion

These findings offer empirical evidence for conceptualizing SEO as a brand-building capability and not only a tool for driving traffic in line with the wider perspective of digital marketing offered by Chaffey and Ellis-Chadwick (2019), as well as existing research that has explored the association between SEO and brand recognition as mentioned in the literature review (Ahmad et al., 2024; Daoud et al., 2024; Kurniadi & Saputra, 2024). The emergence of content optimization as a variable with the highest coefficient is congruent with the theoretical consideration of the role of content quality, expertness, and credibility as the key precursors to search effectiveness and users' perception (Goodwin, 2023) and in line with the idea put forth by Aaker (1991) and Keller (1993).

Positive influence of link building is consistent with the assumption that inbound links from reputable external sources serve as third-party endorsements, allowing for the extension of a brand's digital presence and its borrowing of credibility (Google, 2024; Ahmad et al., 2024). Positive influence of technical SEO, in its turn, implies that speed, accessibility, and mobile-friendly nature of a site enhance user experience after clicking on a result and, therefore, ensure the preservation of created value.

The insignificant influence of keyword optimization/accessibility is an interesting result to discuss. The lack of significance is not meant to imply that the use of keywords does not matter for search efficiency per se. Instead, once content, link, and technical factors were controlled for, the behaviors related to the use of keywords measured in the current research did not add any further information regarding brand recognition. The first possible explanation for such results is based on the work of McCoy (2023). According to this idea, keywording affects whether a website is seen but has little impact on the processes of remembering and recognizing it, since they are determined by the contents people see after the initial contact. Another possible explanation is related to the relatively low reliability of the keyword subscale ($\alpha = .462$).

6. Conclusion, Limitations, and Recommendations

6.1. Conclusion

This paper offers evidence in numeric form to confirm that the use of SEO strategy as a means to optimize content, build links, engage in technical SEO activities, and optimize keywords/accessibility is positively related to the level of brand awareness of the ecommerce users surveyed in the GCC market. Of all four variables, the three former are confirmed as being statistically significant individually while the latter was not found to be so. Collectively, these results

imply that SEO should be viewed as a brand building tool which derives its strength from good content and technology rather than just keyword tactics.

6.2. Theoretical and Managerial Implications

From a theoretical perspective, the results expand the brand awareness model of Aaker (1991) and Keller (1993) to the domain of internet search, providing empirical support for the association between distinct SEO techniques and both recognition and recall. In addition, the research contributes to the literature by identifying a new channel of digital influence of brand equity in Kim & Ko (2012).

Managerially, ecommerce firms operating in the GCC market should prioritize substantive content improvements, such as clear product descriptions, well structured pages, and regularly updated content, as the practice most strongly associated with brand awareness in this sample. Firms should also pursue link building strategies that favor relevance and credibility over sheer link volume, while continuing to invest in technical performance. Keyword research should be integrated with content strategy and search intent analysis rather than treated as a standalone branding lever.

6.3. Limitations

A number of caveats need to be kept in mind regarding the conclusions drawn and the generalization of these findings. Firstly, the size of the sample is relatively small (N=48), and the sample was drawn via nonprobability convenience sampling, thus lowering the statistical power of the study. Secondly, all measurements are self-reported perceptions and not objective indicators of anything. Thirdly, since the design of the study was cross-sectional, causation cannot be inferred. Fourthly, Cronbach's alpha coefficient of three out of four SEO scales used in this study is below the commonly accepted level of .70. Fifthly, there are two minor inconsistencies in the labeling of tables of the source paper - labelling of the two sub dimensions of brand awareness scale and of one country name in the demographics table. These were clarified using the detailed tables behind the figures presented and the announced scope of the study - GCC.

6.4. Recommendations for Future Research

Future research can benefit from using bigger stratified probability samples in all GCC countries to increase the power of the statistics and enhance its representativeness. Moreover, it will be useful to verify the SEO and brand awareness measures by means of exploratory and confirmatory factor analysis and add more items to the shortened subscales for improving their reliability. Where possible, objective SEO metrics including organic traffic, keyword rankings, backlinks, and Core Web Vitals should be used as complementary data sources along with self-report information.

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