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Google Marketing vs Facebook Promotion – Which Digital Marketing Tool delivers maximum value to Startups? – A Comparative Analysis

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Abstract

For startup companies who have constraints of funds, digital marketing is a viable alternative to reach out to customers, create awareness about their products and services and earn revenues by converting leads to actual sales. There is a wide gamut of tools to choose from and the challenge is to understand which tools are more viable and effective. Our study does a comparative analysis between two major tools like Google and Facebook to draw inferences and understand which one is more effective. Our in-depth study of primary and secondary data shows that Facebook has an edge over Google in digital marketing, with reference of adoption and implementation of digital marketing campaign.

Keywords – Google Marketing, Facebook Marketing, Startup Companies, Structural Equation Modelling (SEM)

Introduction

A startup is a company that is in the inception stage of business (Grant & James, 2020). A handful of startups like Cred and Meesho have got sound funding and are able to go for aggressive advertising (Yadav & Sabhavat, 2021).. However, most other startups have to manage with their own funds and do not have sufficient financial resources for advertising in a big way. Most of the advertising campaigns that run in print and electronic media costs lakhs and crores and are beyond the reach of newly commenced startups. Hence, they are mostly constrained in using traditional media and are looking at viable alternatives like digital marketing (Teixeira, et al., 2017).

Digital Marketing is mostly dominated by companies like Google, Facebook, Twitter, LinkedIn, Tumblr, Snapchat and Pinterest (Carvil & Taylor, 2015). Google has tools like Keyword, Planner, AdWord Planner and Google Analytics (Shenoy & Prabhu, 2016). We can do search engine optimization (SEO) using Google Keyword Planner, search engine marketing (SEM) by bidding for keywords through

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Google AdWord Planner. Google Analytics helps us to track if we are running the digital marketing campaign in the right way and the effectiveness of our digital marketing campaign. Google also owns the video sharing tool called YouTube and hence is able to offer both text search and video search.

Google charges the customer on different models for the promotion services they offer. Some of the models are CPC (Cost-Per-Click), CPM (Cost-Per-Mille), CPV (Cost-Per-View) and CPA (Cost-Per-Acquisition). Google usually charges the customer only after the goals have been achieved (Anand, 2015). The CPC Model is popular for banner ads while the CPM and CPV Models are popular for video ads in YouTube.

Facebook offers a platform to run text, image and video ads. Facebook has a tool called Facebook Page. A Facebook Page is different from Facebook Timeline and Facebook Newsfeed. While Facebook Timeline comprises of friends and has a limitation of 5000, the Facebook Page comprises of fans and can have unlimited number of fans (Andreau, et al., 2019)

Facebook Page has options to create profile picture (ideally, a company logo), profile page (to highlight products or services) and button for CTA (call-to-action). The Facebook Page can be promoted using several tools like "Boost a Post", "Get More Messages", "Promote your Page", "Get More Calls", "Get More Website Visitors" and "Get More Leads". These are all paid services. Facebook gives an estimate of how much visibility, penetration and conversions can happen through these tools and charges the customer only after the goals have been achieved (Curran, Graham & Temple, 2011).

The objective of this research paper is to make a comparative analysis between Google Ads and Facebook Campaigns, with special reference to startup companies. The data has been gathered from the sample startup companies using a 7 Point Likert Scale to do a perceptual analysis and validate the findings.

Literature Review

The Technology Acceptance Model or TAM (Davis, 1985) gives two constructs – PEOU (Perceived Ease of Use) and PU (Perceived Utility) that explains whether and when a start-up is likely to adopt the usage of digital marketing tools and technologies. A start-up would probably adopt digital marketing if the entrepreneur feels that she is finding it easy to use and she is getting some tangible benefits by using the tools and technologies pertaining to digital marketing.

In the Technology-Organization-Environment or TOE Framework (Tornatzky and Fleischer, 1990) explains three different elements of a firm's context influence adoption decisions. These are the technological context, the organizational context, and the environmental context. The three together determine the adoption of new technology by organizations and entrepreneurs. The same theory applies to the adoption of digital marketing tools and technologies by startups.

The Theory of Reasoned Action (Fishbein and Azjen, 1975) is used to explain and predict behaviour based on attitudes, norms and intentions. This theory explains whether the start-up company owners

shall have an intention to adopt tools and technologies of digital marketing based on certain norms and their attitude towards adopting technology for marketing their products and services.

For our research, we have taken the constructs and scale items from each of the models to develop the hypotheses that help us to do a comparative analysis between Google Ads and Facebook Campaigns to understand which one is more beneficial for the startup companies.

Table 1: Definition of the Constructs

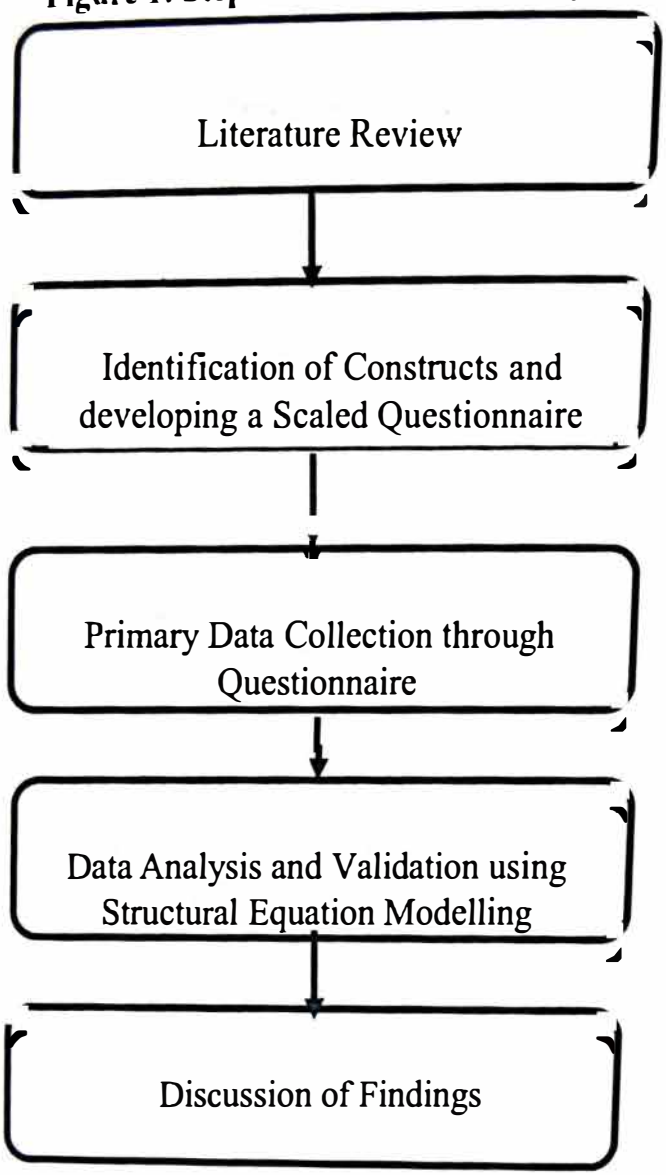
Constructs	Definitions	Source
Perceived Ease of Use(PEOU)	Startups are likely to adopt tools of Google or Facebook based on which one is easier to use	Davis, 1989
Perceived Usefulness (PU)	Startups are likely to adopt tools of Google or Facebook based on which one gives more benefits	Davis, 1989
Technological Context (TC)	Startups are likely to adopt tools of Google or Facebook based on their understanding of technology	Tornatzky and Fleischer, 1990
Organizational Context (OC)	Startups are likely to adopt tools of Google or Facebook based on the strategic fit with organizational goals	Tornatzky and Fleischer, 1990
EnvironmentalContext (EC)	Startups are likely to adopt tools of Google or Facebook based on what competitors are using and which one is more popular	Tornatzky and Fleischer, 1990
Intention to Adopt Technology (IAT)	Perceptual Factors that motivate startups to choose between Google and Facebook for digital marketing and promotion	Fishbein and Azjen, 1975

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Research Process

The research study began with an exhaustive literature review on the effectiveness of using Google an Facebook studies. We then made more indepth study on the experience of startups who have used tools o digital marketing like Facebook and Google.

Figure 1: Steps of the Research Study



We did study on several models like technology acceptance model or TAM (Davis, 1989), technology organization-environment or TOE Framework (Tornatzky and Fleischer, 1990) and theory of reasoned action (Fishbein and Azjen, 1975). We identified the constructs and developed the scales for our study from the research work of the eminent scholars. The questionnaire was pretested through a pilot study to understand the validity and reliability. Then the questionnaire was administered on 100 startup companies to obtain the data for research. The data was analysed using structured equation modelling

(SEM) using the SmartPLS software. The findings of the exploratory phase are discussed in detail and the hypothesis development is given in the following sections.

Perceived Ease of Use (PEOU)

The adoption of technology by a company depends to a large extent on how easy it is to use the tools. The software and technologies that have a simple interface and require minimal training to use are more acceptable than the software and technologies that need a complicated process and high end training (Davis, 1989).Thus we hypothesize that:

H1: The tools of Facebook are much easier to use in comparison to Google tools.

Perceived Usefulness (PU)

When companies compare different tools and technologies for adoption, the decision making hinges on the benefits that are likely to accrue. The software, tools and technologies that give more benefits will have more acceptance than the tools that offer less benefits (Davis, 1989). Thus, we posit:

H2: The visibility, engagement and conversions obtained through Facebook tools are more than that obtained by Google tools.

Technological Context (TC)

The complexity or simplicity of the technology plays a key role in the adoption of tools and technologies. Also, the financial investment needed and the implementation process is also taken into consideration while choosing the appropriate technology (Tornatzky and Fleischer, 1990). This leads to the following hypothesis:

H3: Facebook provides more sophisticated technological tools than Google.

Organizational Context (OC)

Organizations have legacy systems that are taken into consideration while adopting any new technology. Software, tools and technologies that have a better strategic fit with the legacy systems will have a more acceptance as companies do not want a complete overhaul of existing systems. They would rather accept a stage-by-stage upgradation technology (Tornatzky and Fleischer, 1990). Hence, we assert that:

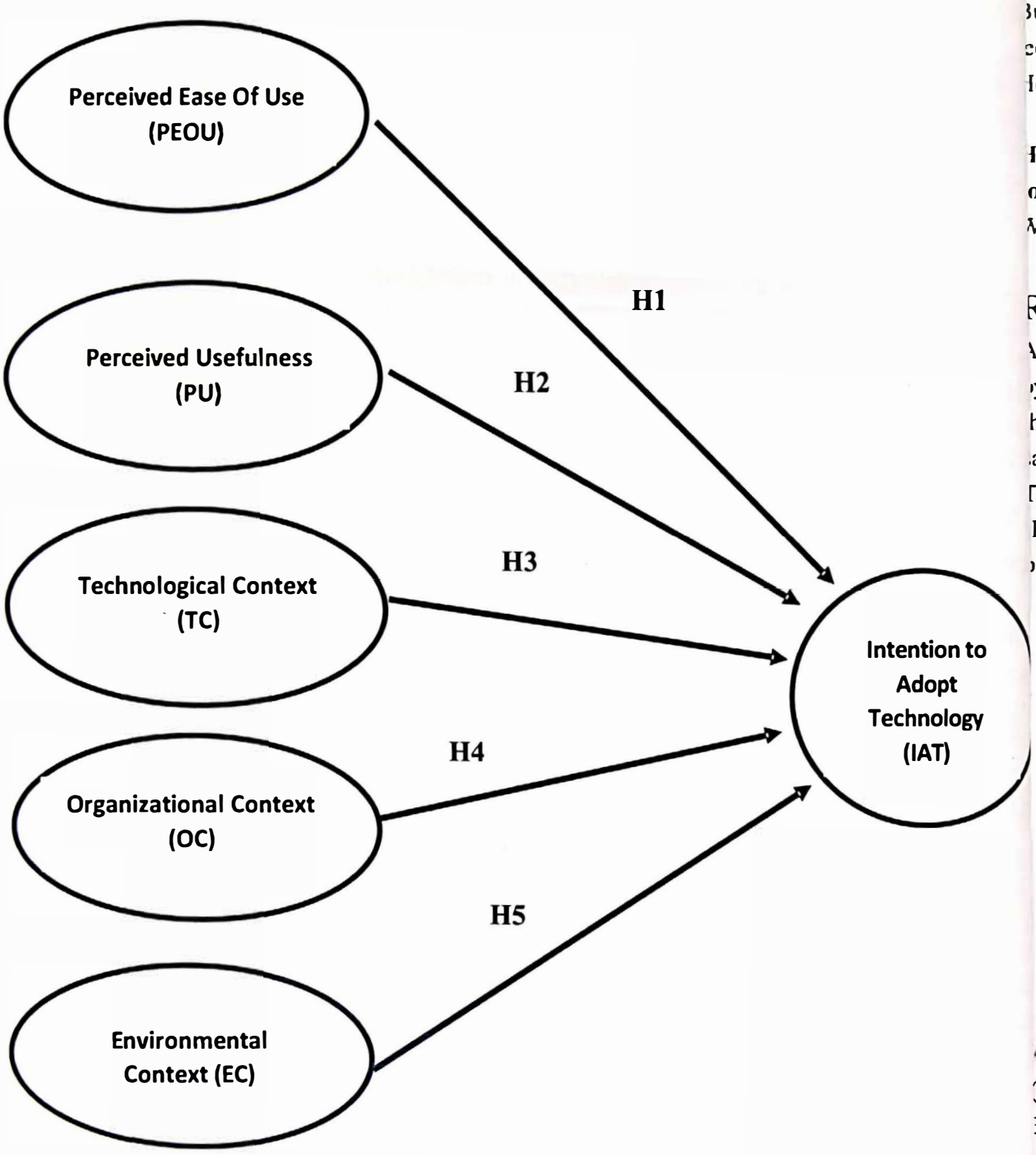
H4: Facebook provides tools that synchronize more closely with organizational context than Google.

Environmental Context (EC)

The business environment plays a key role in adoption of technology. Businesses which are highly competitive will see adoption and acceptance of sophisticated and expensive software, tools and technologies.

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Figure 2: Conceptual Model



Business environment which are less competitive see the adoption of low end and less expensive technology systems technology (Tornatzky and Fleischer, 1990).
Hence, we propose the hypothesis:

H5: Facebook tools provide more competitive advantage in environmental context than Google tools

We have illustrated the proposed conceptual model in above Figure 2.

Research Framework and Methodology

A study was designed to conduct comparative analysis between usage of Google tools and Facebook tools by startup companies. The data was collected through personal e-mails and Google forms were sent to the entrepreneur or manager of the start-up. The data was collected from 100 start-ups using snowball sampling method. The data was collected during the period 15th October, 2020 to 25th December 2020. This study used scales that were used in earlier research studies using technology acceptance model (Davis, 1989), technology-organization-environment model (Tornatzky and Fleischer, 1990) and theory of reasoned action model (Fishbein and Azjen, 1975).

Table 2: Business Period of Sample Companies

Year of Commencement	Number of Companies
2019	23
2018	15
2017	12
2016	19
2015	14
2014	17
Total	100

A seven-point scale was used to measure the constructs. All the hypotheses were tested using SEM (Structured Equation Modelling) based on PLS (Partial Least Square) using SmartPLS software Version 3.0 (Ringle et al., 2015). SmartPLS software is gaining importance in testing structural equation models and estimating complex cause-effect relationship models with latent variables. This software is very much useful in conditions where the sample size is less and the data is not normally distributed (Hulland, 1999).

Table 3: Nature of Business of Sample Companies

Nature of Business	Number of Companies
Software	23
Education	14
Healthcare	5
Finance	11
Hospitality	17
FMCG	21
Chemicals	9
Total	100

Table 4: Turnover of Sample Companies

Turnover of Companies (in Rs lakhs)	Number of Companies
0-5	31
5-10	22
10-20	17
20-50	19
50-100	11
Total	100

Findings

As the table 5 depict, the Cronbach Alpha is more than 0.7 in all the cases for all the constructs, and th composite reliability is also above 0.8 in all the cases, which is higher than the recommended value of 0. (Bagozzi and Yi, 1988), which means that constructs are having good reliability and internal consistenc In PLS-SEM, the composite reliability is recommended instead of Cronbach Alpha (Hair et al., 2012) hence we have also taken an estimate of the same. To check their convergent validity we have figure-ou the Average Variance Extracted (AVE) value, and as listed in Table 5, all the AVE values of 6 construct are above the threshold value of AVE (greater than 0.5).

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Table 5: Composite Reliability, Average Variance Extracted (AVE) and Cronbach Alpha Coefficient

Construct	Composite Reliability	Average Variance Extracted	Cronbach Alpha
Perceived Ease of Use	0.991	0.841	0.875
Perceived Usefulness	0.981	0.799	0.92
Technological Context	0.853	0.842	0.776
Organizational Context	0.921	0.673	0.845
Environmental Context	0.876	0.785	0.764
Intention to Adopt Technology	0.832	0.745	0.834

Table 6: HTMT Values

Construct	EU	HR	EXP	HROI	GCP	HA
PEOU						
PU	0.375					
TC	0.472	0.612				
OC	0.512	0.473	0.363			
EC	0.635	0.375	0.464	0.538		
IAT	0.415	0.411	0.372	0.293	0.623	

PEOU: Perceived Ease of Use (PEOU); PU: Perceived Usefulness; TC: Technology Context; OC
Organizational Context; EC: Environmental Context; IAT: Intention to Adopt Technology

To establish the discriminant validity of the conceptual model, we have checked the HTMT value of th constructs, given in Table 3. As per the table 3, HTMT value is significant as the values for all th constructs are coming less than .85.

Table 7: Summary of Results from Structural Model

Hypothesis	Factor	Standardized Estimates	p-value	Hypothesis Verification
H1	PEOU→IAT	0.25	< 0.01	Supported
H2	PU→ IAT	0.42	< 0.01	Supported
H3	TC→ IAT	0.35	< 0.01	Supported
H4	OC→ IAT	0.27	< 0.01	Supported
H5	EC→ IAT	0.39	< 0.01	Supported

PEOU: Perceived Ease of Use (PEOU); PU: Perceived Usefulness; TC: Technology Context; OC
Organizational Context; EC: Environmental Context; IAT: Intention to Adopt Technology

All the formulated hypotheses – H1, H2, H3, H4, and H5 were tested using PLS analysis. For thi research, we have used bootstrapping of 5000 re-samples and 257 cases per sample to determine th basis for confidence intervals (Ringle et al., 2012).

The next step comprises of estimating the relationships between the various constructs under study. Th various constructs are attitudes, intentions, reasons and values.

The findings show that all the hypotheses are validat ed.

Discussion

Our in-depth study of primary and secondary data shows that Facebook has an edge over Google i digital marketing, with reference of adoption and implementation of digital marketing campaign. This i

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primarily because Facebook tools are relatively more easy to use and also offer more benefits in terms of visibility, engagement and conversion. The technological interface of Facebook is also much simpler and easy to use. Facebook is more acceptable in organizational context as people who are not expert in technological tools canunderstand and use the same. Facebook provides competitive advantage as it has opportunity for creativity and innovation.

For startup companies who have constraints of funds, digital marketing is a viable alternative to reach out to customers, create awareness about their products and services and earn revenues by converting leads to actual sales. There is a wide gamut of tools to choose from and the challenge is to understand which tools are more viable and effective. Our study does a comparative analysis between two major tools like Google and Facebook to draw inferences and understand which one is more effective.

Limitations and Future Scope

The restrictions due to pandemic made it difficult to collect the data in a personal mode and instead use e-mails and google forms to elicit the responses from the targeted respondents. The study has been conducted only on a limited number of companies, and needs a more in-depth study by increasing the scope and extending the same to other areas of the country. In future studies, the data from Google Analytics and Facebook Insights should be also considered to conduct the analysis. We have not taken the data at this stage as this is a preliminary study.

References

Anand, S. (2015). Online advertising: a new trend of selling in India, South Asian Journal of Marketing & Management Research, 5 (3), 16-24.

Andreou, A., Silva, M., Benevenuto, F., Goga, O., Loiseau, P.,& Mislove, A. (2019). Measuring the Facebook advertising ecosystem. NDSS 2019-Proceedings of the Network and Distributed System Security Symposium, 3(2), 1-15.

Carvill, M., & Taylor, D. (2015). The Business of Being Social 2nd Edition: A practical guide to harnessing the power of Facebook, Twitter, LinkedIn, YouTube and other social media networks for all businesses. Crimson, 5(2), 13-24.

Curran, K., Graham, S., & Temple, C. (2011). Advertising on Facebook. International Journal of E-business development, 1(1), 26-33.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. Management Science, 5(8), 982-1003.

Grant, M & James, M (2020). Startup. Investopedia. Available at: https://www.investopedia.com/terms/s/startup.asp (accessed on 20th April, 2021)

Shenoy, A., & Prabhu, A. (2016). Introducing the Google Tools Suite. In Introducing SEO Apress, Berkeley, CA, 37-55.

Teixeira, S., Martins, J., Branco, F., Goncalves, R., Au-Yong-Oliveira, M., & Moreira, F. (20
October). A theoretical analysis of digital marketing adoption by startups. International Conference
Software Process Improvement. Springer, 4 (3), 94-105.
Tornatzky, L. G., & Fleischer, M (1990). The processes of technological innovation. Lexington, M
Lexington Books, USA, 35-44.
Yadav, R. A., & Sabhavat, S. (2021). Social Media Marketing and Customer Engagement. PalAr
Journal of Archaeology of Egypt/Egyptology, 18 (3), 697