Macrothink Institute™

International Journal of Accounting and Financial Reporting
ISSN 2162-3082
2017, Vol. 7, No. 2

Does Sustainability Increase Financial Performance? A Quantitative Comparison between the S&P 500 and S&P 500 ESG Factor Weighted Index

Sean Stein Smith

Assistant Professor, Department of Economics and Business, Lehman College

City University of New York (CUNY), USA

Received: August 29, 2017 Accepted: September 11, 2017 Published: October 10, 2017

doi:10.5296/ijafr.v7i2.11774 URL: https://doi.org/10.5296/ijafr.v7i2.11774

Abstract

As the business environment continues to be influenced by stakeholder forces, including sustainability reporting and sustainable operations, a question that continues to be asked is if such a mindset delivers financial returns. While there is increased interest and attention on the areas of sustainability reporting and financial returns, quantitatively addressing this question is a complicated task. Leveraging the proliferation of ETFs, this analysis compares the performance of the S&P 500 ESG Factor Weighted Index versus the S&P 500 during the period 2014-2016. As business decisions are driven in large part by the financial performance of the organizations, this research is applicable to both practitioner and academic members of the accounting community. Additionally, the second aspect of this research attempts to establish a connection between sustainability, integrated reporting, and begin the analysis whether or not there appears to be a connection between performance and integrated reporting.

Keywords: integrated reporting, sustainability, management accounting, finance, accounting

1. Purpose

The purpose of this research focuses on two distinct areas focusing on the intersection of accounting, sustainability, and the reporting process. In a business environment increasingly digitized, influenced and guided by financial and non-financial stakeholders, and focused on developing new business models, there is evidence that traditional reporting models are insufficient. Developing new reporting models, templates, and disclosure frameworks appears to represent an evolution in how management professionals, and organizations, are addressing the need, requirements, and expectations of stakeholders in a multi-faceted business environment. The analysis taking place in this research focuses not only on the existing literature and landscape associated with sustainability and sustainability reporting, but also quantitatively examines the relationship between sustainability reporting and financial performance. Leveraging publicly available information, specifically the S&P 500 ESG Factor Weighted Index, an analysis is performed comparing the performance of this index versus the S&P 500 as a whole. Comparing publicly available information such as these records allows for a quantitatively based examination of any differences in performance of organizations that focus on sustainability reporting versus comparable organizations that do not.

2. Hypotheses

The core hypotheses to be analyzed in this research focus on the financial outcomes and performance of the S&P ESG index during the 3-year time period ending in 2016 (2014-2016).

Two hypotheses to be tested focusing on this performance are as follows:

H1: The aggregate returns of the S&P 500 ESG Factor Weighted Index, during the time period 2014-2016, will be in excess of the returns on the S&P 500 index as a whole.

H2: The ten largest organizations within the S&P 500 ESG Factor Weighted Index that have obtained the greatest returns during this 3-year period (2014-2016), will use integrated financial reporting to disclose these results to the marketplace.

3. Introduction

Sustainability represents a concept and reality that continues to heavily influence the academic, practitioner, and market debate and conversation. The forces of sustainability, environmental reporting, and the dynamics that continue to challenge the status quo manifest themselves in many ways. Firms and management teams continue to adopt different disclosure and reporting requirements in order to effectively integrate sustainability into corporate reporting (Joshi & Yue, 2016). Depending on the specific role of the organization, the industry in question, and the role of the practitioner the specific implications of sustainability will differ, but several relevant trends remain consistent. First, the role of sustainability with regards to strategic decision making is difficult to ignore in the current environment, especially with regards to longer term investments and decision making. Regardless of the organization or industry in question several forces require that management professionals incorporate sustainability concepts and initiatives into current and future oriented business operations. Coordination between different business segments and industry lines increasingly depends on effective use of sustainability, both within operations and in disclosure requirements (Nayak, 2017). Demographic shifts, including both millennial and Gen-Z, create a business environment in which employees, consumers, and potential future clients expect and require organizations to operate in a sustainable and environmentally conscious manner.

Accounting analytics, the integration of technology into business decision making from both a tactical and strategic perspective, is yet another trend generating ripple effects and currents throughout both organizations and the broader business landscape. In order to produce said sustainability reports, management control systems and management accounting professionals must evolve alongside the marketplace at large (Herremans & Nazari, 2016). Focusing merely on the effect of technology and analytics in and of themselves, only presents an incomplete view of the true nature that said changes are having on organizations. Improved data analytics and technology systems, including those delivering information from front end systems through to senior management professionals, is an area in which organizations can quantitatively deliver value to the market. Although analytics is often thought of as a technological change to the business environment, it is also imperative that researchers and practitioners alike focus on the implication of analytics for broader changes to how decisions are made.

Third, and perhaps most importantly for implications and implementation of data analytics is the role that data scientists, accounting professionals, and finance professionals can play in the actualization of said concepts. Accounting is rapidly becoming much more than just traditional financial reporting and data analysis. Particularly as it pertains to integrating sustainability, management must fully embrace and support sustainability, and sustainable behaviors within operations and reporting tools (Blake, 2016). While such a role and task certainly does generate value for equity and credit holders of the firm, including financial and market analysts, it does appear to be insufficient to fully address the needs of stakeholders. Included in this evolution of the field of accounting is the reality that an increasingly broad stakeholder basis expects a variety of information and data related to organization performance. Stated a different way it is important to recognize the reality that, although financial shareholder and stakeholders represent key end users of organizational data, said users are not the exclusive recipients of information.

4. Methods

Due to the quantitative nature of the data used for this analysis, all necessary information was readily available from public sources. The S&P companies produce and report the results of various sustainability indices on a continuous basis, and said information is available in an open access manner. Exporting this information, both for the S&P 500 ESG Factor Weighted Index and for the S&P 500 index at large, a quantitative comparative analysis is performed in order to better report and test any linkage between the performed of these indices. Utilizing the widely accepted metric of compound annual return (CAGR) a quantitative basis and metric to evaluate the results of these two indices is generated. Additionally, and done by examining the financial reporting disclosure and framework in use at the organizations, the 10 largest constituent organizations that have obtained the best financial performance out of the ESG index are examined to determine whether or not said organizations utilize integrated financial reporting. Blending together a quantitative analysis of financial performance with a qualitative examination of reporting frameworks generates research and research findings that are applicable both academic and practitioner utilization.

5. Literature Review

Sustainability is rapidly moving from a qualitatively focused field of study and analysis to represent a data driven method of competitive advantage in the marketplace. Aiding this evolution and development of the sustainability field are the advances in data collection and technology that can assist management in interpreting organizational information. This challenge, between corporate sustainability guidelines and what different stakeholders require and expect from the organization, can create a disconnect or gap between what is produced and what is expected (Bradford, Earp, Showalter, & Williams, 2017). Sustainability might appear to be, in terms of reporting and disclosure requirements, a traditionally qualitative area of management science and decision making, but it is logical to analyze the effects of sustainability on the organization from a variety of different angles. These forces, specifically sustainability and an enhanced environmental focus from both an internal and external perspective, provide management professionals opportunities to deliver meaningful value to stakeholders.

For example, an organization operating in the fields of consumer products and retail clothing manufacturing might be primarily focused on the linkage between organizational supply chains, the manufacturing facility itself, and the final products. Sustainability, and the ripple effects that operating in an environmentally friendly manner have on corporate governance and decision making, can have effects that echo on both a regional and global basis (Park & Berger-Walliser, 2015). Ensuring consistency with regards to environmental regulations, compliance, and other sustainability issues benefits organizations in several ways, but can also represent challenges linked to the specific type or reporting framework utilized by the organization (Bouten & Hoozee, 2015). First, standard environmental and operational compliance policies ensure a limited amount of unknown violations can persist and permeate the organizations. Isolated and one-off incidents, clearly, are inevitable in any large organization, but with management professionals focused on organizational-wide compliance, the risk of systemic issues will decrease. Second, in term of sustainability information, disclosure, and reporting to external end users, it is important to recognize the reality that organizations do not simply report this information for no tangible benefit.

Reporting said information to the marketplace is important from a variety of perspectives, but one aspect of sustainability information is often overlooked. Framed within a qualitative context, the tangible benefits and results of sustainability can appear to be limited or myopic in nature. A brief analysis, however, of the current business landscape and marketplace, illustrates several examples of organizations that have developed business strategies, and reporting templates. Integrating technology, broader risk management systems within the organization, and global governance issues is increasingly a key role for management, and an area in which management and management accounting can collaborate (Viscelli, Hermanson, & Beasley, 2017). Examining said organizations provides templates and examples of how management teams, working hand in hand with accounting professionals and other quantitative experts, can transform a desire for sustainability data into tangible business concepts. Such an analysis is not presented as a comprehensive or all-inclusive analysis of sustainability reporting and the operational impact of environmental policies. That said, it does illustrate and provide examples of how accounting, management, and externally facing functional groups can collaborate on effective solutions.

5.1 Coca-Cola

The Coca-Cola organization, encompassing both bottling and distribution, represents an organization and field of business clearly dependent on natural resources including water. As part of an initiative, building on the GRI reporting framework focused on sustainability disclosure and reporting, the management team adopted several disclosure and reporting guidelines for water usage reporting. This two-fold approach, centering both on improving the water efficiency of current operations, and the amount of water that is recycled and reused through current operations, benefits end users in a variety of ways. First, delineating and communicating this data to internal and external users provides an opportunity for management to initiate a conversation with stakeholder groups. Second, deadlines and mandates developed and communicated by the organization to the broader marketplace standardize expectations, provide an opportunity for constructive dialogue on the issues, and establishes a benchmark by which results can be judged. While not every entity or organization will be able to develop comprehensive reporting on the issues of water utilization and natural resource recycling, this does provide a template that other management teams might be able to follow.

5.2 Adidas

Although Coca-Cola analyzes sustainability data and information from a particularly focused perspective on water utilization and recycling there are a variety of methods within which financial information and sustainability can become increasingly integrated. Examining the issue from an objective and logical perspective it is important to understand that all initiatives, including sustainability initiatives, must be evaluated within both a financial and operational linked framework. Financial information drive both internal and external decision making and tactics, and it is important to report such information in a manner that is logical, consistent, and comparable. Adidas, representing a contrasting perspective on how to effectively evaluate and report the results of sustainability initiatives, manages the results of sustainability initiatives in a manner reminiscent of portfolio management.

The unique situation in place at Adidas is the result of coordination between the organization, senior management, the Environment Defense Fund (EDF) in order to spearhead sustainability concepts and initiatives at the organization. Managing and implementing projects linked to sustainability and initiatives requires, clearly, that management both have the opportunity and ability to evaluate projects from an operational and financial perspective. It is also clear that not all initiatives, regardless of whether they are linked to sustainability specifically or not, do not always generate positive financial returns during every period. Evaluating several projects as a collective, or portfolio of projects, allows management to reasonable assess the results of projects both over time and over the breadth of the organization.

5.3 Ecomagination

General Electric (GE) is widely known as an international conglomerate with operations that span numerous industries and geographic regions. Following the financial crisis, and the designation of GE as a systemically important financial institution, senior leadership at the organization enacted a strategic shift toward industrially oriented areas. One byproduct of these decisions was the launch and development of a newly created division of the organization, Ecomagination, which focused specifically on integrating sustainability initiatives and terminology into existing industrial operations. The success of Ecomagination perhaps most accurately demonstrates the important of green innovation, or the connection of innovation with sustainability enterprises, that continues to grow and expand throughout the marketplace (Lampikoski, Westerfund, Rajala, & Moller, 2014). Linking together these areas, an emerging area of broader based importance and an area of traditional excellence, assisted in the creation of a new dynamic business. With revenues since inception nearing $100 billion, the financial results clearly demonstrate the financial and operational benefits of embracing sustainability in coordination with other operational activities.

5.4 Developing Metrics

Arguably the single most important challenge to the widespread implementation and proliferation of sustainability related metrics is the reality that many organizations and industries do not have a set of standard metrics that can be used. This represents a critical juncture and intersection point, wherein accounting is increasingly influenced by technology, and technology tools can help accounting professionals produce better and higher quality data (Murthy, 2016). Expanding this increased integration, both within industry and academic research, is a key function of management accounting professionals in an environment increasingly influenced by digitization and technological progress. Metrics, whether they are linked to the financial performance of the firm, or are being used to help evaluate the effectiveness and efficiency of business operations, play a critical role in management decision making. In order to develop metrics that are appropriate, the human capital, specifically employees must be able to be leveraged to address the needs of internal and external users. Adopting a service mindset, and fulfilling the needs of users in a customer oriented manner represents a possible differentiating factor in terms of strategy development and implementation (Green, Lusch, & Hitt, 2017). Metrics provide individuals employed within the organization and individuals working outside of the firm an opportunity to compare information on a consistent basis over time. Especially with regards to an emerging area such as sustainability and other environmentally focused information the ramifications of standardizing reporting and analysis is potentially difficult to overstate. Stated simply, in order to accurately convey both the potential and realities of sustainability on business operations it is imperative that management professionals possess the tools to do so in a consistent and accurate manner.

Building out reporting frameworks, templates, and dashboards for the communication of information to the marketplace is not a new concept, but rather is an idea that is merely being adapted to the current needs of stakeholders. Specifically, the ability of management teams to communicate the information linked to sustainability initiatives, including both the financial and non-financial results of the organization, is critically important to stakeholder relationships and communication. As the role of the modern CFO continues to evolve, develop, and change over time, the expectations and needs of the external environment push the CFO to embrace a broader and more strategic role within the organization (Hasan, 2015). Establishing this relationship, connection, and linkage between what the organization is doing, the information generated by the organization, and how this information is used represents a potential competitive advantage in the marketplace that is increasing more dynamic and fluid in nature. Acknowledging this reality, that the marketplace is changing and evolving at an increasing rate, also presents the following opportunity and challenge for reporting.

Stated at a high level, the purpose of reporting and disclosure is to effectively communicate information between the management team, internal users, and external end users of organizational data. In a business environment increasingly dominated by stakeholders, stakeholder reporting, and stakeholder expectations, it appears that adopting a shared value mindset is increasingly important (de los Reyes, Scholz, & Smith, 2017). Shared value, a concept linked directly to the concepts of stakeholder reporting and stakeholder engagement, appears to be a logical outgrowth of the increased focused organizations place on sustainability and other non-financial reporting.

The specific framework put into effect will differ from industry to industry, and from organization to organization, but the primary effect will be identical. Forming a consistent reporting framework, developing standard methods of communication, and building out appropriate metrics for disseminating these different types of information is critical toward ensuring sustainable buy-in. The development of consistent messaging, metrics, and frameworks also provides an additional benefit in the fact that it helps focus the attention of management on certain specific issues.

5.5 Focusing Information

An ongoing issue and obstacle for management professionals seeking to implement sustainability and other non-financial reporting is the reality that there do exist a large number of frameworks and options for motivated organizations. Sustainability frameworks, industry specific frameworks and reporting structures, and other types of non-financial reporting and analysis create a situation where there is almost too much information and data in the marketplace. Disclosing and reporting meaningful information is particularly important as it pertains to sustainability, as it assists internal and external users to more effectively evaluate investment opportunities (Shank & Shockey, 2016). The impact and influence of corporate governance on organizational decision making cannot be overstated in a business environment increasingly focused on stakeholder engagement and decision making (Lee & Jay, 2015). Selecting one specific area, or a suite of areas within which reporting and information can be focused, assists in focusing management focus as well as the attention of front line personnel tasked with actually developing these metrics. Ensuring employee commitment and engagement, especially when it comes to developing reporting tools, techniques, and metrics, is especially important for emerging areas of importance.

In addition to assisting management professionals to focus efforts and energy on certain specific projects, increased levels of focused and attention will, almost certainly, lead to increased focus and better results. Particularly in an environment where a wider range of stakeholders expect and require a broader range of information and data, it is important that management accountants are able to assist the leadership team with making effective decisions. When embarking on new initiatives or projects at the organizational level, whether they are linked to the practical execution of business ideas or larger level business strategies, it is imperative that organizations able to communicate the results of these initiatives to both internal and external users. Communicating information is a critical step in the successful development and implementation of various corporate strategies, tactics, and ideas that are underway at the organization. Drilling down specifically into the various realms of financial reporting and information dissemination from the management team to external users, there does appear to be a reporting framework linked to disclosure, reporting, and sustainability information.

The reporting framework of integrated reporting represents the culmination of several decades of reporting initiatives and ideas linked to the topics of sustainability and other non-financial information. Regardless of whether or not the organization operates in an environmentally sensitive field or a services based field of business, it is increasingly important for organizations to report a comprehensive view of organizational performance. Sustainability, as it pertains to organizations and management teams at large, does not only pertain to environmental issues at organizations, but also to the fact that ongoing operations must be conducted in a sustainable manner. Put simply, the issue of sustainability also pertains to the ability of the firm to generate earnings and profits in a number of business environments – this should clearly be a concern and area of focus for management teams across industry lines.

At the core of the integrated reporting framework and concept is the principle that organizations, and management professionals, must be able to report different types of information to end users. Embedded within this framework is the concept and idea of a multiple capital model (MCM), which encompasses the reality that organizations must report on and analyze the various resources available to help organizations make better business decisions. Specifically incorporated into the multiple capital framework are the six types of capital, included but not limited to manufactured capital, human capital, social and relationship capital, intellectual capital, natural capital, and financial capital. Linking together these various inputs of information, generated from both operational and financial decisions not only creates a more comprehensive stream of information, but also is more reflective of the actual business environment.

5.6 Redefinition of Capital

Capital, framed within the traditional sense of making business decisions, has referred to the financial sources of capital and the information generated by the firm. While financial capital, flows, and sources of data are of critical importance to management decision making, they do not incorporate the full amount of inputs and sources of data that do in face influence how decisions are made. Especially when framed in the context of a stakeholder oriented marketplace and business landscape, a strictly financial perspective of capital only provides an incomplete and insufficient view of how organizations actually operate. Capital, rather, should be thought of as the available resources that management can use to help evaluate and make decisions within the marketplace. Taking such a holistic view of organizational performance also allows management to explain, narrate, and justify the implications of strategy decisions to stakeholders.

Within the context of a stakeholder environment, a broader definition of capital that includes both financial and non-financial forces also highlights the reality that operations are a result of management decisions, and not purely financial machinations. Acknowledging this reality, that operations drive financial performance, may seem like a relatively logical and straight forward process, but may represent a thought process that is unusual to management professionals. Specifically, accounting professionals that are well trained and qualified to analyze and report results of financial activities and performance are uniquely well equipped to address requirements embedded within a stakeholder environment. Specifically, and linking back to the concepts of integrated reporting and a multiple capital model, there appears to be several areas within which accounting professionals can add value to the organization. The individual capitals utilized by an organization and management team will, of course, vary from industry to industry and organization and organization, but several themes and traits do remain consistent.

5.7 Multiple Capital Model

Drilling into the concept of a multiple capital model it is readily apparent that the six capitals, manufactured, natural, intellectual, social and relational, human, and financial, link to a stakeholder environment. Strategy and strategic planning, especially in an environment increasingly focused on differentiation from the competition, must include and embrace different types and subsets of competitive advantage and information. Continuously evolving and redefining the internal structure of the organization appears to be an important step in organizing firms and organizations for sustainable success in a stakeholder driven environment (Moorman & Day, 2016). Reporting said information allows management professionals, and the management accountants assisting, to provide a comprehensive and holistic picture of organizational performance to end users. In addition to providing financial information to financial shareholders and external stakeholders, this also allows management to specify which types of data is provided to different stakeholder groups.

Stakeholders and end users are best addressed on an individual basis, especially as it pertains to distributing information, so accounting professionals should be tasked with customizing reports and dashboards for different end users. Developing dashboards, reporting templates, and different information channels to distribute include existing skills and competencies in the accounting profession. Rather than approaching an idea such as a multiple capital model as a radial new idea or strategy approach, it would appear more appropriate to categorize this idea as a logical extension and evolution of the accounting function. Accountants, traditionally tasked with delivering information to end users and stakeholders, are simply taking into account broader trends in the marketplace when employing a stakeholder-oriented model.

Regardless of the specific capitals focused on, reported, and communicated to different end users, the role of accounting professionals is critically important. Developing new capabilities, both for individual employees at for the organization as a whole, represents a critical development in the development of stakeholder oriented decision making and marketing (Mena & Chabowski, 2015). Particularly as it pertains to sustainability, a traditionally qualitative field and area of management science, reinforcing positions and strategies with quantitative information provides several benefits to management professionals. First, reinforcing the positions of management with metrics and other associated reported information provides end users with a comparable basis. Presenting information in format in which it can be compared and analyzed within a consistent framework over time cannot be overestimated, especially when it comes to innovative and/or creative uses of information.

5.8 Sustainability Implications

Sustainability, and the implications of sustainability on organizational performance, are also linked directly to the concept of integrated financial reporting. While some organizations and industries are associated with the concepts and ideas of sustainability directly, such as organizations operating within natural resource dependent industries, the implications of sustainability do appear to extend across industry lines. Focusing on sustainability and natural capital appears to be a topic of conversation and debate across different management and industry lines, it readily becomes apparent that this is an emerging and strategic issue. Drilling in specifically there do appear to be several models present in the marketplace for management professionals seeking to develop and implement sustainability oriented models. In spite of the numerous and different models available to management professionals seeking to develop and integrate sustainability into operations, several themes appear to remain consistent. Analyzing these core themes and concepts provides both management accountants, and management professionals at large, the ability to make more effective decisions.

Strategy and strategic planning clearly integrate various aspects of organizations, management decision making, and sustainability represents an area of management science of emerging importance. Operating in an environmentally friendly manner, in addition to being consistent with broader organizational objectives, also allows management to integrate different sources and types of information into the decision making process. Sustainability, and operating in a sustainable manner, also allows organizations to appeal to customers, the marketplace, and the stakeholder landscape in general. Building these bridges, establishing these relationships, and connecting various functional areas within the organization present opportunities for strategic planning to occupy a proactive role within the organization. Drilling down in to the idea and concept of strategic planning and strategy is rapidly becomes apparent that accounting professionals can indeed address both areas.

5.9 Finance and Sustainability

Although sustainability may appear to be a qualitative field of management analysis and science, the projects and initiatives that drive sustainability forward can, and do, have an outsized impact on how organizations perform in financially. With first evidence of sustainability and the materiality of sustainable information emerging into the marketplace, the linkage between finance and sustainability is dynamic (Khan & Serafeim, 2016). Viewed through the lenses of initiatives put into practice at organizations including Coca-Cola, General Electric, and Adidas, there appear to be a variety of ways by which management professionals can implement and report on sustainability. The financial ramifications of sustainability projects is not something that should be taken as an afterthought – management teams are held accountable by market participants as to the performance of the organization over time. Even with this acknowledged, it is apparent that a variety of forces, including but not limited to sustainability and other projects, drive organizational performance. Opinions of marketplace participants, analysts, and actors do influence how management professionals are evaluated, so the financial effects of sustainability must be factored into analyses.

5.10 Strategic Decisions

A debate and position that continuously occupies the time and attention of management is the contrasting expectations and demands of financial stakeholders and non-financial stakeholders. Sustainability reporting, placing numerous strategically oriented bets that may or may not focus on short-term financial results, and reporting these initiatives to the marketplace represents a potential solution to this challenge. Is appears to be common knowledge that that organizations and management teams must invest with a long term approach in mind, but pressures to fulfil quarterly earnings expectations can make such decisions difficult. Management professionals can, however, work to offset this potential conflict but including the organization in an index or other publicly verifiable platform that highlights the importance of sustainability to management. As this analysis demonstrates, such classification allows management to be quantitatively evaluated on how the organization performs both in and of itself and versus the broader marketplace.

As stated throughout this analysis, the information and financial data utilized as a part of the research are publicly available on an open access basis. That said, and despite the fact that such information is maintained and published by a reputable financial services organization, Standard and Poor's, there is always a risk that such data is incomplete, and is influenced by external forces beyond the control of the researcher. Additionally, although information and results for this index are back-tested using the same methodology used to report current performance, the effective launch date of this index was February 1, 2016. Although assurances are given related to the effectiveness and validity of back tested information, there remains a possibility of recalculation in the future. Such methodology, however, is consistent with the introduction of new indices and platforms, and does not appear to represent an issue for market participants.

6. Finding and Discussion

The S&P 500 ESG Factor Weighted Index, with results as reported by the S&P organization, achieved 3-year annualized returns of 7.03%, which correlates with a change in the price performance of the index over that same time period. Contrasting, the S&P 500 index itself generated annualized return of 6.93% during this period of time, which appears to be below longer term trend returns of between 8-9% for the market as whole. At initial examination, it appears that the S&P 500 ESG Factor Weighted Index achieved higher annual returns than the broader S&P 500 index as a whole, it is worth noting that utilities, including oil and natural gas organizations, constitute a smaller percentage of the S&P 500 ESG Factor Weighted Index than the broader S&P 500 index.

> H1: The aggregate returns of the S&P 500 ESG Factor Weighted Index, during the time period 2014-2016, will be competitive with the returns on the S&P 500 index as a whole.
>
> Based on the information available from publicly available records and sources, specifically the data pertaining to the financial performance of these two indices it does appear that the returns generated by the S&P 500 ESG Factor Weighted Index exceeded those of the S&P 500 for the most current 3-year period.
>
> H2: The top 5 organizations within the S&P 500 ESG Factor Weighted Index that have obtained the greatest returns during this 3-year period (2014-2016), will use integrated financial reporting to disclose these results to the marketplace.
>
> Drilling into the largest components of the S&P 500 ESG Factor Weighted Index, the top 10 components, as of June 2017 (the most current and publicly available data) includes the following organizations. Level 3 Communications, Nvidia Corp, Micron

Technology, HP Inc, Reynolds America Inc, Alliance Data Systems Corp, Harris Corp, Colgate-Palmolive Co, Cisco Systems Inc, and CSRA Inc. Upon analysis of the publicly available information and data provided by these organization to the marketplace it does not appear that any of the 10 largest (as of June 2017) members of this index utilize integrated reporting.

The implications and ramifications of this study and research focus in two primary areas, both of which can be applied for academic and practitioner focused research. First, the reality that organizations that were included in the S&P 500 ESG Factor Weighted Index outperformed the broader index, by any margin, over a multiyear period appears to indicate some validity and logicalness to the inclusion of these organizations in the index. While more data and analysis is clearly necessary to firmly establish causality between sustainability, reporting tools, and the resulting performance of these organizations these initial results provide fertile ground for further research. Especially since these results and analysis are derived exclusively from publicly available information, put together and assembled by Standard and Poor's, it is readily apparent that postulating some linkage is not illogical.

Second, while none of the organizations cited as the ten largest components of S&P 500 ESG Factor Weighted Index as of June 30, 2017 appear to utilize integrated reporting as a method of communicating information to the marketplace, several of the organizations issue some sort of sustainability or corporate responsibility report. The growing nature and importance of non-financial capital, integrated reporting, and understanding how operations influence financial results will only continue to grow in stakeholder oriented business environment. Integrated reporting, especially the multiple capital model, which allows management accountants to quantify, report, and explain the impact of operational results on the financial performance of the firm. Management accountants and other management professionals have the ability to more accurately and logically report the results of operations in a comprehensive manner.

7. Conclusion

Upon review of the findings of this research it appears that there are several data points will serve as basis for future research, debate, and discussion. First, the financial performance and compound annual return of the S&P 500 ESG Factor Weighted Index did in fact exceed the compound annual return for the S&P 500 index as a whole for the 3-year period ending in 2016. This outperformance was 0.10%, which may seem immaterial to some users of this research, but especially for larger institutional investors, 10 basis points can add up to significant lost returns over time. Adding to the potential of this research to be expanded upon in the future is that, in a business landscape where every basis point of fees is under increasing scrutiny, a 10-basis point differential in investment options is not as insignificant as it might otherwise appear. Interestingly, this outperformance by the S&P 500 ESG Factor Weighted Index occurred during a time in which the overall market performed strongly at large, including large swaths of the marketplace generating substantial returns.

The second hypothesis of this research and analysis postulated that the 10 largest constituents of the S&P 500 ESG Factor Weighted Index, as of June 30, 2017, would use integrated financial reporting to disclosure and report information to the marketplace. Integrated reporting appears to represent reporting framework and mindset that is gaining in popularity, utilization, and adoption through different industry groups, organization, and individual segments of the marketplace. While it would initially appear to make sense that organizations within the S&P 500 ESG Factor Weighted Index would use integrated reporting it does not appear, that as of this research, that any of the 10 largest organizations in this index are doing so. This apparent gap, between organizations playing leading roles in sustainability indices, and the lack of integrated reporting utilization, also represents an opportunity for proactive management professionals moving forward.

Future directions and implications associated with this research fall into several different, but equally important areas. First, continued analysis and examination of the returns of various sustainability indices, both on a stand alone basis and versus market peers, has the potential to add significantly to the body of knowledge in this area. Secondly, and perhaps most interestingly for the users of this research, is the opportunity to expand on both this initial research question, and the implications of integrated reporting. As both sustainability and integrated reporting continue to increase in importance for market users of organizational data, the level of information and data from which research can be conducted will only increase.

8. Suggestions

There are several conclusions that can, and should, be derived from this research and analysis conducted on the performance of the S&P 500 ESG Factor Weighted Index versus the S&P 500. First, the fact that a publicly recognized firm in the field of financial reporting and analysis, Standard and Poor's, has constructed an index focusing on reporting the results and performance of sustainability oriented organizations indicates the growing importance and significance of this trend. Sustainability, in terms of environmental sustainability and operational sustainability, continues to become more important both for stakeholder reporting and management performance. Second, trends including integrated financial reporting, sustainability reporting, and other categories of non-financial reporting continue to grow in importance, have growing influence over how decisions are made, and the role that management accountants play within the organization. Finance and accounting professionals currently play an important role in the attest, audit, and tax reporting and analysis process, but there is an opportunity for further development and refinement within the marketplace. Whether the focus is on integrated financial reporting, sustainability reporting, or simply improving disclosures and reporting to the marketplace the trends and future implications and readily apparent. This research, among the emerging field of sustainability, finance, and non-financial reporting research and analysis, provides a platform by which both management and management accountants can address the needs of the marketplace. Specific tools and trends will, of course, continue to change, but this underlying message will only continue to grow more important over the coming years.

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