

# Assessing "cause and effect": Objective based measurement for public relations

Avaliando "causa e efeito": Mensuração baseada em objetivos para relações públicas

Evaluar la "causa y el efecto": medición objetiva de las relaciones públicas



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#### Resumo

Despite numerous proposed approaches, the public relations profession has failed to develop a widely adopted method for the measurement of public relations activities. In this article, the authors propose an objective-based approach to assess the impact of public relations by applying a "cause and effect" model based on message delivery. This approach is based on an actual measurement protocol used by a leading global industrial manufacturing company and is consistent with well-established communication theories. In this model, the authors propose a five-stage approach to measurement that includes message development and testing, message distribution, message delivery, message reaction, and message impact.

KEYWORDS: MEASUREMENT • COMMUNICATION THEORY • MESSAGE DELIVERY • STANDARDIZATION • IMPACT.

#### Abstract

Neste artigo, os autores propõem uma abordagem baseada em objetivos para avaliar o impacto das relações públicas, aplicando um modelo de "causa e efeito" baseado na transmissão de mensagens. Esta abordagem baseia-se em um protocolo de mensuração real utilizado por uma empresa líder mundial no setor industrial e é consistente com teorias de Comunicação bem estabelecidas. Neste modelo, os autores propõem uma abordagem de mensuração em cinco fases que inclui o desenvolvimento e teste da mensagem, a distribuição da mensagem, a entrega da mensagem, a reação à mensagem e o impacto da mensagem.

PALAVRAS-CHAVE: MENSURAÇÃO • TEORIA DA COMUNICAÇÃO • TRANSMISSÃO DA MENSAGEM • PADRONIZAÇÃO • IMPACTO.

En este artículo, los autores proponen un enfoque basado en objetivos para evaluar el impacto de las relaciones públicas, aplicando un modelo de "causa y efecto" basado en la transmisión de mensajes. Este enfoque se basa en un protocolo de medición real utilizado por una empresa industrial líder mundial y es coherente con teorías de comunicación bien establecidas. En este modelo, los autores proponen un enfoque de medición en cinco fases que incluye el desarrollo y ensayo del mensaje, la distribución del mensaje, la entrega del mensaje, la reacción al mensaje y el impacto del mensaje.

PALABRAS CLAVE: MEDICIÓN • TEORÍA DE LA COMUNICACIÓN • TRANSMISIÓN DE MENSAJES • NORMALIZACIÓN • IMPACTO.



## INTRODUÇÃO

Ver the past several decades, the importance of research, measurement, and evaluation has been a rallying cry of the entire public relations profession. Much of this debate has been highly theoretical and other than discussions about output analysis by media analysis companies (Macnamara, 2023) direct practical applications that result in universally applied measurement programs that aid in developing and improving public relations programs have been scarce to inexistent. In this article, the authors propose an objective-based approach to measurement based on actual, real-life protocols used by a leading global industrial manufacturing company and on established communication theories.

#### **IMPORTANCE OF RESEARCH**

To say that public relations professionals lack consensus on *how*—and, in some cases, even *if*—their professional activities can be measured appropriately is an understatement. As Macnamara (2011; 2023) notes, discussions on the measurement of public relations activities have filled the pages of numerous peer-reviewed research journals and the agendas of countless conferences for several decades. This includes, but is not limited to, the work of Roll and Cantril (1972), Lerbinger (1977), Simon (1986), Brody and Stone (1989), Broom and Dozier (1990), Ryan and Martinson (1990), Haskins and Kendrick (1993), Croft (1996), Grunig (2001), Hon (1998), Stacks (2002), Berger and Reber (2006), Weiner, M. (2006), Toth (2006), Stacks and Michaelson (2010), Laskin (2016), Michaelson and Stacks (2017), Wright and Hinson (2017), Stacks (2017) as well as trade associations and practitioners such as AMEC (2022), and Paine (2022).

Despite these proposed approaches, debates, and discussions, consensus on which public relations activities and impacts should be measured and how it should be measured is scarce. A cursory review of these discussions shows, at best, a disjointed approach in the measurement debate, much of which appears to be fueled by the commercial interests of media analysis companies rather than any genuine attempt to create a comprehensive and unified theory-based strategy for measuring public relations impact (Macnamara, 2023). As Wright and Hinson (2017) have pointed out, many of these media analysis companies focus most of their business on measuring communication *outputs* rather than concentrating on communication *outcomes*.

#### BACKGROUND

Laskin (2016) offers further analysis of the measurement debate and the lack of adoption of standards. In his article on approaches to evaluation, Laskin (2016, p. 3) also argues "[p]ublic relations can and should be measured, but by a system of metrics rather than one measure." He goes on to propose what he describes as "a standardized hierarchical approach to measurement and evaluation of public relations" (p. 3). This is a continuation of the debate that advocates using a multi-dimensional approach to measure and evaluate public relations. This debate has spanned over the past several decades and includes the seminal works of Broom and Dozier (1990) and Lindenmann's (2003) "outputs," "outtakes," and "outcomes" model. More recently, Michaelson and Stacks (2011; 2017) proposed a multi-dimensional approach that is described in the literature as the B.A.S.I.C. model.<sup>1</sup> Despite the agreement among public relations professionals that research, measurement, and evaluation should be employed, previous studies suggest they are only used about half of the time (Wright; Hinson, 2017).

<sup>1</sup> B.A.S.I.C. refers to Build awareness, Advance knowledge, Sustain relevance, Initiate Action, Create advocacy. (Michaelson & Stacks, 2017, p. 28)



Most recently, Macnamara (2023, p. 6) has pointed out the lack of advancement in measurement and evaluation in the "past half-century" in spite the advancements in the practice of strategic communication.

While these discussions present considerable value and contributions to the profession, they also exposed an inability to effectively *operationalize* these broader forms of measurement and evaluation using a *standardized model* that incorporates understanding of how public relations causes the intended impact or effect. To better understand why this has occurred, understanding the role of public relations and corporate communication in overall business activity is critical. That role includes what public relations and corporate communication does and what it does not do.

Stacks (2002; 2011; 2017); (Michaelson; Stacks, 2014) (Michaelson; Stacks, 2017); (Stacks; Michaelson, 2010) has carried out an extensive examination of this role tying public relations outcomes—based on public relations outputs and outtakes—to the larger business concern. In doing so, Stacks (2002) first identified a multiple-level approach to public relations objectives, arguing that the first measurement is of what the public relations function actually puts into targeted and non-targeted media and how that outcome functions compared with baseline expectations: the *informational* objective. Second, *if* the information has been received, understood, interpreted, and evaluated, then has it changed the internal attitudes, beliefs, and values of the targeted stakeholder groups?—the *motivational* objective. The motivational objectives and compare it with baseline and benchmarked outcomes. Third, if *both* informational and motivational objectives are achieved at a predetermined level of success, does the stakeholder audience follow through and behave as expected?—the *behavioral* objective.

Michaelson argues a similar model but his focuses on the *communication lifecycle* (Michaelson; Stacks, 2011) and operates on five basic stages of any communication campaign or program by identifying *awareness, knowledge, relevance, action*, and *advocacy* as stages that are critical in understanding a "cause and effect" assessment of a communication program. The communication lifecycle is an "end-to-end" model suggesting that the lifecycle of any public relations or corporate communication campaign continues long after a campaign ends —and is often reintroduced later.<sup>2</sup> The research objectives are found in a linear continuum from pre-campaign to post-campaign measurement activities that allow the communicator to compare measures at various objective-related benchmarks with baseline and provide measurable success, which can then be correlated with other business functional success indicators (Stacks, 2017).

Taking a practitioner's perspective on determining the success of communication, the focus of effective measurement is therefore on message delivery, message acquisition, message evaluation and interpretation, and how these messages affect the impact. This can be determined with many traditional "media" measures, to include simple counts of messages released to the targeted audiences (outputs), general tone or sentiment of third-party endorsements (outtakes), and quantitative, qualitative, and observational target behaviors (outcomes). Most public relations campaigns do not measure much beyond the "did the message get out?" Other measures, including "Did it motivate?" and "Did it change (or sustain) behavior?" are less likely to be considered. This text seeks to expand the practical measurement of various outcomes (key performance indicators – KPIs) to the strategic measurement of specified communication outcomes across predetermined benchmarks associated with the communication lifecycle. The strategic evaluation and interpretation will advance public relations measurement and research, along the line proposed in 2012 by Michaelson, Wright, and Stacks regarding public relations campaign success.

As Michaelson, Stacks, and Clark noted in their 2017 article on message delivery analysis: "[...] message delivery is fundamental in the success of a communication program" (2017, p. 9). The obvious conclusion drawn from this observation is that message

<sup>2</sup> Part of the end-to-end model provides for evaluation of where a particular campaign should begin based on previous or continued research, thus increasing the efficacy of the campaign by bypassing or introducing messages through channels that are already within the audience's awareness and knowledge and is sustained.



delivery is the core of any public relations measurement program and needs to be considered at each measurable stage of the communication process to determine impact.

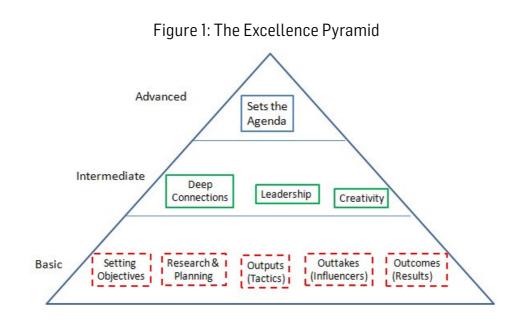
There has been much recent debate about the role and function of public relations including a focus on stakeholder rather than an emphasis on outcomes. These debates, however, do not fully consider the processes that are at the core of effective communication programs and have an intentional impact on stakeholders.

### THE FOCUS OF MEASUREMENT PROGRAMS

Measurement should not be about determining success or failure of a communication program. The true purpose of measurement *is to diagnose where communication is working and where it is not working against stated objectives*. This diagnostic process functions as the basis for prescribing recommendations that assure communication programs achieve their objectives.

As a first step in creating the optimal design of a measurement program, understanding the essential focal points that a properly designed measurement program must consider is important, providing the necessary utility in assessing a communication program.

This approach to measurement aims to (1) identify the messages that are most likely to impact a desired behavioral change, (2) determine if these messages are delivered to intermediates or to its intended audiences, (3) evaluate target audience reaction to these messages, and (4) assess progress toward establishing the conditions that are necessary to affect behavior. As such, measurement can be seen as basic to all public relations evaluation as espoused in the Excellence Pyramid (see Figure 1) (Michaelson; Wright; Stacks, 2012).



The Excellence Pyramid

#### DEFINING THE MEASURABLE SCOPE OF PUBLIC RELATIONS

Based on this perspective, the operational definition of public relations that will used for this article is: *the development and creation of messages that are transmitted or communicated to specific publics or stakeholder audiences with the intent of* 



*affecting or creating behavioral change.* This definition is a creation  $\rightarrow$  distribution  $\rightarrow$  impact model that has been refined to include multiple benchmarked objectives with strategically placed feedback and feedforward loops throughout the campaign. The results of such a model yield what we will define and call an "end-to-end" measurement model in later sections.

#### THE CONCEPT OF ASSESSING BEHAVIORAL CHANGE IN COMMUNICATION MEASUREMENT

The concept of behavioral change as a communication objective has a deeply rooted modern history dating back to the work E. St. Elmo Lewis originally developed in 1898. Lewis proposed a theory of communication that is commonly referred to by its acronym A-I-D-A (Lewis, 1908). That acronym refers to *Awareness, Interest, Desire, Action*.

Action in this instance is the intended behavioral change that is the fundamental goal of a communication program. However, as Michaelson and Stacks (2011, p. 6) noted, "adapting this model (AIDA) to public relations activities is not as direct and obvious as it might seem."

A communication model based on advertising assumes *controlled messaging and the placement* of the intended messages via purchased or paid media. By contrast, public relations-based messaging is usually communicated to target audiences via intermediaries, earned media, and increasingly via social media postings by influencers and by owned media, which is endorsed by social media followers. This reliance on intermediaries rather than paid placement produces a unique burden on public relations professionals to assure that an intended message reaches a communicator's targeted audience and in turn creates an intended outcome.<sup>3</sup>

Without the ability to determine if intended messages were delivered to a target audience, an organization will not be able to determine effectively if their communication activities contribute to the business goals the communication program is intended to support. For this determination, a measurement program needs to examine the entire communication process starting from the origination of the message to the delivery and impact on its target audience. Ideally, this impact should also be measured against an audience that has not received the message (i.e., a control group). These measures include operational measures that assess the day-to-day operation of the communication function, executional measures that evaluate campaigns and programs, as well as *impact* measures that examine the ability of communication to change stakeholder perceptions and behaviors that in turn aid in achieving business goals (see Figure 2).

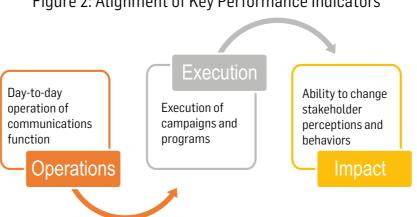


Figure 2: Alignment of Key Performance Indicators

<sup>3</sup> In evaluating previous influencer research and an experimental test of the impact influencer (Stacks & Michaelson, 2009) – third party endorser – effect on advertising and public relations, Stacks (2008) suggested that delivery method is significantly related to channel control, a concept closely related to paid placement due to the ability to specify where and when a communication occurs.



### **OPERATIONAL MEASURES**

While operational measures are critical to the success of a measurement program, this manuscript concentrates on the executional and impact measures that are part of a complete measurement system. Operational measures are not measuring specific communication activity or a communication program. Rather they are the foundation that assures *that an organization responsible for communication is structured to measure impact and take the necessary actions to assure that a communication program is successfully supporting business objectives*.

These considerations include:

- An organizational structure that reflects the development and testing of communication programs, the distribution of messages, the delivery of messages to an intended audience, managing reactions to the messages, and assessing the impact of the messages
- The implementation of systems to support quality and accountability.
- Mechanisms for evaluating campaign and employee performance.
- Budget review to assess return on expectations.
- The demonstration of behaviors that reflect a high-performing, world-class function.

Implementing these operational measures is necessary, but insufficient for the effective implementation of the executional and impact measures that assure program success in supporting business objectives with the "end-to-end" evaluation of communication programs.

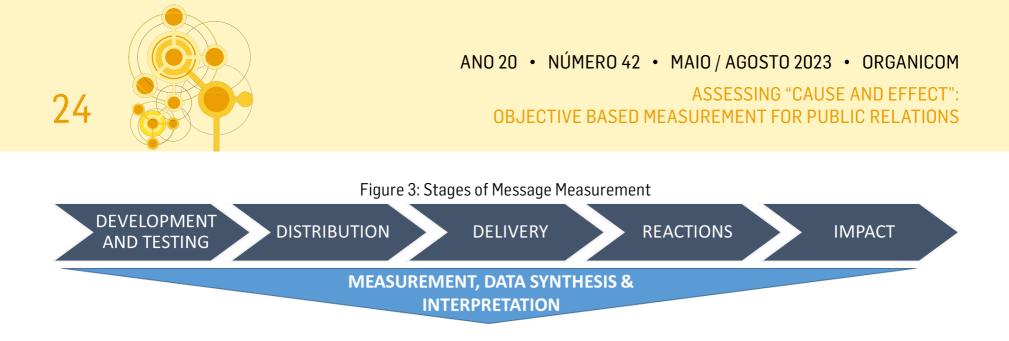
#### "END-TO-END" EVALUATION OF COMMUNICATION

Assuming an organizational structure that supports and is integrated with the measurement of communication activity, understanding the key points where the measurement of communication performance needs to take place is necessary. Measurement is then operationalized as a mechanism that assures intended messages are reaching their target audience (informational objectives) and these messages are in turn facilitating an intended impact (motivational objectives) that results in behavioral change.

Communication of messages can be measured at five distinct stages:

- 1. Development and Testing
- 2. Distribution
- 3. Delivery
- 4. Reaction
- 5. Impact

Figure 3 shows that these stages occur linearly and during the development of the messages, where these messages are also tested for efficacy; when the messages are distributed by the sender; in their delivery to the target audience via media; in the organic reaction of the target audience as a result of exposure to them via media; and in their impact on the target audience.



### MESSAGE DEVELOPMENT AND TESTING

The development and testing stage, while not typically understood as part of the overall measurement process, is a core part of any program where *delivery of messages* is at the core of the evaluative process. Research focusing on development and testing has often been referred to in the communication research literature as "formative research" (Stacks, 2002). As noted by James and Larissa Grunig on the use of formative research:

[...] evaluative research should be both to pretest and to post-test those programs, structures, and organizational policies and behaviors [developed from formative research]. (Grunig; Grunig, 2001, p. 9)

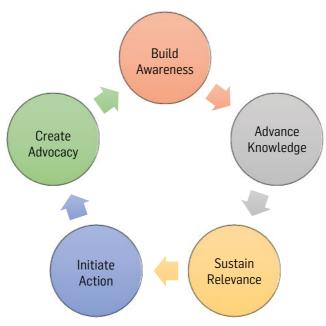
The essential element in the research design for development and testing (formative research) is to determine, from all available data sources (*qualitative, quantitative, and existing research*), which messages are most motivating to target stakeholder audiences for encouraging a desired behavior in addition to establishing benchmarks for the key motivational and behavioral measures that reliably impact business outcomes and, in turn, serve as basis for measuring the impact of a communication program.

Despite the lack of a standardized structure for this phase of the measurement process, the research needs to serve multiple functions to develop a program that will affect behavioral change and serve as a mechanism that will determine if the program is meeting its goals based on an analysis of specific stages of the communication lifecycle. This typically needs the use of survey research that includes standardized measures that assess how communication impacts behavioral change.

Michaelson and Stacks (2011) identified what they called the essential elements that are core to a standardized measurement program. These measures, commonly referred to as B.A.S.I.C., cover five distinct areas in communication assessment that are tied to the delivery of messages and their impact on business outcomes (see Figure 4):

- Build *awareness* of a brand, topic, or issue.
- Advance levels or degrees of *knowledge* on those awareness items.
- Sustain *relevance* of messages on the specific subject or topic.
- Initiate behavioral *intent* or *action* among a target audience due to exposure to messages.
- Create *advocacy* among the target audience in support of the messages.

Figure 4: The B.A.S.I.C. Model



These standardized measures are used to assess the *absolute* and *relative*<sup>4</sup> performance of a communication program on each of the measures that impact behavior (Michaelson; Stacks, 2011, p. 4). These measures, most importantly, function as the foundation for developing a communication strategy that determines which messages will be most effective in contributing to meeting business objectives, while also considering where, on the overall lifecycle, a communication plan needs to focus its efforts—*awareness, knowledge, relevance, intent to take action, or creating advocacy.* 

#### **MESSAGE DISTRIBUTION**

Identifying messages that contribute to achieving business objectives, while also determining the cognitive stages of an intended audience on a topic or issue, are essential elements for the foundation of a communication measurement program. However, unless the messages identified in the development and testing stage are actually received by a target stakeholder audience – either directly or via an intermediary – *no* impact on target audience behaviors or business outcomes can be attributed to public relations activities.

Although this conclusion seems axiomatic, no readily available research has examined the *omission* of intended messages in outbound communication or the impact of these omissions on business outcomes.<sup>5</sup> Nonetheless, in the day-to-day practice of public relations, it seems (based on anecdotal observation<sup>6</sup>) that editorial control of outbound communication that assures intended messages are appropriately prominent in outbound communications is rarely applied. As Stacks and Michaelson conjectured in 2009 in their work comparing the impact of advertising with public relations, an increased level of control of editorial content is likely to increase the impact<sup>7</sup> of communication on target audiences. (p. 4)

This stage of the measurement process determines, based on the development and testing phase, which messages are most effective in achieving communication goals that in turn support business or behavior objectives. These messages, when

<sup>4</sup> See manuscript page 9 for detailed definitions of absolute and relative measures.

<sup>5</sup> This finding was based on a Google Scholar (scholar.google.com) and general Google search using the search terms "errors in press releases" and "omissions in press releases." Search was conducted on November 18, 2017, and repeated on July 17, 2023.

<sup>6</sup> Conclusion based on personal observation of editorial and press release distribution procedures in major U.S. public relations agencies and corporate communication departments from 1983 to 2017.

<sup>7</sup> In this instance, impact was discussed as a potential multiplier effect that could occur with increased editorial control. However, no research to date has shown this effect.



aligned with the B.A.S.I.C. model, can emphasize awareness, knowledge, relevance, or a combination of these areas to the target audience depending on the informational and motivational needs identified in the initial measurement phase.

Once these messages are identified and prioritized, communicators need to review all outbound communication to assure that all relevant and impactful messages are included in these communications. Although this measurement phase is typically understood as part of editorial or governance procedures, it remains an essential stage in determining if the flow of messages from communicator to intermediary to target stakeholder audiences proceeds uninterrupted. This is consistent with the Shannon and Weaver (1963) communication model. Only when relevant and impactful messages are included in outbound communication that determining the impact of communication activity on intermediaries and target audiences becomes possible.

This assessment of message distribution in outbound communication in turn becomes the basis for determining if intended messages are delivered to intermediaries who in turn provide access to messages to intended stakeholder audiences.

#### MESSAGE DELIVERY

Although the distribution of messages is an essential step in achieving communication and, in turn, business objectives, intended messages still must be delivered to targeted stakeholders if creating impact is expected. The most apt analogy for understanding the role of message delivery in achieving communication objectives is that of a manufacturer creating and packaging a product. Unless the finished and packaged product is distributed to a retailer or other outlet, the intended consumer does not have access to nor derive the benefits associated with the product.

As Michaelson, Stacks, and Clark (2017, p. 14) noted : "[...] message delivery is at the core of measurement in determining the success of any communication program [...]". They further argue: "Without the ability to determine if the delivery of intended messages to a target audience occurs, an organization will not be able to effectively determine if their communication activities contribute to the business goals the communication program is intended to support". In essence, while determining if messages are delivered is essential, this type of analysis is equally important to understand where media relations programs are succeeding and where adjustments are needed if a public relations program is to achieve its goals.

Despite numerous methods for the analysis of media content, it was not until the work of Michaelson and Griffin (2005) that the concept of message delivery as a primary focus of content analysis appeared in the public relations research literature. In that article, they identified nine traditional approaches to content analysis<sup>8</sup> (pp. 2-5), as well as the "fatal flaws" of these commonly used methods of content analysis:

As diverse as these methods of content analysis appear, each contains two commonly held *fatal flaws*. The first flaw is the absence of a basic analytic structure that determines the accuracy of coverage overall and more specifically determines the accuracy of specific messages included in the content of articles under analysis. The second flaw is the failure to link analysis to communications objectives and public relations messages. (Michaelson e Griffin, 2005, p.6)

Michaelson and Griffin argued that determining message accuracy "is based on an analysis of four basic elements": (1) the *inclusion* of basic facts or information, (2) the *presence* of misstatements or erroneous information, (3) the *incomplete* information,

<sup>8</sup> Clip counting, circulation and readership analysis, advertising value equivalence (AVE), simple content analysis, message analysis, tonality analysis, prominence analysis, quality of coverage, and competitive analysis.



and (4) the *omission* of relevant facts or information that should have appeared in consideration of the overall context of the article (p. 6). Consequently, without a thorough understanding if messages are accurately delivered, diagnosing if and why a program or campaign is succeeding or if the campaign needs modification going forward is challenging. As noted in Table 1, the ability to control delivery and reporting of business messaging requires a planned, multiple message delivery strategy.

Despite numerous challenges with implementing this form of content analysis,<sup>9</sup> it is highly reliable and predictive of other common measures of media content. This is particularly true of the sentiment or tonality of articles where levels of sentiment correlate highly with overall levels of message delivery particularly when including the presence of negative or erroneous messages in the assessment (Michaelson; Stacks; Clark, 2017, pp. 10-12). In that analysis, higher levels of intended message delivery were predictive of higher levels of overall sentiment (p. 13).

#### **MESSAGE REACTION**

Assessing if messages are delivered to intended stakeholder audiences is an essential element of a communication measurement program. Assessing the reaction to these messages once they have been delivered is equally important. Over the past decade, the development of social media has provided a unique ability to conduct this assessment.

Despite the ample debate about the role of social media as part of the practice of public relations, the role of traditional media and what is commonly referred to as "social media" have become highly intertwined and cross-referenced to the point that the form of physical delivery (print or electronic) or format (news article, commentary, opinion) can no longer define either the traditional or social media formats.

What defines the role of social media in creating a communication measurement program are two factors: (1) the ability of the stakeholder audience via social media to publicly react to news and information in real time and (2) the ability of that reaction to be shared openly even among those who do not have a personal relationship with the individual who is originating the comments. In essence we now have a means of assessing organic reactions to news, events, information, and messaging by conducting deep social media analysis.

Despite the many approaches to social media analysis, the core of any social media measurement needs to include: (1) determining relevance of the post, topics, and subjects included in the post to the overall communication programs, (2) determining if the posts reference intended messages, and (3) assessing sentiment toward the messages, topics, or subjects from the perspective of the author of the post, who may become a significant third party uncontrolled endorser of the message. This last assessment is in direct contrast to the assessment of sentiment in traditional media where sentiment preferably should be assessed from the impact of the article on a neutral reader. In social media, the reader is the one expressing their own sentiment on the subject or message at hand.

While understanding organic reaction to a communication program is a critical part of public relations measurement, its ability to assess the actual impact of a communication program is limited. Although social media is a widespread phenomenon, participation in social media is extremely uneven among populations. As of 2021, 72 percent of adult Americans (18 years and older) participated in at least one form of social media, an increase from five percent in 2005 (Pew Research Center, 2021). Despite levels of participation in social media among the overall population being quite high, variance by population segment

<sup>9</sup> Refer to Michaelson, Stacks, and Clark (2017) for a detailed discussion of the challenges and limitations associated with message level analysis as well as recommendations for a standardized scoring system that includes message delivery as a core element of the calculation.



is significant, which is most pronounced in a generational analysis where 84% of adults aged under 30 participate. This compares with the 64% of those aged 50 to 53 and 45% of those aged 65 and older who participate in social media.

These participation levels, however, only present a limited understanding of generational differences in social media use. Not only do overall participation levels vary by age, but participation also varies by level of activity. This is noted as *active* and *passive* social media participation (Pagani; Ronald; Hofacker, 2011). Discussion for why some individuals actively participate in social media while others participate passively is abundant, there is ample anecdotal evidence that younger adults who grew up in a social media environment are more likely than older adults (ages 50 and older) to *actively* participate by publishing social media posts and sharing information on social media.

Additionally, active participation in social media is often limited to a select number of individuals who post frequently whereas others are merely content to share posted material created by others or merely follow active participants. This has been referred to as the "1/9/90 rule," which "posits that on a social media network or review site, only 1 percent of users will actively create content. Another 9 percent, the editors, will participate by commenting, rating, or sharing the content. The other 90 percent watch, look and read without responding" (Kuchinskas, 2011). This has also been described as an audience of "lurkers," or those who stay in the background most of the time but may engage in the conversation at unpredictable points in time (Chen, 2017).

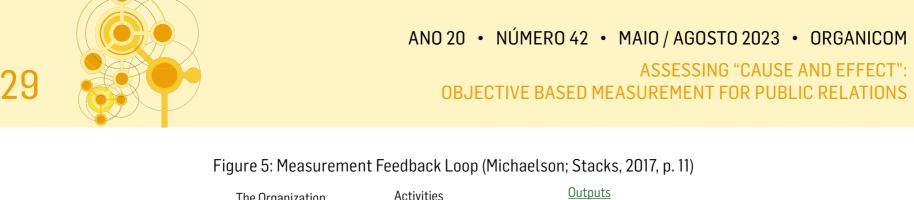
Taken at face value, this hypothesis presents a perspective that social media analysis, when compared to traditional random survey research, is, at best, limited in its ability to predict the impact of a communication program using that tool alone since only a *self-selected* and unusually vocal audience of approximately one percent of social media participants would be used to determine the thoughts and opinions of all passive readers. Consequently, primary research based on random sampling methods that examines those factors which influence behavior and then compare or contrast them against the other 99 as a control group is needed to fully assess the *impact* of public relations activities.

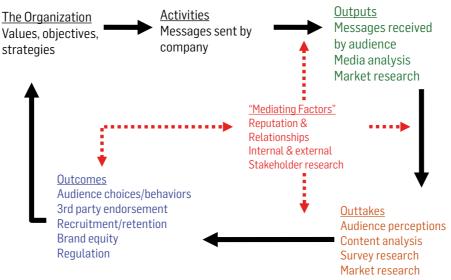
#### MESSAGE IMPACT

Earlier in this manuscript, we emphasized that the initial stage of measurement is development and testing. This development and testing phase serves multiple purposes that include identifying and validating messages that will likely have an intended impact with a target audience as well as determining where on the communication lifecycle the intended audience stands.

This second benefit of the research conducted at the development and testing phase is at the core of measuring impact. Knowing at which stage an audience stands in this lifecycle is essential for determining the impact of delivered messages, diagnosing where a communication program is succeeding and where the program needs adjustment to achieve its goal impact behavior, and in turn affecting business outcomes. This initial research phase sets a benchmark using the B.A.S.I.C. model that is used to determine where a communication program is succeeding and where it needs adjustment. This assessment is particularly critical for the three initial stages of the communication lifecycle since behavioral intent, and thus advocacy, are unlikely to be impacted unless the intended stakeholder audience is aware of the product, service, or issue and has correct knowledge on the subject, while also finding the messages identified in the development and testing measurement phase relevant and motivating.

This measurement process is, in effect, a *feedback loop* where messaging is developed and tested, its distribution is determined, and its impact based on exposure is measured (see Figure 5). In turn, this provides diagnostic information to adapt the program to assure messages achieve their intended effect.





#### **CONCLUSION: STANDARDIZATION OF THE MODEL**

While adopting the "end-to-end" measurement model provides a strong basis for an effective measurement program, other considerations also need to be included in the implementation of this systematic approach. Tracking the impact of messages is the most essential aspect of measurement but being able to determine if a communication program is successful beyond absolute goals and including relative measures that assess how the program's achievements compare to other communication efforts is equally important. These comparisons can be between companies, products, regions, managers, and any other measure that identifies how successful a communication program is relative to expected communication norms. This requires standardization of the measurement process so that comparative analysis can be conducted that provides these insights based on relative measures (Michaelson; Stacks, 2011, p. 4). While Michaelson and Stacks (2011; 2014; 2017) have proposed a series of standardized measures using the B.A.S.I.C. model, that have been tested for validity and reliability, adopting standardized models for use within their organizations is more important for communicators than relying on industry standards that are unlikely to be widely adopted (Michaelson; Stacks; Clark, 2017).

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