

**SUCCESSFUL INNOVATION IN ORGANIZATIONS:  
THE EFFECTS OF TRANSFORMATIONAL LEADERSHIP, PRODUCT  
INNOVATIVENESS, AND MARKET RECEPTIVITY**

\*Nicholas W. Twigg, Coastal Carolina University, [ntwigg@coastal.edu](mailto:ntwigg@coastal.edu), 337-244-1029

Michael Latta, Coastal Carolina University, [mlatta@coastal.edu](mailto:mlatta@coastal.edu)

Janice A. Black, Coastal Carolina University, [janblack@coastal.edu](mailto:janblack@coastal.edu)

\*Corresponding author

**ABSTRACT**

The United States of America have been shown to be a laggard in innovation (Latta & Twigg, 2008). This lag suggests either markets are not as receptive to U.S. innovations as business leaders might think, or transformational leaders are not as effective as thought in successful innovation. In this study we suggest leadership style affects both organizations innovativeness and its innovative success, but is limited by market receptivity. This study looks at the relationship among leadership style, organizational innovativeness, market receptivity, and performance. In the classical view, organizational innovativeness includes two sources; innovation success (Baker & Sinkula, 2009) and product innovativeness (Wang & Ahmed, 2004) as strategies to improve an organization's effectiveness. It is suggested here another avenue to improve an organization's effectiveness in innovation is finding receptive markets and exploiting them.

**LEADERSHIP STYLE**

A Transformational Style of leadership consists of coaching, mentoring, and facilitating the work of others, whereas, a Transactional Leadership Style consists of planning, directing, organizing, and controlling (Bass & Riggio, 2006; Twigg, 2008). Innovation requires a break with the status quo of the culture, processes, developments, and delivery of products and services (Baker & Sinkula, 2009) to have any success in the innovative initiative.

Top management has been a major focus of transformational style (Ensley, Hmielski, & Pearce, 2006; Hacker & Doolen, 2007; Matzler, Schwarz, Deutinger, & Harms, 2008). Yet, Transformational Leadership (TL) Theory would maintain that a transformational style can exist at all levels of an organization (Bass & Riggio, 2006; Ensley, Hmieleski, & Craig, 2006; Frick & Spears, 1998; Twigg, 2008). A Transformational Leadership style encourages followers to share in the strategic vision of the organization (idealized influence) (Bass & Riggio, 2006), inspires followers to look beyond self interest towards the needs of the organization (inspirational motivation), and to challenge the norms and existing cultures to see what changes may lead to a competitive advantage (Intellectual stimulation).

A transformational leadership style addresses the leaders and the follower's intrinsic needs and motivations (Bass & Riggio, 2006; Matzler, et al., 2008). Innovation may be driven by external circumstances (necessity is the mother of invention), yet innovation implies a change in creativity of the individual (Drucker, 1998). Creativity is intrinsic to an individual.

Innovation implies risk. A transformational leader challenges followers through intellectual stimulation to challenge assumptions and take risks (Bass & Riggio, 2006; Judge & Piccolo, 2004). Questioning the status quo is a basic prerequisite for creativity and innovation.

### **INNOVATION**

Innovation is “. . . the effort to create purposeful, focused change in an enterprise’s economic or social potential.” (Drucker, 1998:149). Innovation is essential to an entrepreneurial culture (Baker & Sinkula, 2009; Drucker, 1998). Innovation creates competitive advantages for an organization (Levesque & Walker, 2007). It is not the intent of this study to get involved with the discussion on the definitions or typologies of innovation (Garcia & Calantone, 2002). In this context we use innovation success as a process of innovation (Baker & Sinkula, 2009). Subsequently, we use product innovativeness (Wang & Ahmed, 2004) as an outcome measure of R & D productivity. Flexibility in an entrepreneurial structure affects the organizations innovativeness (Baker & Sinkula, 2009). Innovation implies change and change involves risk.

#### ***Innovation Success***

On the front end of new product development and adoption, is the development process. In the drive to survive and thrive, business leaders strive to innovate. In new product development, timeliness and effectiveness are emphasized (Dooley, Subra, & Anderson, 2002). As a result, business leaders emphasize best practices in new product development activities.

Sometimes best practices in finding new product ideas rely on the market as a way to improve the odds of acceptance (Morrison, Roberts, & Midgley, 2004). New product concepts are tested with what are sometimes called key opinion leaders (KOL) to see if they have merit. Innovative companies attempt to improve their success by ensuring market receptivity through working closely with KOLs (Thomke & von Hippel, 2002) or through the application of technology in developing better Research & Development systems (Thomke, 2001). Both approaches are utilized to lower failure rates for new products and increase speed and depth of adoption after launch.

#### ***Product Innovation***

Innovation is often defined as an idea, practice, or object viewed by a market, a business, or an individual as new. The successful innovation-development-adoption process consists of all the business decisions, activities, and their outcomes directed at identifying either a need or a problem in the market that needs satisfaction or a solution. The steps involved in business performance over the long haul include:

1. Identification of the need or problem
2. Basic and applied research
3. Development of the basic research product
4. Commercialization of the product
5. Diffusion and Adoption of the product
6. Consequences for the individual and social system

Markets can be innovative in nature especially if applied to a specific country where social, cultural, and political make up can determine the willingness or resistance to new product adoption. Adoption theory may be used to understand the nature of a specific country’s propensity to adopt (Rodgers, 2003).

### **MARKET RECEPTIVENESS**

Key elements of business performance are leadership, mission, and vision. Regardless of how innovative a company is in new product development or changing existing products, the receptivity of the market for innovations can vary widely (Von Hippel, Thombe, & Sonnack, 1999). The development and launch of failed products is commonly due to lack of market receptivity.

On the back end of new product development and adoption, is the marketing process. Some researchers have emphasized relationship marketing and lead users (Gruner & Homburg, 2000), others have placed emphasis on personal values and socio-demographics (Steenkamp, Hofstede, & Wedel, 1999), while still others emphasized innovativeness of individual consumers (Goldsmith & Hofacker, 1991).

Other research approaches concentrate on organizational and communication processes (Rogers, 1976) or global issues such as national culture and wealth (Chandrasekaran & Tellis, 2007). Looking at organizations as well as individuals leads to a concept of receptivity to innovations. There has been an attempt to develop a measure of individual consumer innovativeness through the use of a variety of measurement scales such as the Exploratory Acquisition of Products Scale (Steenkamp, et al., 1999) for use in modeling individual characteristics. But, many receptivity issues surround the characteristics or typical behaviors of the organization once business to business instead of consumer marketing is the focus.

Rogers (2003) has combined these two issues and postulated there are individual members of a social system who are predisposed to be innovative and adopt an innovation sooner than those who are not as innovative. The tendency of members of a social system to adopt innovations was classified into five categories according to the amount of time passing from innovation availability to adoption:

1. Innovators (2.5%)
2. Early Adopters (13.5%)
3. Early Majority (34.0%)
4. Late Majority (34.0%)
5. Traditionalists (16.0%)

The proportion of members of a social system falling into each of these categories appears in parentheses above. Note that Rogers' label for the fifth category is actually Laggards, but Traditionalists has been used in prior research at the behest of research participants (Latta & Twigg, 2008). At one end are the risk takers or pioneers who adopt innovations early while at the other end are those who resist adopting innovations for a long time, if they ever adopt. In addition to individuals, organizations can be described in this manner. In fact, nations have been described in this manner in global studies of new product adoption (Chandrasekaran & Tellis, 2007). A company can have the perfect product according to best practices in innovation, and it may fail if the market is not receptive to innovation due to a lower proportion of Innovators and Early Adopters. It is postulated the market receptivity to innovation is defined by each of the five categories below.

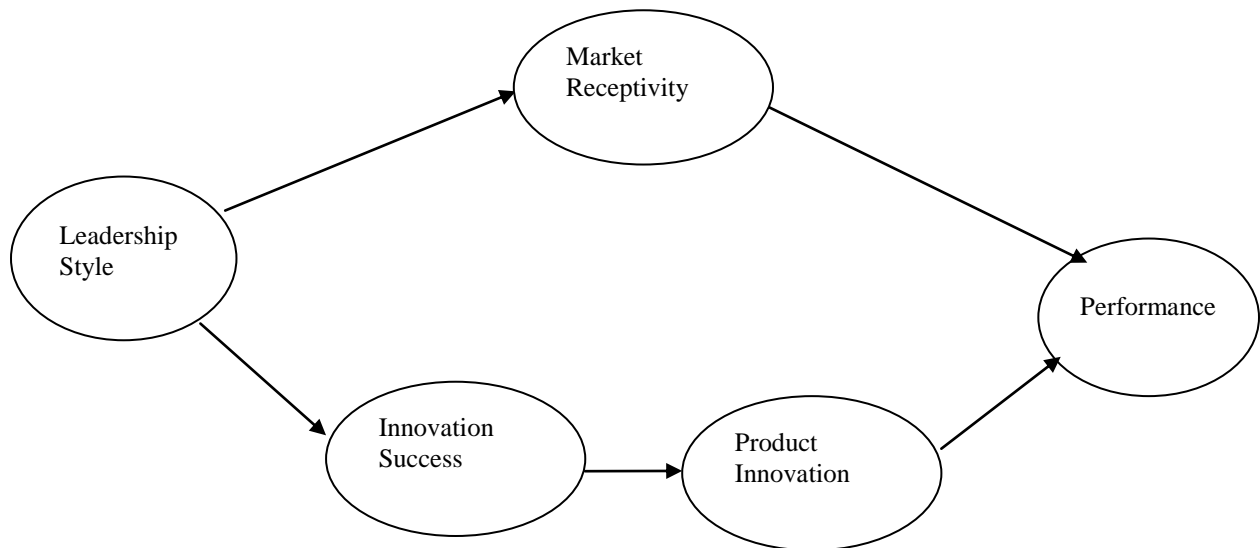
## Leadership Style, Innovation, and International Innovators

By definition an organization that believes it is a leader in adopting new technology or innovations is one that is an Innovator. An early adopter will embrace new technologies whether a product exists or not. An early majority waits until a product or service has been developed and may enter the market with more resources, better brand name, or earlier than the other early majorities. The late majority have neither the will nor resources to adopt at this time, whereas the traditionalists may have the resources, but do not have the will to adopt.

These descriptive characterizations of organizations consistent with Rogers (2003) appear below.

An Innovator	We are venturesome and able to quickly understand and apply complex clinical trial information concerning new [Innovation Type]
An Early Adopter	We command respect and are an opinion leader concerning new [Innovation Type]
In the Early Majority	We deliberate for some time before trying new [Innovation Type]
In the Late Majority	We are skeptical and wait for peers to adopt new [Innovation Type] first
A Traditionalist	We are in favor of the status quo unless there is a strong need to change to a new [Innovation Type]

### MODEL



### METHODS

### *Sample*

Marketing managers from a database supplied by the American Marketing Association will be surveyed for the firm's side of the model and for the measures of performance. A random sample of organizations that use the firm's products or services will be surveyed to determine a baseline for market receptivity.

### *Procedure*

Two methods of delivering the instrument will be used. One method will be to mail a pencil and paper questionnaire to selected samples. A second method will be to email a link to a site where the questions will be located.

### *Variables*

The main variables included in the model were measured with well established multi-item scales that exhibited good psychometric properties. Responses to all items were made on 6-point Likert scales (1=strongly disagree to 6=strongly agree). A 6-point scale was used to force a neutral response into a disagree or agree, however weak the association may be.

*Transformational leadership and Transactional leadership behaviors.* Four transformational and three transactional items were adapted from Bass, Avolio, and Jung (1995). The items included "My supervisor displays a sense of power and confidence," and "My supervisor provides me with assistance in exchange for my efforts."

*Market Receptivity.* The categories from Rogers' definition of receptivity of a social system can be used to determine the percentage of a population that are Innovators and/or Early Adopters predisposed to be receptive to an innovation. This is consistent with Rogers' "classical definition" of an innovation which is perceived by a unit of adoption, communicated to other members of a social system through appropriate channels over time (Rogers, 1976).

*Innovation Success.* A four item measure adapted from Baker and Sinkula (1999) can be used to measure the supply side dimension of success. Items included were, "The rate of new innovation success rate relative to direct competitors.", "The level of differentiation between your innovations and your direct competitors' innovations.", "The degree to which you beat your direct competitors to the market with Innovations.", "The rate of new innovation relative to your direct competitors."

*Product Innovativeness.* A three item scale adapted from Matzler, et al. (2008) can be used to measure this construct. Items included were "In new product and service introductions, our company is often first-to-market.", "New products and services in our company often take us up against new competitors.", "In comparison with our competitors, and our company has introduced more innovative products and services during the past 5 years."

*Performance* can be a self report measured with 6 items adapted from Moizer and Pratt (1988). Items included were "I am making a real contribution to my organizations success." and "I am effectively helping my organization to reach its goals." Included here was also six items from Matzler, et al. (2008) measuring Growth and Profitability.

*Demographic information* was also collected as control items which included gender, age, race, education level, and years in the company.

## CONCLUSIONS

The study design will allow a determination of how transformational leadership style, organizational innovativeness, market receptivity, and performance are related. Should leaders concentrate on the process of innovation in fostering product innovativeness or on matching innovative products to receptive markets? The proposed model will allow a determination of whether product transformational leadership, product innovativeness, and market receptivity work independently of each other to influence company performance, or if they work in combination of two or three variables in a joint effect on company performance.

## REFERENCES

- Baker, W., & Sinkula, J. (2009). The Complementary Effects of Market Orientation and Entrepreneurial Orientation on Profitability in Small Businesses. *Journal of Small Business Management*, 47(4), 443-464.
- Bass, B. M., Avolio, B., & Jung I. D. (1995). *MLQ Multifactor Leadership Questionnaire (Technical Report)*. Redwood City, CA: Center for Leadership Studies, Binghamton University, 1995.
- Bass, B. M., & Riggio, R. E. (2006). *Transformational Leadership*. 2<sup>nd</sup> Ed. Lawrence Erlbaum Associates, Inc.
- Bergkvist, L., & Rossiter, J. (2007). The Predictive Validity of Multiple-Item Versus Single-Item Measures of the Same Constructs. *Journal of Marketing Research (JMR)*, 44(2), 175-184. Retrieved from Business Source Premier database.
- Chandrasekaran, D., & Tellis, G. J. (2007). Global Takeoff of New Products: Culture, Wealth or Vanishing Differences? *Global Takeoff*, March 5 edition.
- Cooper, P. (2005). A study of innovators' experience of new product innovation in organizations. *R&D Management*, 35(5), 525-533.
- Dooley, K., Subra, A., & Anderson, J. (2002). Adoption Rates and Patterns of Best Practices in New Product Development. *International Journal of Innovation Management*, 6(1), 85. Retrieved from Business Source Premier database.
- Drucker, P. F. (November-December 1998). The discipline of innovation, *Harvard Business Review*, 149-157.

Ensley, M., Hmieleski, K., & Pearce, C. (2006). The importance of vertical and shared leadership within new venture top management teams: Implications for the performance of startups. *Leadership Quarterly*, 17(3), 217-231.

Ensley, M., Pearce, C., & Hmieleski, K. (2006). The moderating effect of environmental dynamism on the relationship between entrepreneur leadership behavior and new venture performance. *Journal of Business Venturing*, 21(2), 243-263.

Garcia, R., & Calantone, R. (2002). A critical look at technological innovation typology and innovativeness terminology: a literature review. *Journal of Product Innovation Management*, 19(2), 110-132.

Frick, D. M., & Spears, L. C. (Eds). (1996). *On becoming a servant leader: The private writings of Robert K. Greenleaf*, 1<sup>st</sup> edition. San Francisco: Jossey – Bass Inc. Publishers.

Goldsmith, R., & Hofacker, C. (1991). Measuring Consumer Innovativeness. *Journal of the Academy of Marketing Science*, 19(3), 209. Retrieved from Business Source Premier database.

Gruner, K., & Homburg, C. (2000). Does Customer Interaction Enhance New Product Success?. *Journal of Business Research*, 49(1), 1-14. Retrieved from Business Source Premier database.

Hacker, M., & Doolen, T. (2007). Alignment at the Top: A Case Study Investigating This Critical Factor in Project Implementation. *Engineering Management Journal*, 19(1), 38-42. Retrieved from Business Source Premier database.

Judge, T., & Piccolo, R. (2004). Transformational and Transactional Leadership: A Meta-Analytic Test of Their Relative Validity. *Journal of Applied Psychology*, 89(5), 755-768.

Latta, M., & Twigg, N. (2008). Where are the International Innovators?. Proceedings of the Southeast Decision Sciences Institute, Orlando, FL.

Levesque, J., & Walker, H. F. (2007). The innovation process and quality tools. *Quality Progress*, 40(7), 18-22.

Matzler, K., Schwarz, E., Deutinger, N., & Harms, R. (2008). The Relationship between Transformational Leadership, Product Innovation and Performance in SMEs. *Journal of Small Business & Entrepreneurship*, 21(2), 139-151.

Morrison, P., Roberts, J., & Midgley, D. (2004). The nature of lead users and measurement of leading edge status. *Research Policy*, 33(2), 351. doi:10.1016/j.respol.2003.09.007.

Moizer, P., & Pratt, J. (1988). The Evaluation of Performance in Firms of Chartered Accountants. *Accounting & Business Research*, 18(71), 227-237. Retrieved from Business Source Premier database.

Rogers, E. (1976). New Product Adoption and Diffusion, *Journal of Consumer Research*, 2, March, 1976, 290-301.

Rogers, E. (2003). *Diffusion of Innovation* (5<sup>th</sup> ed.), New York: The Free Press.

Rothwell, R. (1994). Towards the Fifth-generation Innovation Process. *International Marketing Review*, 11(1), 7.

Steenkamp, J., Hofstede, F., & Wedel, M. (1999). A Cross-National Investigation into the Individual and National Cultural Antecedents of Consumer Innovativeness. *Journal of Marketing*, 63(2), 55-69. Retrieved from Business Source Premier database.

Twigg, N. W. (2008). Educational Leadership: The Effects of Perceived Support, Organization-Based Self Esteem, and Citizenship Behaviors on Student Performance. *Journal of School Leadership*, 18: 256-277.

Thomke, S., (2001) 'Enlightened Experimentation: The New Imperative of Innovation, *Harvard Business Review*, February, 67-75.

Thomke, S., & von Hippel, E. (2002) 'Customers as Innovators: A new Way to Create Value.' *Harvard Business Review*, April, 74-81.

Von Hippel, E., Thomke, S., & Sonnack, M. (1999) 'Creating Breakthroughs at 3M.' *Harvard Business Review*, pp. 47-57.

Wang, C. L., & Ahmed, P. K. (2004). The development and validation of the organizational innovativeness construct using confirmatory factor analysis, *European Journal of Innovation Management* 7 (4): 303 – 313.