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What's Measured Counts: Human Capital Management Using Causal Models

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Raw data was collected from two recent employee survey administrations at a large Canadian Telco.

A causal model was developed using structural equation modeling techniques, which compared the results from one survey administration to another. The resultant report yielded a longitudinal examination of how direct links among constructs changed over time. Most importantly, the causal model provided senior HR decision makers with a clear action plan for moving forward with Net Gen employees.

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INTRODUCTION

“Global competition, market volatility and declining labor pools make investing in people a high-risk gamble. Still, future success is dependent primarily on HR’s ability to attract, retain and productively manage human capital. However, the lack of a strategic, unifying model limits HR’s internal efficiency and greatly inhibits its ability to positively affect the people and the organization it services. Human capital measurement must precede management. Only then can a model support effective decision making.”

—Dr. Jac Fitz-enz, founder and CEO, Human Capital Source,
Godfather of human capital measurement

Traditionally, statistics derived from companies’ internal employee surveys only report how things are, not why they are. Furthermore, most employee survey results are presented in the form of mean scores, trend analyses, and perhaps, correlations. These statistics, while useful, still do not provide the type of insight that human capital strategists require.

This paper introduces an approach to analyzing human capital statistics called causal modeling (also known as structural equation modeling and path analysis). This methodological approach allows decision makers to identify causal relationships behind the trends observed in a firm using path analysis. By examining direct links from one construct to another, organizations can determine how to optimally allocate scarce resources among different

initiatives by testing a variety of hypothetical relationships. However, causal models are not meant to replace traditional approaches. Instead, they are to be used as a powerful extension of existing statistical practices.

This case study applies the causal model approach to human capital measurement and will demonstrate how working with advanced statistics can provide actionable insights into human resource management. The study, conducted by Dr. Nick Bontis and nGenera Insight, was designed to explain the antecedents and consequents of effective human capital management. The raw data was supplied by a Canadian Telco, which conducted two internal surveys in 2007; one in the spring and a subsequent one in the fall.

WHY HUMAN CAPITAL MEASUREMENT MATTERS

Human capital measurement can provide valuable insight into a firm's direction and climate with regard to its employees. There are ten primary reasons why analysis based on human capital measurement is important:

- **What isn't measured doesn't count.** It's not possible to talk about something without some sort of unit of measurement. Not measuring leads to having nothing to say.
- **What isn't measured can't be improved.** The proper identification of change—be it positive or negative—relies completely on standardized benchmarks. Without them, it's very hard to say in any detail how things have changed, let alone why. There are three types of benchmarking: internal (comparing one unit to another), external (comparing one organization to another), and longitudinal (comparing data over time).
- **Making business decisions based on empirical evidence and analytics is a critically important executive competence.** Advanced statistical analysis brings greater consistency, and a much more holistic perspective regarding HR policies and practices and their link to performance outcomes.
- **HR empiricists are rare and advanced human capital analytics is not a common skill.** Not everyone can find, use and present solid, statistic-based data in an easy to understand format—especially when C-level executives demand it.
- **Measurement provides transparency.** As Don Tapscott recommends, in the age of transparency, if you're going to be naked, you had better be buff. When metrics are being tracked and exposed, there's incentive for everyone to ensure they look good. Part and parcel of this is a greater awareness of the firm's overall status. A healthy measurement process can help you diagnose and strategize with more confidence.
- **Measurement provides control.** Facts based on figures allow for the precise allocation of resources. Alternatives to capital measurement usually amount to guesswork, or extrapolations based on old guesswork. Advanced statistics provide confidence for a longer-term view.
- **Analytics provide legitimacy.** With minimal translation, the numbers speak for themselves.
- **C-level executives and boards of directors will never stop wanting metrics; not ever.**
- **Measuring talent is a top CEO priority.** When employees are viewed as valuable investments, human capital measurement provides a wealth (and breadth) of information about staff productivity, engagement and satisfaction.

- **Decision making requires empirical evidence.** More accurately, good decision making requires valid empirical evidence provided by strong statistical analysis.

A BRIEF TUTORIAL: CORRELATIONS VS. CAUSAL MODELS

Before examining the application of causal modeling in human capital data, it will be useful to introduce the concept and how it differs from correlation analysis. Traditional correlation analysis is often misinterpreted and can lead to erroneous implications. To illustrate this, we will employ a straightforward example drawn from healthcare.

Assume that data from 50,000 random patients was collected that included the following three metrics:

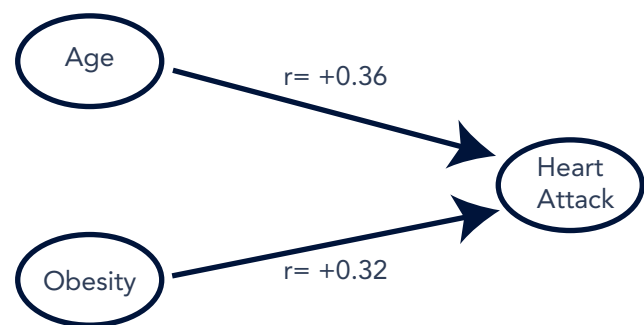
- whether or not they had a heart attack
- their age (in years)
- their degree of obesity or not (based on their Body Mass Index)

Traditional statistical analysis would show the obvious, which is that the probability of a heart attack is positively correlated to both age and obesity (Figure 1). But the real question is does age and/or obesity cause heart attacks?

BELOW Figure 1: Correlations,
Source: nGenera Insight Research

Correlation between Age and Risk of Heart Attack
+0.36 ($p < 0.01$)

Correlation between Obesity and Risk of Heart Attack
+0.32 ($p < 0.01$)

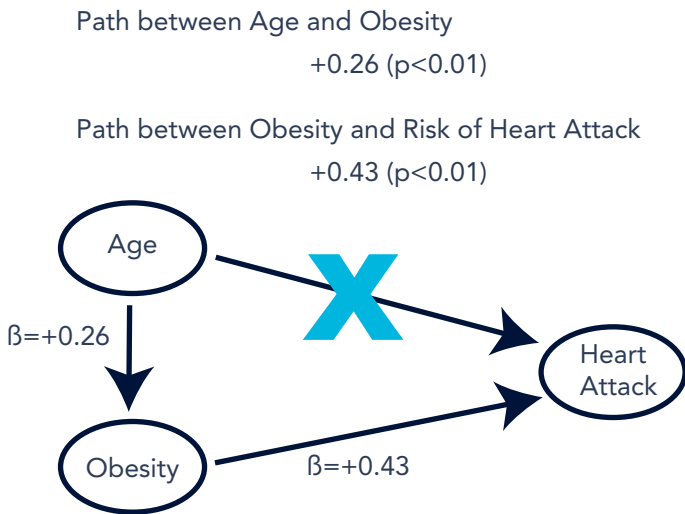


Correlation analysis is not an accurate or complete representation of the truth. In fact, as people grow older, their bodies tend towards obesity. In fact, it is obesity that leads to heart attacks, not aging itself. With first generation statistical analyses (correlation), it is easy to reach faulty

conclusions and fake misguided actions. In this example, if one wanted to solve the heart attack problem, they would either solve the age problem or obesity problem since they are both positively correlated. This, of course, is absurd.

By taking the exact same raw data and using path analysis with a causal model, one can determine which variable is the actual mediating driver of heart attacks. It turns out that age is actually an antecedent variable to obesity which is, in fact, the direct driver (Figure 2). One must address the obesity issue if one wants to zero in on the target variable. In fact, in a causal model, the direct path between age and heart attack is not statistically significant even though it is correlated. Remember the old adage: correlation speaks to association, not causation.

BELOW Figure 2: Causal Model,
Source: nGenera Insight Research



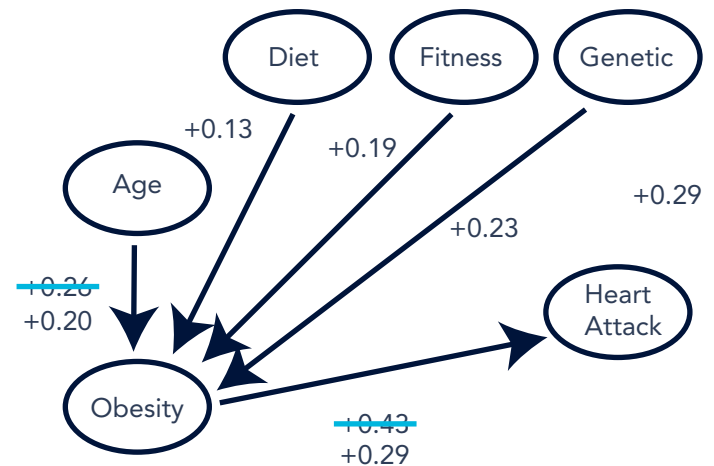
Assume that more variables are added to the model described above. Take for example, diet, fitness, and genetic predisposition. All of these variables would also be correlated to the propensity for a heart attack (Figure 3). But how do these variables interrelate to each other in a causal model?

In this case, it turns out that genetic predisposition is as significant a cause of heart attacks as obesity. The question becomes: Can anything be done about genetic predisposition? Since the answer is no, other avenues need to be explored. The next most impactful risk factor is fitness with a beta value of 0.19. As people endeavor to improve their level of fitness, their risk for heart attack lowers accordingly through a reduction of obesity. This methodology is then continued across all statistically significant causes of heart attacks.

Each time a new cause is identified as part of the heart attack risk example, the whole system must be reconfigured to take the new cause into account, while recognizing that some of the newly introduced elements may act as stronger

causes than others (fitness, diet, smoking, etc.). Adding new elements to the system allows one to see how other elements are interrelated. Interestingly, correlation values do not change at all, regardless of what new variables are added to the analysis. This means that these values would provide no intelligence about the underlying cause of heart attacks or how to prevent them.

BELOW Figure 3: Causal Model and New Variables,
Source: nGenera Insight Research



WORKING WITH CAUSAL MODELS

The structural equation modeling process is run by software (e.g., PLSgraph, SmartPLS, LISREL, AMOS). While it has no understanding of what any of the numbers represent, it does provide a very useful visual representation of data.

Once a model is established, it can be used to identify and improve problem areas. Specifically, it can be used to isolate and prioritize interventions (or action plans). In the healthcare example previously cited, the first point of intervention would be the development of a fitness plan (since we can't affect age or genetic predisposition). Once that antecedent driver is established, a causal model will predict the follow-on outcomes.

Furthermore, it is possible to see the degree to which one antecedent driver influences another, so if there are multiple causes for one problem, it is easy to determine which approach will likely yield the most effective results.

With the concept of causal modeling introduced, we will now examine the results of a company that conducted a survey that served as the basis for causal modeling of human capital data.

SURVEY DATA

An online survey was administered to several thousand employees at a Canadian Telco. The survey focused on ten work-related themes. Each of the following constructs had approximately two or three survey items.

1. Autonomy & Job Challenge
2. Company Direction
3. Consumer Focus
4. Effectiveness & Innovation
5. Employee Satisfaction
6. Information Sharing
7. People Development
8. Senior Leadership
9. Strategic Pillars
10. Supervisory Behaviors

Each survey item was based on a Likert-type scale requiring the respondents to agree or disagree with a statement. For example, the construct People Development was evaluated in terms of the following aspects of the respondent's job:

- a. I am given a real opportunity to improve my skills in this company.
- b. I have the opportunity for career mobility (internal transfer, promotion, etc.) within this company.
- c. In my work group, efforts to balance work and personal needs are supported by our leaders.

The same survey was administered in spring 2007 and again six months later, in the fall. The objective of the analysis was to determine the interconnected nature of these ten constructs. The following seven research questions were addressed—the first four reflect traditional statistical analyses and the latter three questions utilize causal models.

1. What behaviors are strongest now?
2. What behaviors are weakest now?
3. What's changed for the better?
4. What's changed for the worse?

The previous research questions are staples used in the analysis of most organizations' employee survey data.

5. What are the antecedent drivers of Effectiveness & Innovation, and Customer Focus?
6. What differences in antecedent drivers exist between Net Gen employees and the rest of the organization?
7. What causal links are getting better or worse over time?

By analyzing the survey results using structural equation modeling, not only is it possible to see how trends change over time, but also how these trends affect one another. Some of these constructs have a powerful influence on others and can be leveraged to bring about positive change throughout the entire organization—while adjustments in the causal model, from one administration to another, can determine whether the model's recommendations have longitudinal validity (i.e., reliability over time).

RESULTS

The response rate for both survey administrations was relatively high (79% in the fall, and 82% in the spring). The survey consisted of 44 survey items related to 10 constructs. Employees completed the survey anonymously. Survey respondents were geographically dispersed as follows: Ontario—55%, Quebec—37%, and Alberta and British Columbia accounted for 4% each.

Results were also segmented by respondents' tenure: 68% had been employed at the company for five years or more (Veterans), while 27% had been employed for at least six months but not more than five years (this demographic predominately contained Net Geners) and the final 5% of respondents had been employed for less than six months (Newbies).

Traditional reporting

Results based on traditional statistical analysis (derived from the answers to the first four questions) are as follows:

1. What behaviors are strongest now?

As of fall 2007, the construct with the strongest scores was Supervisory Behaviors. This result was determined by taking the average of all the mean scores for the items represented by this construct, and then ranking all the constructs from highest to lowest.

2. What behaviors are the weakest now?

As of fall 2007, the construct with the weakest scores was Senior Leadership. This result was determined by taking the average of all the mean scores for the items represented by this construct, and then ranking all constructs from lowest to highest.

3. What's changed for the better?

The largest positive change was for the construct Strategic Pillars. This result was determined by taking the average of all the mean scores for the items represented by this construct, and then ranking the changes in all constructs from spring to fall.

4. What's changed for the worse?

The largest negative change was for the construct Information Sharing. This was determined by taking the average

of all the mean scores for the items represented by this construct, and then ranking the changes in all constructs from spring to fall.

Causal model reporting

The causal model depicted in Figure 4 illustrates the overall interrelated paths from one construct to another. Beta path values are depicted in each corresponding arrow. Arrows exist between constructs, denotes substantive and significant direct links. Conversely, where arrows do not exist between constructs, this denotes insignificant links.

The simplest way to interpret the underlying meaning of a causal model is to start with the most antecedent (furthest left side of the model) paths.

Starting with Supervisor's Behavior, what are its main drivers?

- Senior Leadership (0.234) is 29% stronger than Company's Direction (0.181)
- The strong communication of the organization's Strategic Pillars has a relatively similar impact on the behaviors of Senior Leadership (0.399) and the overall Company's Direction (0.391)

People Development has two antecedents and three consequents:

- It is driven by Senior Leadership (0.404) and Supervisor's Behaviors (0.371)
- It drives three consequents with ever increasing magnitude: Employee Satisfaction (0.258), Information Sharing (0.343) and Autonomy & Job Challenge (0.534)
- PeopleDevelopment's link to Autonomy & Job Challenge (0.534) is twice as strong compared to Employee Satisfaction (0.258)

What are the main drivers of Employee Satisfaction?

- Company's Direction (0.373), Autonomy & Job Challenge (0.364) and People Development (0.258)
- However, the role of Autonomy & Challenge is both a direct and intermediary causal link

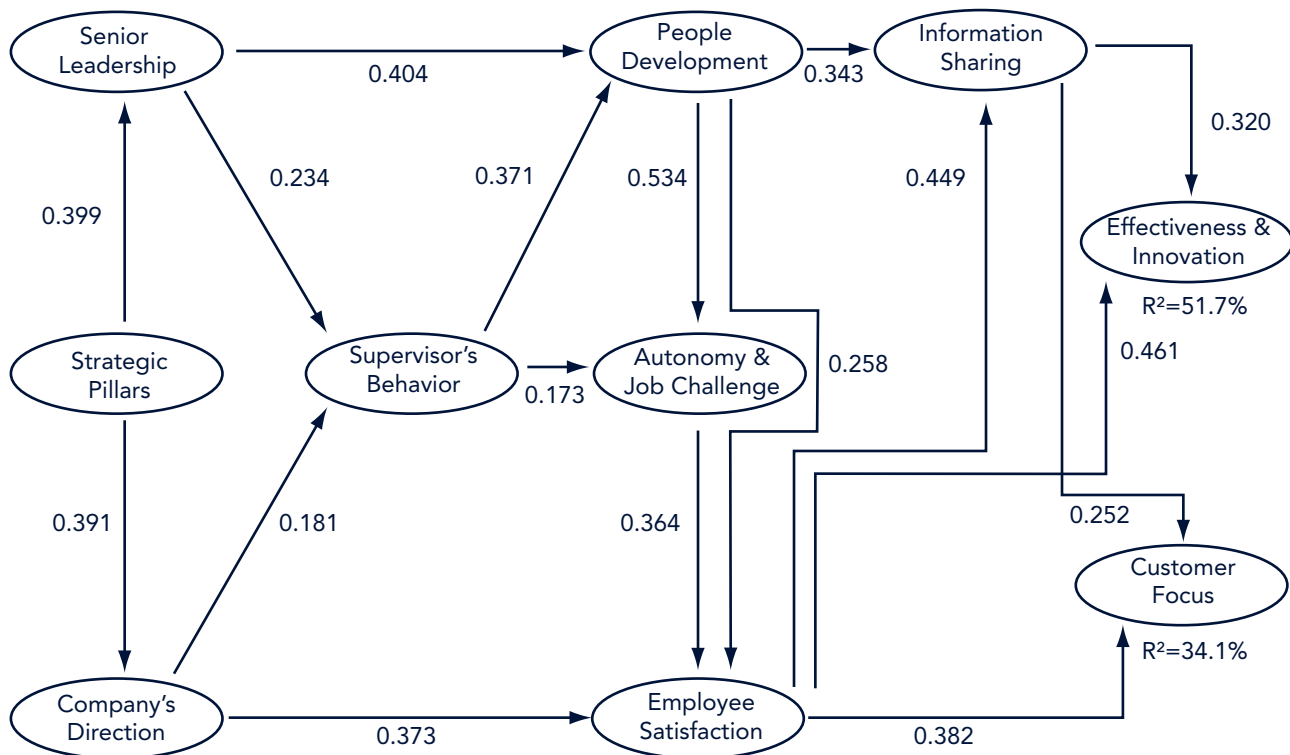
What are the antecedents of Information Sharing?

- Employee Satisfaction (0.449) is 31% stronger than People Development (0.343)

What are the antecedents of Effectiveness & Innovation?

- Employee Satisfaction (0.461) is 44% stronger than Information Sharing (0.320)

BELOW Figure 4: Fall 2007 Net Gen Causal Model, Source: nGenera Insight Research



What are the antecedents of Customer Focus?

- Employee Satisfaction (0.382) is 52% stronger than Information Sharing (0.252)

The model has extremely strong explanatory power of Effectiveness & Innovation (51.7%) and lesser explanatory power of Customer Focus (34.1%)—remaining variance is attributable to other constructs and quantitative metrics not included in the study.

5. What are the antecedent drivers of Effectiveness & Innovation, and Customer Focus?

The causal model shows that changes in Employee Satisfaction and Information Sharing drive Effectiveness & Innovation. Customer Focus is driven by Information Sharing and Employee Satisfaction in reverse order of magnitude.

6. What differences in antecedent drivers exist between Net Gen employees and the rest of the organization?

Figure 5 (over) highlights the causal model differences by respondent (Net Geners vs. Newbies vs. Veterans).

The causal model shows that the largest beta value difference for Net Gen employees is for the paths Strategic Pillars to Senior Leadership, and Company's Direction to Employee Satisfaction.

These results demonstrate that Net Geners pay very close attention to the actions and behaviors of their senior leadership. Moreover, the company's direction has less influence on Net Gener satisfaction than on Veteran satisfaction.

7. What causal links are getting better or worse over time?

Figure 6 (over) highlights the causal model differences by survey administration (spring vs. fall).

In the accompanying charts (Figures 5 and 6, over), blue paths improved over time, while red paths did not. From spring to fall, Strategic Pillars had a greater influence over both Senior Leadership and the Company's Direction. In turn, Senior Leadership became more influential over Supervisor's Behavior, which itself exerted more influence over People Development. People Development also had more of an impact on Information Sharing. Finally, Autonomy & Job Challenge's link to Employee Satisfaction strengthened, as did Employee Satisfaction's link to Effectiveness & Innovation.

Conversely, the causal model determined that the Company Direction exerted less influence over both Employee Satisfaction and Supervisor's Behavior at the time of the second survey. In turn, the influence exerted by Supervisor's Behavior over Autonomy & Job Challenge also

lessened over time. Finally, Information Sharing had less of an impact on Effectiveness & Innovation in fall than spring.

FURTHER RESULTS

Causal models can also reveal interesting results by showing which paths are not statistically significant (Figure 7, page 8). These results (see dashed links), at times, are even more important since they fly in the face of conventional wisdom.

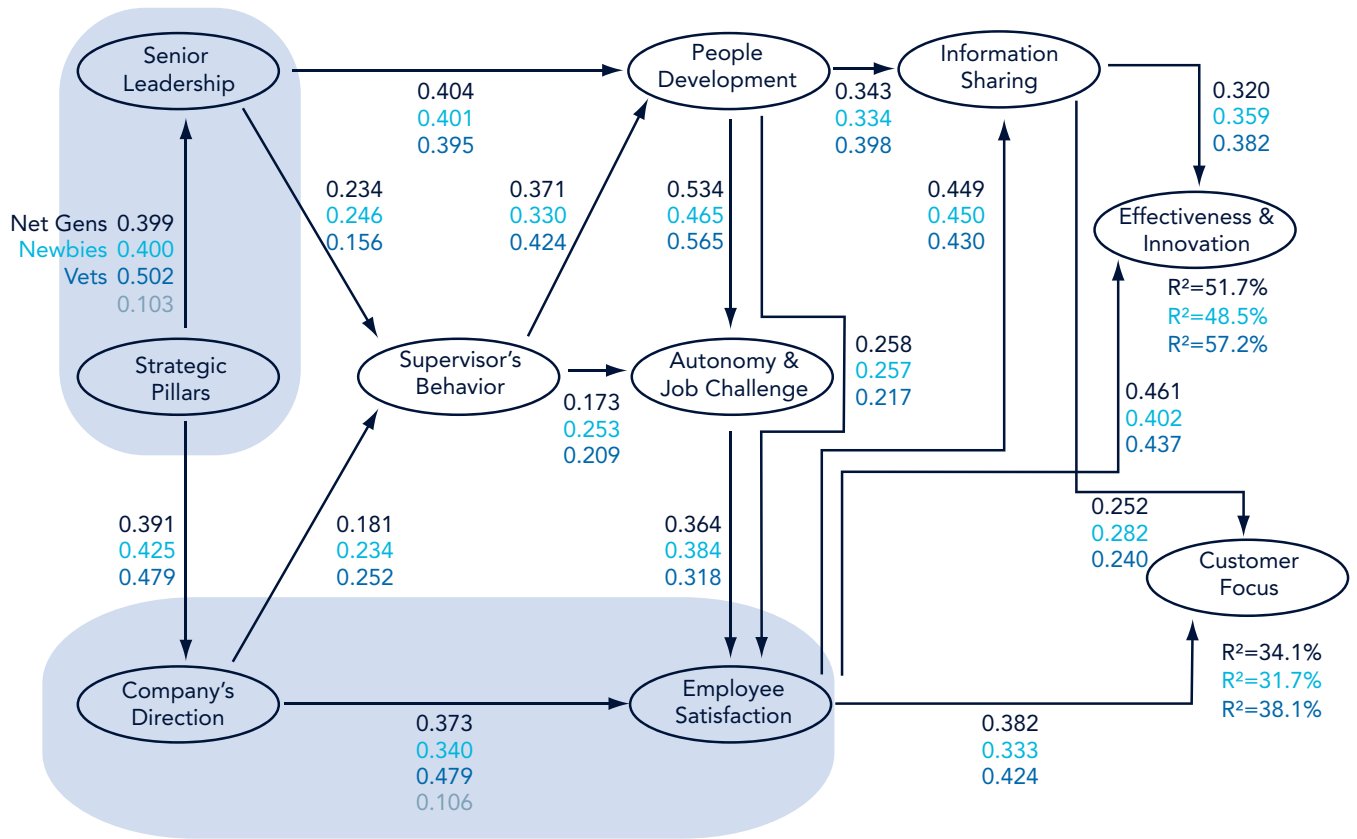
The influence of Strategic Pillars over Employee Satisfaction was not significant. This means that the overall direction of the company does not really matter to the day-to-day job satisfaction of the employees of this particular organization. Furthermore, Supervisor's Behavior did not influence Employee Satisfaction either. In fact, the most significant way a supervisor's behavior can impact employee satisfaction is by increasing the employee's autonomy and job challenge.

Strategic clusters

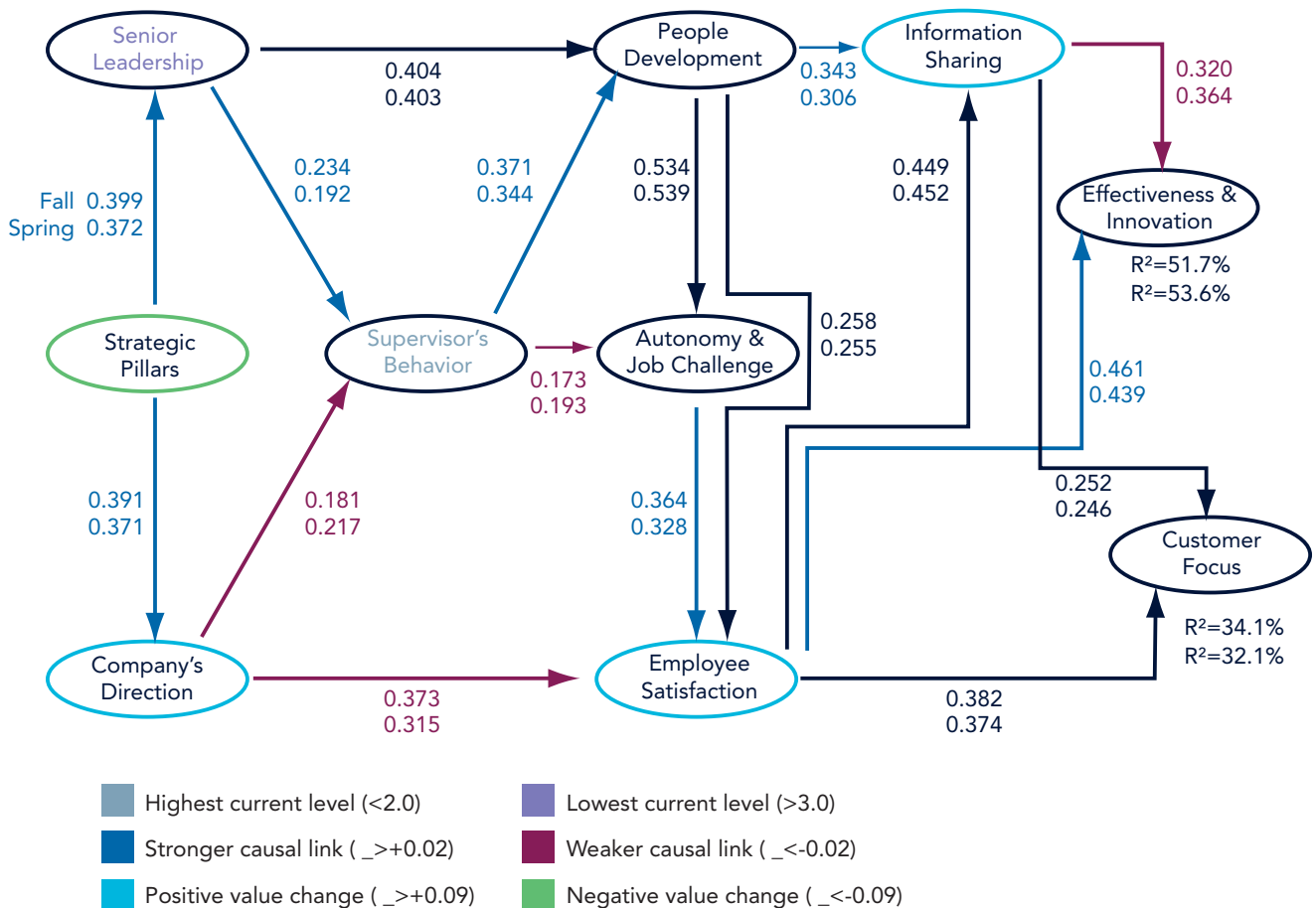
The results tended to group into four clusters:

- **Supervisor's Behaviors:** The most influential drivers here were Company's Direction and, to a larger degree (about 30% more), Senior Leadership. In turn, the Company's Direction and the actions of Senior Leadership are both equally affected by the company's Strategic Pillars.
- **People Development:** People Development is most strongly influenced by Supervisor's Behaviors and by Senior Leadership behavior. Supervisors operationalize what senior executives want, and as such, the supervisors become the de facto face of senior management. This cluster was different, however, for Net Geners: there was more importance placed on senior management. This means that Net Geners want an absence of rigid hierarchy and the freedom to interact with senior management.
- **Employee Satisfaction:** Increasing Employee Satisfaction leads to improved Information Sharing, Effectiveness & Innovation and improved Customer Focus. Employee Satisfaction itself is mostly influenced by Company Direction, Autonomy & Job Challenge, and People Development. In other words, employees feel better about their jobs when they have a strong understanding of company goals and their role in bringing them to life; are given freedom and are challenged to grow; and receive the company's support.
- **Customer Focus:** Customer Focus can be increased through better Information Sharing, or, to a larger degree, by improving Employee Satisfaction. Simply stated, customer focus improves when employees have a breadth of information, and the freedom to use it to help customers as they see fit.

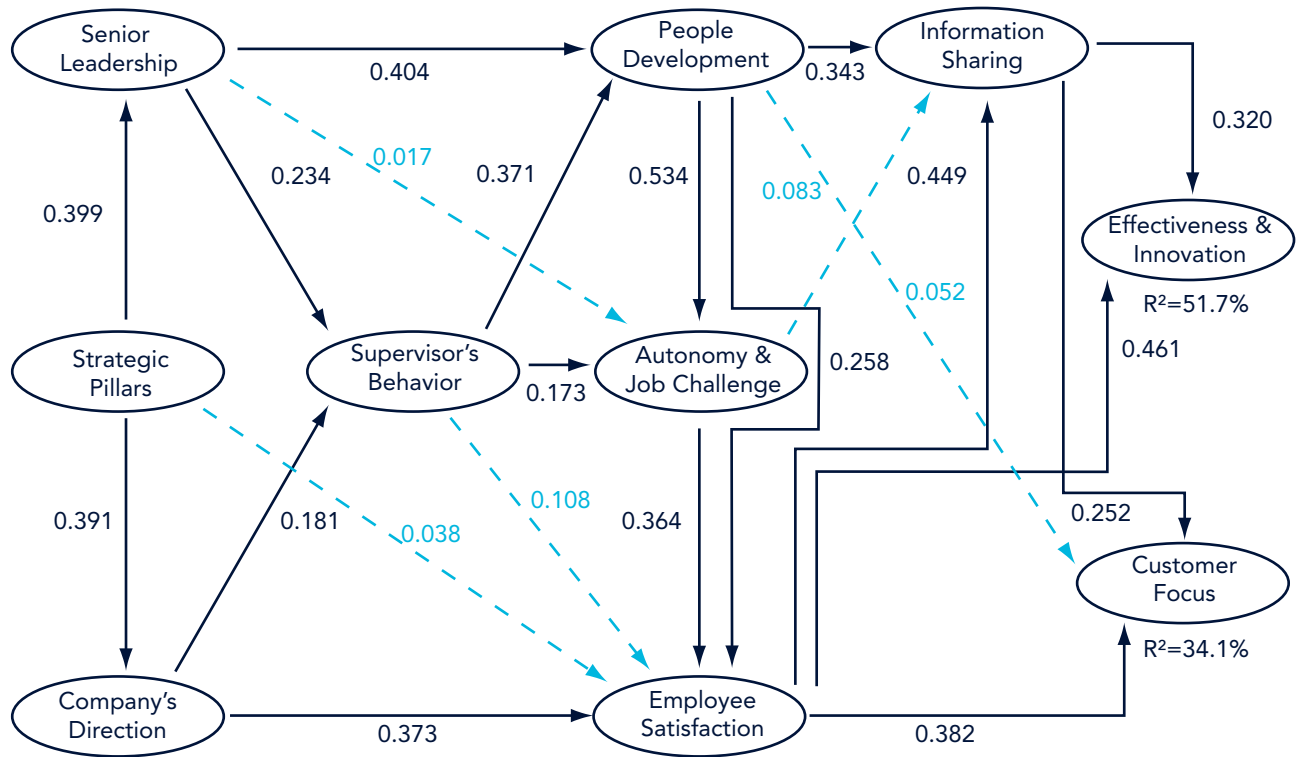
BELOW Figure 5: Net Gen vs. Newbies vs. Veterans, Source: nGenera Insight Research



BELOW Figure 6: Spring vs. Fall results, Source: nGenera Insight Research



BELOW Figure 7: Missing Links, Source: nGenera Insight Research



Isolating Net Geners

The study found that there was very little difference between Net Geners and Newbies (employees with less than six months service). The only significant difference was that for Net Geners, talent management has a greater impact on autonomy and job satisfaction.

The same cannot be said of Veterans. For this group, there is a much stronger relationship between Strategic Pillars and Senior Leadership decisions. This is easily explained: employees who have been with a company longer take a longer view when assessing senior management actions. Net Geners, however, have not yet had a chance to absorb as much of the overall strategic context of the organization. Veterans compare all new decisions against a much larger picture than the Net Geners and are better at seeing how senior decisions fit with the company's history and established path.

In particular, Net Geners want to be coddled, trained, and escorted to a career path. To have the greatest impact, these working conditions need to be reinforced by both Net Geners' immediate supervisors, as well as senior management.

APPLYING RESULTS TO ACTION

While the causal model does provide tremendous insight, as well as feedback and suggestions, it requires study and interpretation. The model can be leveraged to determine what steps should be taken first, and how interactions with the model should be executed. To best choose what actions to take, scrutinize the results against these four criteria:


- Focus on what's strongest:** In this survey, the strongest causal links were between Personal Development and Autonomy & Job Challenge, and between Employee Satisfaction and Effectiveness & Innovation. These areas can then be examined to determine why they were so successful, and those successful strategies, in turn, can be applied to themes that did not perform as well.
- Isolate current low level themes for improvement:** Senior Leadership was weakest and based on that, we can develop Senior Leadership itself, and/or invest in developing Strategic Pillars, as it is the only theme that significantly impacts Senior Leadership. Combining this with the previous step, the best strategies for the highest scoring themes can, where appropriate, be applied to the low ranking ones.

- **Develop plans to support themes that have the highest number of antecedents and consequents:** In this case, it happens to be Employee Satisfaction (with three antecedents and three consequents) and People Development (also with three consequences, but only two antecedents). These themes have the greatest ability to bring about change in a myriad of other themes, but, they also have the greatest number of antecedents. Carefully identifying which themes feed into the greatest number of other themes can go a long way to optimally choosing where development needs to be focused.
- **Select themes with the largest variance within the organization:** The idea here is to bring everything up to a common standard, so that the construct can be best dealt with as a whole. Calculate the difference between the best scoring group (i.e., geographical unit or business unit) and the worse scoring group. Isolate the constructs with the largest gap.

CONCLUSION

The causal model approach to analyzing statistics of any type delivers not only the tested and true statistical results, but also looks within the changes themselves to identify the key driving forces within a company. These results can be segmented across departments and demographics to provide an extremely rich explanation of how numerous overarching themes in a firm influence one another. These causal influences are clearly identified, and shown in context with one another, to enable smart and effective interventions.

Finally, the results themselves, when examined, can provide directions as to how scarce-resource allocations can be invested between constructs to maximize improvements across the board.

While HR's use of causal models and their application for internal survey results and human capital measurement is still in its infancy, it has already shown tremendous benefit and continues to show excellent promise. The organization in this case study was greatly enriched by seeing itself through the lens provided by the causal model—a lens that can be effectively and usefully repurposed to examine any organization. 

APPENDIX A: KEYS TO A SUCCESSFUL EMPLOYEE SURVEY

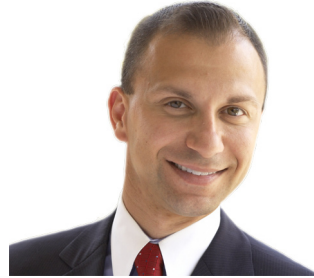
While causal models provide great depth of insight into a firm's inner workings, future assessments will do so to an even greater degree. Some characteristics of even more advanced methodologies might include:

- **Ongoing survey maintenance:** Many firms stop conducting internal surveys when their results are not favorable, and/or not immediately useful. This is a mistake. According to Dr. Bontis, not taking the pulse of your firm on a regular basis is roughly equivalent to driving without a speedometer, compass, signs, and road posts. He suggests surveying 1/12th of the employees, chosen randomly, 12 times a year. This approach produces more granular results and greater accuracy in tracking changes over time. From the point of view of the employees, they are still being surveyed only once a year so there is no survey fatigue, but the overall usefulness of the data has been greatly enriched.
- **Extend the survey to consider other drivers:** Items can and should be added to the survey to give greater resolution to the picture produced by the causal model. However, this has to be done with deliberation and restraint, or a survey can very quickly balloon to an unreasonable size. Dr. Bontis recommends only adding one to two items at a time, and only doing so when it is absolutely required. Conversely, firms should rarely (if ever) remove items from one survey to the next because doing so destroys any chance of longitudinal evaluation.
- **Integrate the survey with quantitative metrics:** Survey data can (and should) be integrated with quantitative information such as revenue productivity, voluntary and involuntary turnover and other human capital metrics. Triangulating perceptual measures with financial outcomes over time is immensely useful for executives. There are many examples of such causal models that Dr. Bontis has published here: www.NickBontis.com/Research.htm.
- **Generate external metrics:** Consider conducting similar surveys for suppliers and customers. Doing so paints a much larger picture, and, true to form with the internal analysis, can show precisely where scarce resources should be allocated to optimize interactions that don't happen exclusively within the confines of one organization.

ENDNOTES

- 1 The author would like to thank Jeff DeChambeau for his editorial assistance.

ABOUT THE AUTHOR



Dr. Nick Bontis is associate professor of Strategic Management at the DeGroote School of Business, McMaster University, Canada (www.NickBontis.com). He graduated with a PhD from the Ivey Business School, University of Western Ontario with the #1 downloaded thesis in Canada. He is the first professor at McMaster to simultaneously win four teaching awards (for the undergraduate program, the MBA program, the whole campus-wide university, and Ontario) and the faculty researcher of the year. *Maclean's* magazine has rated him as one of McMaster's most popular professors six years in a row. Dr. Bontis' research interests pertain to human capital measurement, knowledge management, intellectual capital and organizational learning. He has won numerous awards for his research and teaching and is recognized as a world-leading keynote speaker and authority on the topic of knowledge management. He has conducted causal model research for hundreds of clients in both the private and public sectors, transforming their mundane data into actionable tactics.

THE 8 NORMS OF THE NET GENERATION

nGenera Insight has identified certain normative attitudes and behaviors endemic to the Net Gen, which differentiate them from previous generations.

F R E E D O M C U S T O M I Z A T I O N S C R U T I N I Z E R S I N T E G R I T Y

To a Net Gener, choice is like oxygen. With the proliferation of media, sales channels, product types, and brands, Net Geners leverage technology to cut through the clutter and find the products that fit their needs. They expect to choose where and when they work; to be able to use technology to escape traditional office space and hours; and to integrate their home and social lives with their work lives.

Net Geners have grown up using media they can customize. With their own blogs and websites, personalized cell phones, TiVo, Slingbox, and podcasts, they get the media and information they want, when and where they want it, and alter it to fit their unique needs and desires. They want to be able to customize their workplace—doing things like helping improve work processes and having input into their own job descriptions.

They are the new scrutinizers. Older generations marvel at the consumer research available on the Internet: Net Geners expect it, and as they grow older, their online engagement increases. Net Geners know that their market power allows them to demand more of companies. As employees they demand trusting and transparent relationships with the companies they work for.

When deciding what to buy and where to work, they look for corporate integrity and openness. Whether they are exposing a flawed viral marketing campaign or researching a future employer, Net Geners make sure a company's values align with their own.


C O L L A B O R A T I O N E N T E R T A I N M E N T S P E E D I N N O V A T I O N

Unlike their TV generation parents, Net Geners interact with media and with others through media. They collaborate online in chat groups, play multi-user video games, use email and share files for school, work, or just for fun. They influence each other through "N-Fluence Networks," where among other things, they discuss companies' products and services and their consumer and employment brands. Having grown up being authorities on something important, they have a different view of authority in the workplace.

Net Geners want their work, education, and social life to be fun and entertaining. They bring a playful attitude to work—they know that there's always more than one way to achieve a goal, just like in the latest video game. They seek entertaining experiences in products and services. Workplaces must be fun—as work, learning, collaboration and entertainment are for the first time inseparable.

Net Geners need video speed—and not just in video games. In a world where information flows rapidly among vast networks of people, communication with friends, colleagues, and bosses takes place faster than ever. Marketers and employers should realize that Net Geners expect the same quick communication in return—every instant message should draw an instant response. Net Geners are speeding up the metabolism of business—for the good.

For Net Geners, digital tools have encouraged and facilitated innovation in all aspects of their lives. Marketers reach them in increasingly creative ways, while Net Gen business leaders have literally changed entire industries. Their need to innovate challenges established norms, some of which will need to be adapted, and some to which the Net Gen will need to adapt.



This report is an analysis of a Big Idea, presented as part of nGenera Insight's Talent 2.0: The Net Generation Strategic Investigation Program. The program, sponsored by leading companies such as yours, is investigating the impact of the Net Generation in the marketplace and in the workplace.

Research Leadership

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