

The (potential) dark side to self-efficacy: Does it always enhance performance?

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Abstract

Sales self-efficacy has been found to be positively related to sales performance. However, recent findings from extant literature identify certain boundary conditions, which indicate that self-efficacy may produce null or negative effects on performance. This paper argues the need for researchers to undertake within-person analysis in future self-efficacy research, critically highlighting boundary conditions of the self-efficacy/performance relationship may change dependent on whether the researcher is looking at the between-person or within-person level of analysis. Well-accepted logics from sales self-efficacy research may not necessarily generalise to the within-person level, highlighting a need for the relationship between self-efficacy and performance to be further examined. Ultimately, when processes are not stable, sales theories deliver a one-dimensional perspective to multi-dimensional theory, resulting in an incomplete understanding of the world around us.

(Within-person, level of analysis, sales performance, self-efficacy, longitudinal)

Track – Sales management and personal selling

1. SE: What We *Know*

“Training programs that enhance self-efficacy should be beneficial to the firm's long-run profitability” (Krishnan, Netemeyer, & Boles, 2002, p.292); this is a view that in recent decades is practically unchallenged by sales researchers. Self-efficacy is considered an important variable in sales performance models (Fournier et al. 2010). In the sales domain many articles consider the relationship between self-efficacy and salesperson performance, finding unanimously that salespeople with higher sales self-efficacy perform better than their lower-efficacious counterparts. This positive relationship is not unique to the sales literature: across a wide range of contexts, levels of self-efficacy consistently demonstrate a positive relationship with higher performance outcomes (Stajkovic & Luthans, 1998). As a result of these consistent findings and associated positive performance implications, it is generally accepted among those in the sales research field that higher self-efficacy in salespeople is desirable (e.g. Gupta, Gansta, & Kepes, 2013; Krishnan, Netemeyer, & Boles, 2002).

There are two levels of analysis open for consideration: between- and within- person. Although the self-efficacy/performance relationship seems quite concrete, with no empirical evidence within sales research to suggest otherwise, however all of these studies have been conducted at the between-persons level of analysis. That is, these studies conclude this relationship by examining differences between individuals. Within-person analysis looks at the process within an individual and examines changes over time. This is in contrast to between-persons analysis which studies differences between individuals at one or more time point. Only a longitudinal repeated-measures dataset can test theory at the *within-person* level of analysis, and since longitudinal research designs are rarely utilised within sales literature (Bolander, Dugan, & Jones, 2017), it is unsurprising that most sales self-efficacy studies utilise a between-persons design. It is proposed that when the level of analysis changes, potential changes in the self-efficacy/performance relationship might occur. This paper aims to demonstrate the importance of conducting research examining the sales self-efficacy/sales performance relationship at the within-person level, understanding how by analysing self-efficacy at a different level of analysis (within-person) can change the magnitude, or even direction, of this well-established relationship.

Consistent with Molenaar (2004), it is only under strict conditions (which are very rarely met), that generalisations from inter-individual differences can be applicable to intra-individual change. This makes sense, since conceptually within-person self-efficacy is distinct from between-person self-efficacy. This is because when examining relationships, the true

reference point for change is at the intra-individual level, and therefore it is not possible to accurately examine an individual's change by comparing him/her to another person.

A within-person analysis examines intra-individual change (i.e., change within a person), examining the longer-term process within an individual, rather than testing theory by comparing inter-individual differences (i.e., comparison of individuals against each other). Significantly, it is at the within-person level where non-positive effects of self-efficacy on performance have been found in wider literature. At the within-person level of analysis, findings of a consistent positive relationship between self-efficacy and performance are much less conclusive. For example, studies find positive effects of intra-individual increases in self-efficacy on individual performance (e.g., Seo & Ilies, 2009; Gilson, Chow & Feltz, 2012), negative effects (e.g., Vancouver & Kendall, 2006; Yeo & Neal, 2006), and others null effects (e.g., Richard, Diefendorff & Martin, 2006; Beattie et al., 2011).

It is clear from this that the self-efficacy/performance relationship requires further examination within sales research, not utilising static one-shot studies analysing inter-individual differences, but repeated-measures data analysing intra-individual change in self-efficacy over time. Currently, only differences between individuals and how they influence important sales outcomes are understood, yet nothing is known about the intra-individual level, which is seen by some as the fundamental unit of importance within psychology (Hoffman, 2015). Indeed, wider literature demonstrates this as an area which could change the way we think about self-efficacy as an undisputedly positive attribute for salespeople.

Understanding the world around us is the fundamental objective of research, whether it is to generate new theory, or build upon existing theory. Methodological and analytical developments consistently enhance researchers' ability to contribute new knowledge to theory. Most processes evolve over time and are rarely static (Curran & Bauer, 2011), and a combination of both between- and within process, and how they interact, will generate a much more detailed understanding of theory and phenomenon within them. Sales self-efficacy varies both between- and within person, and currently only one source of variance is understood. With the help of new methodological and analytical developments, within-person research is gaining traction outside of the sales literature (e.g., Curran et al., 2014; Voelkle et al., 2014), and arguably it is time for sales researchers to follow this lead.

The next section will discuss how the self-efficacy/performance literature demonstrates (a) how the relationship can change dependent on the level of analysis, (b) why

between-person self-efficacy findings should not be used to generalise at the within-person level, and (c) why sales research must be cautious of the implications discussed as a result of research findings.

2. Self-efficacy: Is There Such Thing as Over-confidence?

Self-efficacy is defined as a person's belief in their capabilities to successfully complete a task (Gupta, Gansta, & Kepes, 2013). Specific forms of self-efficacy are better judgements of ability since they are more accurate measures of confidence in one's ability in a specific context (Bandura, 2012). Additionally, for within-person research, general self-efficacy is less optimal since it is considered to be more trait-like (Chen, Gully & Eden, 2001), and thus the within-person variation will be less. Specific to the sales context, sales self-efficacy is defined as an individual's belief in their ability to successfully undertake their sales duties, and consequently will be a more accurate perception of a salesperson's confidence in their ability to perform well in sales-related activities than general self-efficacy

As mentioned, by looking purely at the sales self-efficacy literature, there are - so to speak - no 'red flags', when considering the relationship between sales self-efficacy and sales performance. However, as with many constructs examined in the sales literature, self-efficacy can change over time (Tolli & Schmidt, 2008), thus ruling out the possibility of drawing within-person conclusions from between-persons self-efficacy research (Molenaar, 2004). It is important to understand the different relationship dynamics when comparing findings between the two levels of analysis. Analysing changes in oneself is very different from comparing them to someone else; thus, within-person self-efficacy and between-person self-efficacy are conceptually independent. When thought of in this way, it is not surprising that a number of significant boundary conditions to the relationship between self-efficacy and performance differ between the levels of analysis.

Providing more detail on the within-person self-efficacy literature, it was the seminal work of Vancouver, Thompson, and Williams (2001) which first identified a potential negative relationship between self-efficacy and performance. Consequently a raft of studies began to examine the potential negative effects of self-efficacy on performance, with research identifying that, under certain conditions, self-efficacy may not positively influence

performance at the within-person level. Both Schmidt and DeShon (2010), and Beattie et al. (2016) find performance feedback ambiguity to moderate the within-person relationship between self-efficacy and task performance, such that under high ambiguity conditions, within-person self-efficacy is negatively related to within-person task performance, whereas in low ambiguity conditions, within-person self-efficacy became positively related to within-person task performance. Conversely, the between-person self-efficacy/performance relationship exhibits a positive relationship under *both* ambiguity conditions (Schmidt & DeShon, 2010). Another moderator - task complexity - can also demonstrate a contradictory relationship across the levels of analysis. Beattie, Fakehy, and Woodman (2014) find that under low task complexity conditions at the within-person level, a non-significant relationship between within-person self-efficacy and performance is demonstrated; however, in a meta-analysis of the between-person self-efficacy/performance relationship (Stajkovic & Luthans, 1998), the relationship is positive.

Additionally, effort allocation is discussed by self-efficacy theorists as the primary mechanism by which self-efficacy influences performance (Bandura, 1982). In other words, it is theorised that those high in self-efficacy will exert more effort than others, leading to greater performance. At the between-person level, results unequivocally suggest this relationship (e.g., Stajkovic & Luthans, 1998); however, research examining within-person changes suggest that in cases where individuals *already have* high self-efficacy, increasing their self-efficacy further (i.e. a positive within-person change) may actually *reduce* a person's effort, resulting in decreased performance (Beck & Schmidt, 2012). Put simply, within-person self-efficacy demonstrates hugely significant differences in its relationship with within-person performance than does between-person self-efficacy's relationship with between-person performance. The within-person self-efficacy/performance findings still suggest that a positive relationship exist; however, it reveals that this is not the case for *all* individuals.

Confidence is no doubt an important characteristic for salespeople. However, the within-person findings suggest that too much confidence will begin to decrease an individual's performance. Perhaps salespeople become over-confident in their ability to reach their sales goals, focusing their energy (or time) elsewhere, and thus neglecting those tasks directly related to enhancing performance. Vancouver and Purl's (2017) computational model suggest such a situation can happen. This model suggests that the importance attributed to the goals an individual believes they must achieve will determine the behaviours a salesperson

will demonstrate. If a salesperson becomes overconfident, perhaps they may focus less on performance-based behaviours, and involve themselves too much in extra-role behaviours (or even non-work behaviours), therefore exhibiting less effort towards their sales performance

The current implications from the sales self-efficacy literature draw within-person implications from between-persons research; for example, Krishnan, Netemeyer, and Boles (2002) draw the implication that a self-efficacy enhancing training programme should increase a firm's long-term profitability. However, their research compares the self-efficacy of different salespeople, at no point examining how individual changes in self-efficacy will influence profitability. This may well be the case at the firm level; yet at the individual level varying effects may occur, including some negative effects. This highlights a specific need for researchers to conduct research on within-person sales self-efficacy and sales performance. There are certain circumstances whereby delivering a self-efficacy intervention may have a null or negative influence on intra-individual performance. Specifically, for salespeople already highly confident in their ability to undertake their sales duties, when they (a) perceive their rewards to be inadequate, (b) work in a highly ambiguous environment, or (c) perceive successful sales performance to be easily attainable, enhancing the salesperson confidence further may not demonstrate the positive influence expected, and in certain cases, may even negatively influence intra-individual sales performance. The findings from the within-person self-efficacy/performance literature outline research questions of interest for sales researchers, specifically:

RQ1: Does reward perception moderate the within-person self-efficacy/performance relationship for individuals with high between-persons self-efficacy experiencing positive within-person changes in self-efficacy.

RQ2: Does role ambiguity moderate the within-person self-efficacy/performance relationship for individuals with high between-person self-efficacy experiencing positive within-person changes in self-efficacy.

RQ3: Does goal difficulty moderate the within-person self-efficacy/performance relationship for individuals with high between-person self-efficacy experiencing positive within-person changes in self-efficacy.

There are of course a plethora of other potential moderators of this relationship. However, the extant within-person self-efficacy performance literature has currently only

identified these three moderators. Since all are apparent within the sales environment, it is important to explore this further.

Conclusion and Directions for Future Empirical Research

It is proposed that by sales researchers beginning to conduct within-person analysis that the sales discipline will advance its knowledge significantly. Specific to self-efficacy and its relationship with performance, extant literature has revealed that sales self-efficacy may potentially demonstrate some negative effects on salesperson performance in certain circumstances, and until sales researchers rule out these potential detrimental effects, practical implications must be cautious as to the generalisability of their findings. It is important to examine the above research questions, since self-efficacy may not be the unfailingly positive antecedent to performance currently assumed by sales researchers. Many other important sales processes may also experience these contrasting findings, and consequently it is important that sales research begins to examine processes over a period of time. Understanding both intra-individual changes and inter-individual differences in intra-individual change will – overall - help to build a better knowledge of the world we live in, starting with an increase in our understanding of the self-efficacy concept in the sales domain.

Of course, it is likely to be the case that the lack of extant within-person research in sales is due to the difficulty of carrying out empirical work. Specifically, there are considerable practical and technical complexities to collecting and analysing data to test within-person hypotheses. First, researchers must collect data across at least three time periods on the same individuals, with four and five measurement occasions required for the researcher to test for quadratic and cubic trends, respectively (see McArdle & Nesslerode, 2014). Second, when, and how often a variable should be measured should be guided by theory (Bolander, Dugan, & Jones, 2017). Third, more complex analytical techniques are typically required, which can account for (a) the violation of independence of measurements, (b) appropriate separation of within- from between- person variance, (c) the role of time in the analytical model, and (d) attrition of participant throughout the study. These issues are outside the scope of the current paper, however interested readers should see McArdle and Nesslerode (2014), Curran and Bauer (2011), and Hoffman (2015).

However, despite the inherent challenges of conducting rigorous within-person empirical work, it is the case that current between-person approaches to research cannot justify the within-person conclusions drawn in many studies. As such, in order to robustly derive the implications that so many sales researchers wish to draw about self-efficacy, within-person research is essential. We hope this paper will inspire authors to more seriously consider adding within-person approaches to their conceptual and empirical toolkit when exploring sales self-efficacy.

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