

Gen AI Avatar Sales Training: Exploratory Mixed Methods Examination of Diffusion

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Sales role play is a widely used method for training sales professionals, but it presents structural challenges related to time, convenience, reporting, and consistency. Traditional role play requires two individuals to coordinate schedules, assume buyer and seller roles, and may involve a third person for observation and feedback. Generative AI avatar sales training offers a potential solution to these challenges, yet research on best practices for Generative AI avatar sales training engagement and efficacy is limited or dated.

This study examines Generative AI avatar sales training through a mixed-method approach involving students and faculty in a large intercollegiate sales competition. Training engagement data from participants were analyzed in combination with competition results using statistical methods, while faculty provided qualitative insights through semi-structured interviews to contextualize the training environment. Sales faculty and intercollegiate sales students are like sales organizations in practice as sales fac-

ulty are de facto sales managers who often have significant practice experience and intercollegiate sales competition students are typically upper classmen who are destined for sales careers shortly.

Research findings reveal that, despite strong intrinsic and extrinsic motivation among students, just 40% of invited competitors utilized

Generative AI avatar sales training offers a promising addition to traditional role play but faces uncertain adoption. This study examines engagement in an intercollegiate sales competition, revealing a statistically significant link between school experience, use, and performance. Findings are explored through theories of innovation diffusion, rugged landscapes, and self-determination.

the offered training. Among those who did use the training, a statistically significant relationship between school experience, average role-play training session length, and competition performance was observed. Schools with the most experience in intercollegiate sales competitions had the greatest benefit from the training. The study consid-

ers Innovation Diffusion Theory, the Informing Science Rugged Landscape, and Self-Determination Theory to interpret these results and identify options to improve adoption of Generative AI avatar sales training for sales students and practice. Summaries of the referenced theories are provided (see section “The Theories”).

Keywords: Sales Training, Generative AI, Avatars, Innovation Diffusion, Self-Determination, Informing Science, Sales Education

Each spring, college students from across the country gather at the University of South Florida Muma College of Business to compete in one of the largest intercollegiate sales competitions, Selling with the Bulls. Known as the “Toughest Test in Sales Education”, the competition earns its reputation through its highly competitive field, diverse range of events—including networking, prospecting, discovery, and sales meetings—and its intense, compressed timeframe of just 28 hours (University of South Florida, n.d.-b). Students compete as individuals and teams for awards. Business Partners in the Center for Marketing and Sales Innovation (University of South Florida, n.d.-a) act as buyers and judges for competitive events. Teams of four students from a school are placed into one of three flights based on the school’s relative experience in intercollegiate sales competitions. By separating the schools, the competition ensures every student competes in every event, and students are provided three times the opportunity to be recognized. To ensure a head-to-head winner for the role plays, students who place first in their respective second round rooms are grouped together in round three rooms per flight. The remaining competitors are distributed to the other competition rooms by flight to limit the number of competitors who have been in the same room in prior rounds. Students and faculty are not notified which rooms are the round 2 winner rooms.

As part of the 2025 competition, each participant was granted seven complimentary role-play training sessions on a Generative AI avatar sales training platform provided by Copient.ai (Copient.ai, n.d.). The vendor claims its platform improves salesperson performance by leveraging LLM-powered avatars to provide unscripted role-play simulations with automated scoring and feedback at scale. Copient.ai provided the student training data for the analysis but was not involved in analysis of the data. Mixed-methods research was employed to assess the effectiveness of the Generative AI sales training. Competitor training data and competition outcomes underwent statistical analysis, while nine faculty members who coached competing teams participated in semi-structured interviews. The competition and Generative AI avatar training presented a unique opportunity to explore the best training practices and the impact of training on highly motivated sales students who typically join the workforce shortly in entry level sales roles.

Despite training availability, reminder messages, and the students’ high motivation, almost 60% of invited competitors did not utilize the training. Among those who leveraged the training, the average usage was 41% of the total provided role-play training sessions. Statistical analysis revealed a statistically significant interaction effect between school experience in intercollegiate sales competitions and the aver-

age length of a student’s role-play training sessions ($p=.028$), on placement in the competition rooms. Additionally, interviews with faculty found adoption patterns aligned with diffusion constructs from Innovation Diffusion (Rogers, 2003) and the Points of Fitness framework in Informing Science (Gill, 2010).

The implications of this research are significant for both sales educators and commercial sales leaders. First, motivation alone does not ensure adoption, suggesting that additional theoretical frameworks beyond motivation are needed to better understand adoption diffusion. Second, the interaction effect of school experience with the average duration of training suggests that a minimum level of competency (skills or confidence) may be required to benefit from this new form of training. The sales faculty in the study had on average almost 20 years of sales experience. The faculty function as de facto sales managers in preparing students for sales competitions and students are soon entering the workforce making the insights from this practice experienced sales faculty particularly important. All interviewed sales faculty identified time-shifting, increased capacity, and onboarding as primary benefits and applications of the training platform.

Review of Research

Two research efforts were conducted in this project. In the first research path, student training data from role-play training sessions with a Generative AI avatar training platform were combined with competition results from a large intercollegiate sales competition. The data was analyzed using various statistical measures. In the second research path, nine collegiate faculty who coached students in the competition were interviewed. Faculty responses were grouped and then compared to develop insights into the best practices in competition preparation, training platform use, and perspectives on employing Generative AI avatar sales training in the classroom and in practice.

Quantitative Data Analysis

Descriptive and predictive statistics were calculated on a combined dataset of sales training data collected by the sales training platform and the intercollegiate sales competition results.

Sample Population and Background

The population for this study is unique. Students that compete in intercollegiate sales competitions are selected by their faculty coaches to travel to intercollegiate events. The students are typically involved in sales preparation at their university and have expressed a desire to pursue a career in sales. It’s common that the students have prepared for weeks if not months for the competition and may compete in both internal and intercollegiate events. Building

on the competitor's strong internal commitment, multiple businesses attend the competitions with the goal of recruiting the competitors for internships and full-time roles. The competitions also have multiple awards for individuals and teams adding strong external motivation. The intercollegiate competition that is the subject of this investigation, "Selling with the Bulls", is one of the largest intercollegiate sales competitions in the United States. 156 students from 31 schools and 20 states registered to compete in the four-event competition. The four events in the competition include Prospecting (email, voicemail, LinkedIn, and phone call), a discovery meeting, a sales meeting, and a networking competition. The Round 1 sales prospecting and networking event are particularly unique to this competition and were therefore not included in the analysis or focus of the Generative AI avatar training.

Another unique element of the competition that also provided a level of analysis is that in Selling with the Bulls the schools are placed in one of three flights based on the school's experience in intercollegiate sales competitions. The 2025 competition had 20 total competition rooms distributed among the three flights. Flight 1 (most experience) had six rooms, and Flight 2 (middle experience) had seven rooms, and Flight 3 (least experience) had seven rooms. The number of students competing per room ranged from six to eight. Within each flight students were placed in rooms so that students did not compete with other students from the same school. The competition order was determined based on random number selection for the school in the first round. An algorithm was used to distribute students in Rounds 2 and 3 to increase the likelihood students would compete against different students. To ensure there was a winner in each flight for the in-person role play events (Round 2 and Round 3) the students who were placed first in their respective Round 2 rooms are placed together in each flight in Round 3. Independent variables included in the analysis were the number of role-play training sessions per student, the average duration of role-play training sessions (minutes), the time span the student interacted with the platform (calculated from first to last trial

date / time in hours), total time in training (minutes), average score on training (out of 100), and the flight the student competed in (1, 2, or 3). The dependent variable in the analysis was the students' place in Round 2 and Round 3 competition rooms (1-8).

Quantitative Analysis Results

As a result of the logistics associated with students and schools attending the competition, 146 of the 156 competitors were sent emails with registration a registration link to participate in the Generative AI avatar sales training. 59 of the 146 (40.4%) competitors invited to use the platform interacted with the system at least once. The average number of platform role plays by the 59 students who used the system for training was just under three (2.9) and the average score was 73 out of 100 on the role-play training sessions. There was a wide span in the time from the first to last trial in some instances and usage ranged from consuming the full allotted seven role-play training sessions to just one session.

There was a major snowstorm across the United States that prevented some students from participating in the competition. As a result, 145 total students (used the platform and did not use the platform) were analyzed. Data was collected on each trial of the system for each student. Data from the Discovery rounds and Sales Meeting rounds were combined with entries of competitors who were invited to use the training system (used and not used) and competed in the event.

Table 1 lists data collected in the quantitative analysis.

A T-Test of the student places earned in Round 2 and Round 3 and the grouping variable of use / non-use of the Generative AI avatar sales training revealed a statistically significant difference of means with, $p=.048$. A correlation matrix showed no statistically significant results of the independent variables with the dependent variable competitor place in the competition room. As expected, a competitor's score in the training was found to be correlated with the number of role-play training sessions and the Time Span for Role-play Training Sessions and the Av-

Table 1: Summary of Student Engagement	
Number of Students Registered for Competition	156
Number of Students Invited to Training Platform	146
Number of Students who Trained	59
Average Number of Role-play Training Sessions per Trained Student (out of 7)	2.9
Average Duration of Role-play Training Sessions per Trained Student (HH:MM:SS) – Competition Maximum 10 minutes Round 2, 15 minutes Round 3	00:10:57
Average Role-play Training Session Score of Trained Student (out of 100)	73

erage Number of Role-play Training Sessions was correlated with the Time Span for role-play training sessions. Table 2 in Appendix A lists the correlation matrix.

At a more granular level the average ranked position (place) of students who trained and those that did not train were compared for each of the 20 competition rooms in Round 2 and Round 3. The findings support the T-Test of a difference in performance for the two approaches to preparation. One room in each round had no students who trained using the Generative AI avatar sales training, thus reducing the total rooms to be compared to 19 in each round. In Round 2, the average ranked position for competitors who trained with the Generative AI avatar sales training was lower in 11 of the 19 rooms. The average ranked position was the same in one of the rooms leaving the competitors who did not train having a lower average ranked position in 6 of the rooms. Interestingly, in the most experienced group of schools (Flight 1) all six competition rooms were either tied or had a lower average ranked place for students who trained with the Generative AI avatar sales training. Competitor rooms were significantly changed in Round 3. The winners from Round 2 rooms were grouped in competing rooms by flight and students were shifted to maximize the number of different competitors. Once again one room in Round 3 had no competitors who had used the Generative AI avatar sales training, so the total room count for comparison in Round 3 was 19. In nine of the 19 rooms competitors who had leveraged the Generative AI avatar sales training had a lower average ranked position and four rooms were tied. Across the two rounds of 38 rooms, students who did not train had lower average ranked positions in just over one-third of the rooms (13/38). In comparison, students who trained with the Generative AI avatar sales training had lower average ranked positions in just over half of the rooms (20/38). Table 2 in Appendix A provides details on the average ranked position analysis.

Next, a linear regression was performed with a statistics software package (JASP 2025) the place the student received in the Round 2 and Round 3 competition rooms as the dependent variable, the school flight, and the training platform data as independent variables. The independent variables examined in exploration models included Average Score, Number of Role-play Training Sessions, Average Role-play Training Session Duration, Training Time Span, and Flight (school experience). The interaction effects of Score, Interactions between Flight and the other independent variables were also examined. Roughly 16% ($R^2=.166$) of the variation in student place in the competition rooms was explained by the model. The most notable independent variable in the model was Flight with Flight (3rd), being almost

statistically significant at 95% confidence ($p=.058$). This finding suggested the potential for interaction effects. The interaction between Flight and Average Training Trial Duration was found to be important. Duration * Flight (3rd) was statistically significant at 95% confidence with $p=.028$. Interestingly Duration * Flight (2nd) was also more significant than other measures with $p=.072$. The coefficient signs for Flight (3rd) * Duration and Flight (2nd) * Duration were negative and consistent with experience, Flight (2nd) * Duration = $-.322$ and Flight (3rd) * Duration = $-.418$. The increasing negative coefficients suggest students from schools with more experience benefited more when compared to their peers from schools with less experience.

Qualitative Data Analysis

Nine sales faculty that coached competitors in the sales competition were interviewed via Microsoft Teams to gain a more expansive understanding of the faculty's decision making, experience, program, practice, and thoughts about future applications of the Generative AI avatar sales training technology. Faculty were purposefully selected to provide a diverse sample of school size, experience, and use of the provided Generative AI avatar sales training. Nine faculty were invited and all were interviewed. Saturation was achieved within the scope of the questions. Interviews were recorded and transcribed. The interview transcriptions were coded using Nvivo 14 which was accessed through a university remote desktop application (Lumivero, 2023).

School web site data was supplemented with information from the interviews to identify characteristics of the schools and associated sales programs. Three faculty were from smaller schools (less than 10,000 students and three of the faculty were from large schools (more than 30,000). It was interesting to learn that seven of the nine programs and all the established programs received their funding from their own efforts (grants and sponsors). Most of the faculty also had substantial sales experiences in various industries before their roles in academics. Seven of the nine faculty had at least 10 years of experience and only one faculty member had no prior sales experience in industry. The faculty uniformly highlighted time as a limited resource in their work. Figure 1 lists information regarding the nine programs and faculty for the schools that were interviewed.

Three of the faculty that were interviewed were from programs that made minimal use of the sales training and three of the faculty were from programs with competitors that on average used at least 2.5 of the seven training role-play training sessions provided. The schools that leveraged the training the most (Programs 7, 8, and 5) had different approaches compared to the other schools.

	Program 1	Program 2	Program 3	Program 4	Program 5	Program 6	Program 7	Program 8	Program 9
Total Students	2,600	4,000	8,000	12,000	24,000	22,000	58,000	35,000	50,000
Working Students (%)	50%	60%	60%	70%	65%	70%	65%	55%	60%
Commuters vs. On-campus	Mostly on-campus	Mixed	Mixed	Mostly commuters	Mixed	Mostly commuters	Mixed	Mostly on-campus	Mixed
Sales Competitions Attended	1	2	2	5	4	3	4	4	6
Own Sales Competition	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Sales Classes Offered	3	3	3	5	3	4	7	7	4
Program Existence (years)	5	7	6	15	10	6	12	9	8
Respondent Sales Experience (years)	21	37	0	2	10	20+	25	30	25
Number Sales Faculty	1	3	1	2	1	2	2	2	2
Sales Classes	3	3	3	5	3	4	7	7	4
Number of Students per Class	14-20	6-24	20	25	50	20-25	40	30	50
Student Organization Size	0	10	10	10	0	35	100	70	80
Funding	Foundation	University	Grants	Sponsors	Sponsors	Sponsors	Sponsors	Sponsors	Sponsors
Attempts / Eligible students	0.00	0.00	1.75	1.25	2.63	2.13	5.25	3.25	~0

Figure 1: Background Information on Interviewed Faculty and Associated Programs

Program 7 demonstrated a strong centralized leadership approach that required using the sales training platform and commented:

Print your results. And each one of you, you're gonna bring it back for the next meeting, and we're gonna analyze what it is that is telling you.

Program 8 had prior experience with a Generative AI avatar training program, noting:

One of our top-tier partners and we did a really cool competition with them. That was based on a platform they use, which I am now using, which is an AI role play avatar called <platform>.

In yet a third differentiated approach to adoption, Program 5 had a resource to manage the process of logistics, and students are part of the sales certificate and in the sales organization:

So one of those workers. I dedicated to the sales team and they are handling logistics. They are handling communication. They're holding schedules. But what we do is if you're accepted into our certificate program. You're considered to be a member of the Center for Sales and Service Excellence

The difference with the schools that did not leverage the platform were stark. Programs 1 and 2 were small new programs. Program 1 had students traveling and little time to prepare and Program 2 had sufficient resources to rely on in-person role play to prepare.

Program 1 commented.

I think it would be great. I showed it. Actually, there's an alum that was going to help me a little bit, but again we because the scheduling conflicts with the student's travel, we just couldn't make it work.

Program 2 shared:

Whether that's the endowment or other things, we have amazing resources. I have spoken to <name>, the department

chair, about the advantages of the system of the platform that I that you all ran and made available. I was pretty impressed with it.

Program 9 presented an entirely different situation. Program 9 is a large established program that focuses on new students competing in competitions. Program 9 shared the following thoughts on training with the Generative AI avatar sales training application:

... an informal survey, and it was overwhelmingly negative. Students felt that it was they. They did not want to be held accountable.

this may been a function of me not having the time to sit there and explain what has to happen and set the expectations that they must do this.

I think students prefer to meet with someone else or meet with me. Probably because they're not prepared as much as they should be. They don't really know the case and they felt that again the the AI would vet that out very quickly. It'd be obvious they didn't know what they were talking about.

The faculty interviews about their program's approach shed light on the observed differences in adoption of the Generative AI avatar sales training. Consistent with Innovation Diffusion Theory examples of centralized decision making, compatibility with current approaches, and reduced complexity through prior experience were observed among the programs that adopted the avatar training. In contrast, programs that had distributed decision making (by students), limited or no prior experience, and lacked resources (no time) lagged in adoption. It was also illuminating to explore the unique characteristics of the programs and how the programs had evolved in different environments. Informing Science Rugged Landscapes provides a powerful conceptual scheme to appreciate the differences in approach and optimized fitness of operations for the

collective system of collegiate sales programs.

Unaided all the faculty interviewed (N=9) noted “Adding Capacity / Save Time” as a key item of value from the Generative AI avatar sales training option. One third (3/9) of the faculty reported the training provided an easier way to practice and allowed time shift practice since only one person was required. One of the faculty also noted the Generative AI avatar sales training could provide diverse situations, visibility to problem areas, instant feedback, and be objective / remove bias in the role plays.

Recognizing the substantial industry sales experience of the faculty interviewed and their approximate role as sales managers we also asked the faculty for their insights into top applications for the new Generative AI avatar sales training capability. The question was asked of the eight faculty with direct industry sales experience. The top use cases suggested by faculty – average tenure in sales almost 20 years. All the interviewed faculty (N=8) noted onboarding as a top use case. Three of the eight faculty (3/8) identified skill development, and a quarter (2/8) highlighted skill refreshment. One of the faculty (1/8) suggested objection handling. Upon prompting there was also significant support for performance improvement and certification / product readiness applications.

Self Determination Theory, Innovation Diffusion Theory, and Rugged Landscapes from Informing Science are described to provide theoretical footings for exploring the data. Then, in the Applications of Theory section, prior research is shared to illustrate potential approaches to optimize value from deploying the Generative AI avatar sales training for both sales faculty and industry sales leaders.

The Theories

Self Determination Theory

Self Determination Theory (Ryan & Deci, 2000) describes a continuum of motivation spanning Amotivation, Extrinsic Motivation, and Intrinsic Motivation. Extrinsic Motivation is further subdivided ranging from external regulation (external) to integrated regulation (internal). Within the context of this research students were motivated by multiple forces including both extrinsic and intrinsic forces. First, the students themselves are strongly motivated in selecting a career selling and distinguishing themselves to be selected by faculty to represent their university and team. There were also strong external influences that included awards, recognition, and the potential for internships and full-time roles. It is particularly meaningful that despite these multiple elements of motivation almost 60% of the students who had access to the tool did not leverage the training. It seems there is more to adoption and use than simply motivation.

Innovation Diffusion Theory (IDT)

Rogers (2003, p. 221) explores how innovations are adopted within social systems. In this research, Generative AI avatar sales training represents an innovation, with sales students forming the social system. Rogers identifies five attributes that influence adoption—relative advantage, compatibility, complexity, trialability, and observability—accounting for 49% to 87% of adoption variance. Additionally, four other variables impact adoption: the type of innovation decision, communication channels, the nature of the social system, and the role of change agents.

In addition to the insightful and important understanding that innovations will be adopted over time and identifying leverage points to accelerate adoption, IDT also highlights the need for leaders to consider the perspective of the individual adopting the innovation. “Individual Blame Bias” is the idea that the leaders of a system (innovators) see that everyone will benefit from adopting the innovation. At the aggregate this may be true but for an individual the decision to adopt may present unwarranted risk. In the context of this research the school that was new to competition and had sufficient resources to provide in-person role play training may have benefited but the tool presented potential risk versus the known method of in-person role plays. Similarly, the established school with a large program differentiates its program based on other accolades. The competitors (salespeople) represent another group who must adopt the training and could have diverse goals and needs. Rogers provides an encompassing definition of Individual Blame Bias, “blaming people in difficult situations for their own predicament” (2003, p 122).

Applying Innovation Diffusion Theory (IDT) in this context offers insights into training adoption. Some schools had prior experience with Generative AI avatar sales training, while others did not. The absence of experience and limited ability to observe success hindered recognition of relative advantage and observability. Despite the absence of monetary cost, trialability remained constrained due to time limitations faced by students and faculty. Interviews revealed differences in adoption decisions, with some schools mandating faculty-led implementation while others allowed students to decide individually. IDT provides valuable perspectives on the adoption process and potential leverage points to accelerate uptake.

Rugged Landscapes – Informing Science

Gill in his book *Informing Business* (2010, pp. 56, 63) asserts that businesses and businesspeople operate at points of localized fitness that maximize some component of value. In sales, examples of points of

fitness could be defined by optimized time, revenue generation, or selling tactics. The point of fitness is a collection of methods, practices, and experience that sellers or sales leaders employ to maximize the resources for the outcome. Gill further explains that individuals and groups tend to stay at the point of fitness and not make incremental changes as any small change would degrade performance. Movement from a point of localized fitness leads first to a reduction in fitness and changing many attributes to move to a new peak could be perceived as high risk as the effort required and duration of lower performance are unknown. In the structure of this research the sales faculty and students have past experiences that were rewarded with successful results and established points of fitness about preparing for the sales competition.

Gill (2010, p. 56) asserts that businesses and business professionals operate within points of localized fitness—optimized positions that maximize specific aspects of value, such as time efficiency, revenue generation, or selling strategies. These points of fitness represent a collection of established methods, practices, and experiences used by sellers and sales leaders to achieve desired outcomes.

Gill (2010, p. 63) further explains that individuals and groups tend to remain within their established points of fitness, avoiding incremental changes that could initially decrease performance. Shifting from one fitness peak to another often leads to a temporary decline in effectiveness, and the uncertainty surrounding the required effort and duration of lower performance makes such transitions appear high-risk.

Within this research context, the sales faculty and students have developed successful strategies shaped by past experiences, reinforcing their existing points of fitness when preparing for sales competitions.

Applications of the Theory

Innovation Diffusion Theory explains that users will adopt an innovation at different times and perhaps more important provides a list of categories for sales leaders to consider when developing interventions in hopes of accelerating adoption. Parthasarathy & Sohi (1997) applied Rogers' work on innovation diffusion to adopting sales force automation in the late 1990s. The authors suggest sales force automation is a two-stage process with the first stage being sales organization adoption then only after the organization had adopted individuals follow a diffusion process in adopting the tool. In Figure 1 Parthasarathy & Sohi (1997) note multiple Organizational and Individual Factors that contribute to or hinder adoption. The lists can be viewed as more specific examples of Rogers' innovation diffusion constructs, (p. 198).

Informing Science's conceptual framework on points of fitness highlights that salespeople and sales teams operate at varying levels of optimization, with strong incentives to maintain existing methods and minimize the risks associated with change. Hammond (2018) builds on this idea in *"Avoiding the Carnage: A Guidebook to Sales Transformation"*, integrating Innovation Diffusion Theory with the concept of localized fitness. Hammond argues that sellers often need external pressure to move beyond their established point of fitness and that sales leaders can facilitate adoption by fostering a learning environment where the risks of change are reduced. Specifically, Hammond (2018, p. 63) argues sales leaders should.

1. Change compensation plans to move sellers from the initial point of fitness.
2. Reduce the depth and duration of ineffectiveness by bridging compensation.
3. Reduce time to reach new point of fitness by leveraging change agents and understanding the rugged (complex) landscape to deliver highly adaptable training.
4. Reduce uncertainty by leveraging IDT traits that accelerate innovation adoption (change agents, observability, trialability, and appropriate communication tools like mass market and personal preferences.)

Hammond (2018, pp. 58-60) further combines innovation diffusion with the concept of group selling behaviors by suggesting that sales training should be staggered to align with a group's dominant experience and likelihood of adopting new innovations. A valuable tool for structuring change is a matrix of intervention strategies, where different points of fitness form the rows and the five phases of innovation diffusion (innovators, early adopters, early majority, late majority, and laggards) constitute the columns.

In another example of "what was old is new again", theory provides important guidance on understanding the circumstances, drivers, and most importantly points of intervention related to adopting Generative AI avatar sales training. A discussion of the research follows in the next section of the paper.

Discussion

Two research paths were taken in this research project. Quantitative methods were employed to explore the relationships between the Generative AI avatar sales training data and the performance of students in a large intercollegiate sales competition. In the second research activity nine of the faculty that coached teams that competed in the competition were interviewed. The system of sales competition, sales faculty, and students provides generalizable findings for not only practice in sales training but more broadly skills development and skill reinforcement for knowledge workers in diverse industries.

Quantitative Discussion

Intercollegiate sales competitions provide a valuable training tool for students planning careers in sales and provide businesses with access to engage some of the most promising sales talent at the college level. The collegiate sales ecosystem is also an example of a sales organization. Students are commonly entering the sales workforce within a year and sales faculty often have substantial sales experience and act as sales managers in preparing students for competitions.

Students that compete in intercollegiate sales competitions are typically very motivated to prepare for the event because they are expecting to pursue a career in sales. They also tend to exhibit a desire to spend sufficient time preparing for the event which includes receiving coaching and ultimate judged on their performance. They demonstrate their eagerness to represent their school through their efforts, which is how faculty tend to select students to represent their university.

Students who participate in intercollegiate sales competitions are generally chosen by faculty to represent their university. These students are highly motivated, having chosen a career in sales and shown a strong willingness to be coached, to be evaluated, and to refine their sales skills through practice. The competition structure also provides strong extrinsic motivation through performance awards and the potential to secure internships or full-time positions with companies that participate as judges and buyers for the competition. Performance was assessed based on students' ranks in two rounds of role play competition. Round 2 of the competition was a Discovery Meeting and Round 3 was a Sales Close Meeting. There were 20 competition rooms with between 6 and 8 competitors per room. Competitors were divided into three groups based on the school's level of experience in intercollegiate sales competitions.

In this research no fee access to a Generative AI avatar sales training platform was provided to students who competed in the large intercollegiate sales competition, "Selling with the Bulls" (University of South Florida, n.d.-b). Student competitors and faculty were provided training on the tool and received reminders about the tool availability in the month prior to the competition. We were surprised to find nearly 60% of the students did not leverage the platform and average student use was roughly 41% of the available trials.

Statistical analyses indicated a difference in competition performance for students who used the platform and students who did not (T-Test $p=.048$). Further exploration with linear regression found a statistically significant relationship between school experience in intercollegiate competitions and the length of role-play training sessions (Duration * Flight 3

$p=.028$, Duration * Flight 2 $p=.072$). The coefficients for both the Flight 2 and Flight 3 interaction with Role-play Training Session Duration were both negative and the Flight 3 coefficient had a larger magnitude. Somewhat surprising at first consideration the result suggests students from schools with more experience benefited more from the training. In reflecting on the result, a probable explanation of this outcome is that the Generative AI avatar sales training requires a level of competency to gain benefit. The training could be interpreted as high stakes in that the competitors knew they were being recorded and scored. Also, unlike in-person role plays the avatar would not just "start over" and there was a limited number of role-play training sessions.

Qualitative Discussion

The second research path became critical when the training adoption metrics were reviewed. Despite seemingly strong intrinsic and extrinsic motivation elements usage roughly 40% of the invited competitors used the platform. Qualitative Data Analysis conducted with semi-structured questions provided substantial insights on how sales programs operate, their goals, and how they made decisions regarding adoption of the no fee Generative AI avatar sales training opportunity.

First, we have been deliberate in this paper to report the Generative AI avatar sales training offer as "no fee" rather than "free". This is an important distinction as monetary expenditure is only one of the "costs" associated in adopting the platform. There was time, resource, complexity, and potential relationship "costs" that factored into faculty decisions to adopt the offered training. The conceptual scheme Rugged Landscapes from Informing Science provides a valuable visual and lens for making sense of the nuances of the diverse sales programs and adoption choices. As Innovation Diffusion Theory predicts the adoption of the novel Generative AI avatar sales training method varied across the programs involved in the competition and among competitors as well. IDT provides a rich collection of leverage points that sales faculty and sales leaders could employ to accelerate adoption. Addressing the five key traits that represent between 49% and 87% of change in adoption (relative advantage, compatibility, trialability, observability, and complexity) along with how the decision is made to adopt (centralized, distributed) and the role of a change agent provides sales leaders be it faculty or practice with actionable steps to intervene to maximize the value of a training investment.

Generative AI avatar sales training presents exciting potential for the future with faculty identifying key value elements of the training approach and applications for practice. Faculty shared that "Adding Capacity / Save Time", "Providing an easier way to

practice and allowing time shift practice”, and “enabling diverse situations, visibility to problem areas, instant feedback, and being objective / remove bias in the role plays” as key topics of value. Faculty with industry sales experience also shared their thoughts on use cases for the training method noting, “onboarding” was referenced by all the interviewees followed by skill development, and skill refreshment. One of the faculty members referenced objection handling and when prompted there was support for performance improvement and certification / product readiness applications use cases.

Summary Discussion

The observed interaction effect between role-play training sessions duration and school experience has important sales-management implications for both researchers and practitioners. First, more research is needed to develop a better understanding of the mechanisms involved in school experience. Is it students from schools with more experience who practiced more, practiced more efficiently or perhaps had more confidence? Regardless of the mechanism, one implication of this finding is that sales leaders will do well to scale the scope of sales training to the readiness of the resources. The approach of providing differentiated training by creating a matrix of the state of the resource (salesperson) and the resource’s likelihood of adopting (phase of innovation diffusion) is a powerful approach to maximize the value of training (Hammond 2018, pp. 59-60).

A common use case described for the Generative AI avatar sales training is onboarding new salespeople. While this application may provide significant value to sales leaders (sales faculty or sales managers) in reducing time and improving access, the adoption process must also consider the willingness of the sales students or salespeople to adopt. Like sales force automation (SFA, CRM), much of the tool’s value accrues to sales leadership. Sales students and salespeople may feel the new tool erodes their independence and resist adoption (Barker et al., 2009). Innovation Diffusion Theory provides guidance on options to improve adoption by centralizing decision making, leveraging change agents, and optimizing the training method’s compatibility, trialability, observability, relative advantage, and complexity.

The Generative AI avatar sales training appears to deliver value for sales leaders and multiple near-term applications. The sales faculty noted onboarding, skills development, skills reinforcement, objection handling, and when prompted compliance, certifications, and performance improvement as applications in practice. The value of the training platform for faculty centered on improving capacity / reducing the time for role plays, providing flexibility in delivering the role plays with time and location shifts, enabling diverse situations, visibility to prob-

lem areas, instant feedback, and the delivery of a bias free consistent role play experience.

Conclusions

Despite students having exceptionally strong intrinsic and extrinsic motivation to excel and sales faculty being time-limited, just over 40% of the invited students leveraged a no fee Generative AI avatar training tool that was trained on the specific case for a large intercollegiate sales competition. Statistical analysis of training and competition results revealed a statistically significant difference in performance between students who used the training and students who did not. Predictive statistical analysis was employed to explore the impact of various training factors on competition performance. The analysis found a statistically significant relationship between the duration of role-play training sessions and the student school’s relative experience in intercollegiate sales competitions. Competitors from more experienced schools benefited more from the Generative AI avatar sales training than students from less experienced schools.

Semi-structured interviews with the sales faculty who act as de facto sales management indicated multiple reasons for both the adoption and non-adoption of the offered Generative AI avatar sales training method. Specifically, schools who did not leverage the training had one of the following characteristics: they had little or no prior experience, the decision to use the tool was left to students, or the faculty had sufficient resources and leveraged in-person role play training. Conversely, students who leveraged the tool were part of sales programs where the faculty mandated the students use the tool or had prior experience with similar tools.

Consistent with Innovation Diffusion Theory, the decision process (Organizational Factor) appears to be an important portion of the adoption process as some schools required use, and other schools left the choice to students. In a case of, “what was old is new again”, sales force automation adoption and other management led initiatives provide guidance for interventions to accelerate adoption.

Implications of the research are significant for working sales leaders, sales faculty, and, more broadly, individuals who seek to leverage similar training. First, while sales students and salespeople may derive satisfaction from improvement in training scores, individual user motivation is likely not sufficient to ensure adoption. Second, the Generative AI avatar sales training produces significant value to sales leadership in the form of decreased time conducting role plays, repeatable process, limited bias, and improved visibility of training results and use. Third, prior research provides multiple areas to consider in accelerating adoption by optimizing the decision process and individual adoption elements that en-

sure the sellers do not perceive a loss of performance as they adopt the new capability.

Excitement to leverage the Generative AI avatar sales training for on-boarding new sellers should be tempered by first assessing the sellers to ensure they are ready (knowledge, skills, confidence) to benefit from the tool. Basic selling and communication skills should be developed before leveraging a full interaction role play with a Generative AI avatar. It may be possible to construct reduced scope training with a Generative AI avatar on these more basic skills. Leveraging the tool in this manner was not assessed in this research.

For organizations selling similar products, the implications of this training tool are significant. The most direct and observable benefits primarily impact sales leadership, while individual sellers may struggle to recognize their value. Since sales success depends on multiple factors, sellers often rely on past behaviors that have already proven effective. As a result, organization deploying the training should prioritize applications that provide measurable value to decision-makers. Specific examples include skills development, skills reinforcement, diverse situations, objection handling, compliance, certification, and performance improvement. Selling organizations will provide a substantial service to their customers and salespeople who are asked to train by providing tempered guidance on deployment, applications, and expectations.

Although the primary value of the tool is ascribed to sales leadership, sellers may find value in the flexibility to role play without a partner whenever desired. It is also important to note that salespeople may also perceive the tool as an erosion of autonomy and resist its use. The perspectives of students (salespeople) is an important stream of future research.

While the domain of this research was sales the findings are potentially applicable to other scenarios that apply this type of training. Generalizing the research findings to other roles and industries is a potential avenue for future research.

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Review

This article was accepted under the **constructive peer review** option. For further details, see the descriptions at:

<http://mumabusinessreview.org/peer-review-options/>

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Appendix A: Tables

	Average Place in Room Round 2					Average Place in Room Round 3					Flight
	Not Avatar Trained	Not Avatar Trained (N)	Avatar Trained	Avatar Trained (N)	Avatar Lower Average Place	Avg Place Not Avatar Trained	Not Avatar Trained (N)	Avg Place Avatar Trained	Avatar Trained (N)	Avatar Lower Average Place	
Room 1	5.5	4	3.5	4	x	4.2	6	5.5	2		1
Room 2	5.5	4	3.5	4	x	3.5	4	5.5	4		1
Room 3	5.0	3	3.3	4	x	7.0	1	3.5	6		1
Room 4	4.2	5	3.5	2	x	4.0	5	4.0	2	x	1
Room 5	5.3	3	3.0	4	x	4.3	3	3.8	4	x	1
Room 6	4.0	3	4.0	4	Tie	3.5	4	3.5	2	Tie	1
Room 7	1.5	2	5.0	5		4.0	3	4.0	4	Tie	2
Room 8	3.3	3	5.2	5		4.2	5	3.5	2	x	2
Room 9	4.3	4	3.7	3	x	5.0	2	2.8	4	x	2
Room 10	5.8	5	2.3	3	x	4.3	4	2.0	2	x	2
Room 11					NA	4.6	5	4.3	3	x	2
Room 12	3.0	2	3.8	4		3.5	4	4.7	3		2
Room 13	4.8	4	3.0	3	x	3.7	3	4.3	4		2
Room 14	4.3	7	6.0	1		5.0	6	3.0	2	x	3
Room 15	4.0	4	5.0	4		3.6	5	6.0	3		3
Room 16	4.4	7	5.0	1		3.0	5	7.0	3		3
Room 17	4.2	5	5.0	3		5.4	5	3.0	3	x	3
Room 18	5.2	6	2.5	2	x	4.0	5	4.0	2	Tie	3
Room 19	5.0	4	2.7	3	x	5.0	5	1.5	2	x	3
Room 20	4.6	5	2.5	2	x					NA	3

Figure A1: Comparison of Average Position in Round 2 and Round 3

Variable		Place	Score	Trials	Duration MIN	Span HRS
1. Place	Pearson's r	—				
	p-value	—				
2. Score	Pearson's r	-0.137	—			
	p-value	0.144	—			
3. Trials	Pearson's r	0.071	0.206	—		
	p-value	0.452	0.026*	—		
4. Duration (MIN)	Pearson's r	-0.143	0.116	0.097	—	
	p-value	0.127	0.215	0.298	—	
5. Time Span HRS	Pearson's r	0.108	0.222	0.479	0.162	—
	p-value	0.251	0.017*	< .001*	0.082	—

Figure A2: Correlation Table of Variables

	Unstandardized	Standard Error	Standardized	t	p
(Intercept)	3.081	1.661		1.855	0.067
Score	-0.004	0.013	-0.04	-0.323	0.748
Trials	-0.275	0.32	-0.202	-0.859	0.393
Duration MIN	0.146	0.109	0.223	1.345	0.182
Span HRS	0.014	0.061	0.051	0.223	0.824
Flight (2nd)	4.8	4.112		1.167	0.246
Flight (3rd)	4.242	2.212		1.918	0.058
Score*Flight (2nd)	-0.039	0.05		-0.783	0.436
Score*Flight (3rd)	-0.002	0.034		-0.061	0.951
Trials*Flight (2nd)	0.496	0.385		1.288	0.201
Trials*Flight (3rd)	0.12	0.635		0.19	0.85
Duration MIN*Flight (2nd)	-0.322	0.177		-1.818	0.072
Duration MIN*Flight (3rd)	-0.418	0.187		-2.235	0.028
Span HRS*Flight (2nd)	0.057	0.072		0.797	0.427
Span HRS*Flight (3rd)	0.09	0.132		0.685	0.495

Figure A3: Exploratory Linear Regression Model

Appendix B: Semi-Structured Questions from Faculty Interviews

CONFIRM CONSENT

Do you have any questions about the study.

Do you concur you would like to participate in the study?

STUDY

Let's start with some background information.

Q1: Tell me about the characteristics of your university and college.

- Follow up for
- Location
- Size
- Demographics
- Age

Q2: Tell me about your experience as a teacher and what you did prior to teaching if applicable.

- Follow up for
- Self history
- Experience and tenure in sales or business / other jobs
- How many years teaching
- What taught. How many classes.

Q3: I'd also like to learn about your sales program curriculum. Please tell me about your sales curriculum.

- Follow up for
- Number of sales classes
- Types of sales classes
- Number of students total and per class on average
- How long the program has been in existence
- Sale major, minor, or certificate
- What is taught in the sales classes
- Number of classes that use sales role play for pedagogy
- Number of role plays per course

Q4: How important is the cost per student for your university. What programs are in place to manage or monitor student course fees.

Q5: Next let's explore what you do with sales education outside of the classroom. Tell me about your clubs, organizations, or other sales focused programs

Follow up for

- Sales Club, Organization, Pi Sigma Epsilon (PSE) or University Sales Center Alliance (USCA) membership
- How often club meets
- What is purpose of club
- How many members are there in the club
- Do you host a sales competition or sales events
- How many sales competitions / events
- How many students participate in events

Q6: How do you fund your sales program and what resources are available to support your program and what resources does your program pay for.

- Follow up for
- Faculty
- Coordinator
- Events
- Travel expenses
- Busy partners that assist with cost or no cost

Q7: Tell me about the structure and teaching of role plays for class role plays

- Follow up for
- Where case comes from
- How many practice sessions

- Who grades the assignments
- How do students get feedback
- Do students review feedback

Q8: Tell me about other sales role play assignment structures you've tried in the past

Q9: Now let's look at sales competitions you attend and how you prepare your students for sales events

- Follow up for
- Time
- Activities
- Who performs practice role plays
- If not interviewee who coordinates the role play
- Number of practice sessions
- On average how much time do you spend each semester practicing role plays with your students

Q10: What are the most challenging parts of your role as a sales educator

- Follow up for
- Time
- Money
- Resources
- Confirm if running clubs (service), training students for role play, grading role plays, time for preparing students are challenges
- Rank items from most important to least

Q11: What is your experience with using automated systems for practicing or grading sales role plays

Q12: How would a dynamic sales avatar trained on your case and grades the role play change your approach and effort for sales role plays in class and sales competitions

- Follow up for
- Time saved
- Resources saved
- Opportunity cost to other programs
- Attend more competitions
- Include more students

Q13: Why did you or didn't your team leverage the sales training avatar software?

Q14: What applications do you think the sales training software would have for companies?

Q15: Is there anything more you would like to share that we have not discussed?