Front Line Employees' Competencies
in the Era of "Phygitability"

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Summary:

While a large body of research is currently carried out on phygital retail, only a scant of studies have thoroughly regarded how it is changing the characteristics and the ergonomic of service encounters. This paper is grounded on previous qualitative research that examined the frontline employees' (FLEs') competencies perceived by consumers and the consumers' motivations to engage in a "*phygital encounter*" (i.e., an in-store service encounter combining the use of a digital device). The objective of this paper is to test their relations and fulfill the current lack of theoretical and practical knowledge on this topic. Through a semi-projective methodology allowing to obtain quantified data while using projective approaches, the findings highlight not only the importance of "task" and "interaction" competencies, well known in the literature but also a digital "adaptive" competency. This study contributes to the evolution of service and sales teams' competencies in the era of phygitability.

Introduction

Due to the omnipresence of digital tools in daily life, practices of interactions have rapidly developed (Kennedy and Wellman, 2007; Wellman and Rainie, 2013). The 2023 digital global overview report[1] indicates that the average mobile user spends more and more time online and especially on their mobile phone. Currently more than 5 hours per day that is roughly about 30 percent of the waking lives is spent using a digital device. Nonetheless, once COVID-19 restrictions eased, consumers have dashed back to physical stores, demonstrating that their shift to online purchasing was situational. However, when shoppers currently return to enjoy back physical shopping[2], their digital online habits remain. Their last shift to online retail and back to stores have created more hybrid shopping needs. Together with the integration of digital devices in physical stores, shoppers are now able to experience journeys of phygital shopping that integrates not only HIS (human interaction service - Makarem et al., 2009) and SST (Self-service technology - Oliver et al., 2009), but also "phygital service encounters" (Roten and Vanheems, 2023a). These interactions embed the use of a digital tool during face-to-face service interactions (see pictures in appendix 1) while frontline employees (FLEs) serve *"as a bridge between the consumer and new technology"* (Cervantes and Franco, 2020, p. 370). FLE's have always been considered as the main driving force behind retailers' development and turnover (Rafaeli et al., 2017). However, only a scant of research have attempted to understand how the phygital era is transforming their role and competences (Vanheems et al., 2013; Roten and Vanheems, 2017d, 2023a). Therefore, research on the competencies required from FLEs in a world in which the physical and digital channels are more increasingly interweaving are crucial today to overcome the theoretical and practical gap in this field. Therefrom, the objective of this study aims at understanding what are the phygital competencies required from FLEs and at testing their relations with the consumers' motivation for a phygital encounter in stores. This paper is structured as follows. First, the literature review analyses research on the required skills of salespeople's while highlighting their first prime focus in B2B settings and progressive evolution to B2C and retail industry specificity. After discussing how the omnichannel and phygital era have changed FLEs' traditional role (Vanheems et al., 2013), hypotheses are drawn up. Next, the methodology part presents a semi-projective methodological procedure, aggregating projective techniques with quantified structured data. In the last part, the quantitative results and their contributions to theory and practice are discussed to conclude with limitations and new avenues of research.

Literature review

Early research on sales skills have attempted to identify the various selling styles of salespeople (e.g., Churchill et al., 1985). One of the first classifications of salespeople's communication styles have been published by Sheth (1976) and used as an accepted framework by numerous scholars (e.g., Williams and Spiro, 1985). It proposes three dimensions: "task-oriented", (i.e., focusing on solving the customer's problem), "social-oriented" (i.e., focusing on the interaction with the customer) and "self-oriented" (i.e., emphasising an egocentric selling style, focusing on oneself and own sales objectives).

Personal selling skills: when knowledge, communication and adaptability competencies meet. Research on "personal selling" have first adopted a general perspective without pointing the specificity of different contexts. They emphasised the impact of knowledge and expertise (Leong et al., 1989; Weitz et al.,1986), the effect of interpersonal communication style on sales performance (Macintosh et al.1992; Castleberry and Shepherd, 1993; Comer and Drollinger,

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1999) and the ability of salespeople to recognise and adapt to customers' communication style (Spiro and Weitz, 1990). In fact, Ford et al.'s (1987) meta-analysis on skill requirements specifically suggests three distinct dimensions (p.13): "1. Interpersonal skills such as the ability to manage and resolve conflict, 2. Salesmanship skills such as making a presentation and closing a sale, and 3. Technical skills such as knowledge of product features and benefits, engineering skills and procedures required by company policies. Fifteen years later, Rentz et al (2002) enlarge these dimensions and validate a sales skills scale as a holistic construct. His first dimension incorporates a wide range of interpersonal skills items used in previous research and related to verbal and non-verbal expressive quality. The next dimension measures knowledge in a large range of topics like *"knowledge of customers' markets and products; knowledge of one's own company's procedures; knowledge of competitors' products, services and sales policies; knowledge of the product range; knowledge of customers' operations; and imagination in providing products and services that meet customers' needs"* (Rentz et al., 2002, p.15). Finally, the third dimension reflects salesmanship skills coined also as 'adaptive selling' (Porter and Inks, 2000). However, while knowledge, interpersonal and adaptability competencies were stressed in most early research on sales interactions and salespeople's skills, it didn't consider specific settings as B2C (e.g., Rentz et al., 2002).

Sales competencies in B2C : when task and interaction competencies meet.
From the second half of the 90's, the sales literature begins also to focus on FLEs' competences (Bettencourt and Gwinner, 1996). As they are "*personally interacting with customers in retail and service encounters*" (Sirianni et al., 2009, p. 966), they face a large volume of customers, requiring therefore more "people skills" and less "negotiations skills". Furthermore, complex customization that may be frequent in B2B is often minimized in B2B retail. So, it usually requires a larger vision and less technical procedure. These reasons explain why research on FLEs' skills choose to focus on "*two broad categories of competences: task and interaction*", while "*task competence refers to the employees' knowledge of the product and of the selling task, and interaction competence concerns employees' communication abilities, friendliness and kindness.* (Lucia-Palacios et al., 2020, p.2). In fact, studies about service encounters and FLEs' competencies are today still using scales embedding mainly those 2 main dimensions of interpersonal and professional competencies (Wu et al., 2015).

Sales competences in a phygital world: when physical and digital competencies meet.
In the last decade, the retail world has evolved very rapidly. More and more digital devices surged into physical commercial spaces (Mele et al., 2023) either for better answering customers' practical needs or fulfilling their social hedonic yearning (Banik and Gao, 2023). Therefrom, physical retail spaces today often embed various digital devices (i.e., phygital stores). As the result of this store digitalization, the FLE's role had to evolve (Vanheems et al., 2013). However, up to date very few research have examined how this trend has impacted FLEs' required competences (Roten and Vanheems, 2017d). Beside a study in the field of Open Innovation Technology proposing a system of end-to-end marketing analytics to "*examine the peculiarities of interaction between consumers and sellers in the framework of their interaction in the phygital environment*" (Mikheev et al., 2021, p.114), Roten's (2019a) qualitative study among French consumers has identified the consumers' expectations of FLEs' during a phygital encounter (i.e., by sharing a digital device with a FLE) and how it is impacting their motivation to such an encounter (Roten et al., 2022). The findings of this study highlighted three principal assessments of FLEs' phygital competency related to "task" (functional and technical knowledge), "interaction" (relational and communication skills) and "digital" (web-based expertise and dexterity). They also outlined three main motivational dimensions of phygital service encounters: task-oriented (utilitarian), activity-oriented (social) and control-oriented (individual) that are impacted by the perception of FLEs' phygital competencies (see

Appendix 2). Following the literature theoretical gap regarding FLE's competencies in the era of "phygitability" l the objective of this study aims at understanding how FLE's phygital competencies may motivate consumers to engage with them in a phygital service encounter. Due to the length limitation, only the following 3 main hypotheses are presented in this communication (see table1 below)., only the hypotheses.

Table 1: Hypotheses

H1. The perceived functional-technical (task) competency of the FLE has a positive effect on the consumer motivation to engage in a phygital encounter.
H2. The perceived relational-interpersonal (interaction) competency of the FLE has a positive effect on the consumer motivation to engage in a phygital encounter.
H3. The perceived digital competency of the FLE has a positive effect on the consumer motivation to engage in a phygital encounter.

Methodology

Due to the difficulty to describe and understand various interactional behaviours around the screen, visual projective techniques were interwoven in the design of this study. A hybrid (projective-declarative/ verbal-visual) method inspired from the Multi-Motives-Grid scheme (Sokolowski et al., 2000) was selected. Its objective is to facilitate the acceptance and understanding of the survey by the respondents by combining visual and verbal inputs in a ludic and fluid way (i.e., cartoon drawings and bubble sentence completion - see in appendix 1). This methodological approach, reconciling projective design (i.e., involving "third person technique" to limit possible social desirability bias) and quantified structured data (i.e., with predefined verbatim to rate), is defined as *'semi-projective'* by motivational psychology scholars (Schmalt,1999; Sokolowski et al., 2000). Holbrook and Hirschman (1982) describe it as "*structured projective techniques that employ quantifiable questionnaire items applicable to samples large enough to permit statistical hypothesis testing*" (p.136). They explain that deeper, implicit, inhibited and subconscious dimensions "*just below the threshold of consciousness*" (p.136), rather than only explicit ones, are covered by a single instrument. For the data collection, the "Prolific" crowdsourcing research-oriented platform associated with the University of Oxford was selected (Peer et al., 2017). A two stages procedure (pretest and test) was performed while they samples include respectively 95 and 499 valid answers[3]. Moreover, to prevent inattention bias due to the "*lack of control over the environment*" (Palan and Schitter, 2018, p.2), some attention-check questions (Peer et al., 2017) were deployed along the questionnaire to test simultaneous multitasking and potential limited attention (Chandler et al., 2014). Due to the paper length limitation, the scales' operationalization process of the constructs will be displayed during the communication[4].

Results and discussion

A hierarchical multiple regression procedure of variables' entrance in each block with stepwise method was used to test the impact of the FLE competencies assessment on the customer's motivation to a phygital interaction. The model confirmed the significative effect of the FLE's relative technical competency and the relational competency. However, neither the asymmetric (in favor of the FLE or of the customer) or symmetric digital competencies showed a significative relation. Therefore, we introduced an additional variable representing the stable

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[3] The final sample distribution from the population of the platform including 23,856 eligible participants, is composed of 67% female and 33% male. Their average age is 35.67. 77.2% currently reside in the UK and 22.8% in the US. 51.8% are married or partnered and 40.4% single. Only 17.6% are leaving alone.
[4] According to the qualitative study (Roten and Vanheems, 2017b), consumers have more difficulties to assess relative digital competency. Therfore, its scale was transformed in a categorical scale (symmetric, asymmetric in favor of the FLE/the customer, no assessment).

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motivational disposition of individuals in shopping and purchase situations that appears to have a significant effect on the consumer's motivation for a phygital interaction (Cervellon et al., 2015). When a consumer has a higher shopping motivational disposition, he might be more motivated by a phygital encounter (Roten and Vanhems, 2017c). As a result, the interaction of the FLE's similar digital competencies assessment with the consumer's shopping orientation emerged as having a significant positive impact on the motivation to a phygital interaction. The final model arose with an explained variance $R2$ of 0.221 and an adjusted explained variance of 0.2213 with F (5,483) =27.920. Besides the shopping orientation variable (β =.343, t = 87.612, p <.001), the FLE's relative technical competency (β = .100, t = 2.999, p =.022), the relational competency (β = .136, t = 2.977, p =.003) and the interaction terms of a similar digital competency assessment with the consumer's shopping orientation (β = .111, t = 2.527, p =.012), emerged with a significant positive impact. These figures and relations are summarised in Appendix 3. Hypotheses H1 and H2 about the effect of the perceived functional-technical and relational competencies of the FLE were validated. On the other hand, the fact that hypothesis H3 on the direct positive effect of the FLE's relative digital competency was rejected, stresses the fact that a consumer don't especially expect a higher digital competency from the FLE. While the link between the consumer's shopping motivation either for functional knowledge, social-link or control over the shopping process might seem more obvious (Mimoun et al., 2022), the more interesting result of this study remains the moderation effect of a symmetric digital level on the consumer motivation to engage in a phygital encounter.

Implications for theory and practice

In line with the literature on sales competencies (Lucia-Palacios et al., 2020), this study confirms the importance of FLEs' "task and interaction competencies" (Wu et al., 2015) also in a phygital encounters setting. Nonetheless, the significative moderating relation of a symmetric level of digital competency can be understood by the willingness of motivated consumers to discover better ways of finding relevant information and learn new insights when browsing with the FLE. As a higher FLE's relative digital expertise may hinder their understanding of the process at the shared device, a similar digital competency seems like a logical start point. Moreover, similar levels of digital competency during a phygital encounter may create common ground (Clark & Brennan, 1991), allowing shared understanding, social-link value and even affinity in line with Human Computer Interaction research findings (Oren and Gilbert, 2011). Additionally, a perceived similar digital competency may also endow the consumer with a deeper feeling of control, strengthening his awareness that he could follow the process on the screen, and even suggest some propositions (Wathieu et al.,2002). As a result of newly acquired digital knowledge and the ability to reproduce autonomously some part of the digital process consumers experiment with FLEs, they perceive an higher level of empowerment (Bachouche and Sabri, 2019). In fact, those findings are related to the anticipated values of collaboration at a screen, while two partners with similar digital level can work together and yield potentially better practical results. Research in Computer Supported Collaborative Learning (CSCL) state that shared digital environment might contribute to the creation of "*a shared referent between the social partners*" (Dillenbourg et al., 1996 p.15). The shared device functions as a mediational resource (Roschelle and Teasley, 1995), an artefact enabling the FLE's "task" and "interaction" competencies in line with the tradition of the Activity Theory (Karanasios et al., 2021). Yet, FLEs need to develop "digital adaptabilities" to diagnose and adapt one's own digital skills, similarly to the 'adaptive selling' approach (Porter and Inks, 2000). In practice, brands and retailers need to be aware that FLE's competencies are still and even more critical in the digital era of phygitability. As relational competency appears as the variable having the most important effect on the consumer's motivation to a phygital interaction, retailers need to train their sales teams and instruct them about the distinct

communication "interaction" skills required when interacting around a screen. In fact, moving from a face-to-face posture to a side-by-side one changes the social rules of interactions (physical distance, non-verbal cues, etc.) and might seem a challenging task. Little gestures like turning the digital device to the customer in his presence, checking that he is socially comfortable to watchat it and read the content, looking at him when speaking (and not to the screen), etc., can make a huge difference in the customers' perception of the FLEs' relational competency and increase the perceived value of phygital encounters. About the functional technical "task" competencies, FLEs will need awareness of the visual dimension of phygital encounters. They should care about the consumer's visual convenience; for instance, by proposing different font sizes and adopt a slower or faster browsing rhythm with less or more verbal explanations about the sites and information, according to the assessed digital competency of their customers. Finally, FLEs should also learn how to inquire and discern the consumer's level of digital competency. One proposal to achieve this evaluation could be to first propose the lead and the control of the shared device to the consumer. So, the FLE could observe and assess his level of digital competency and adapt. Subsequently, phygital service encounters will require from FLEs a range of new competencies based on "social, physical and digital adaptability" and that we coin as "phygitability".

Conclusion

These last years, the accelerated stores digitalisation together with the trend of consumers' omni-channel shopping journeys mixing successively or simultaneously physical and virtual channels (Collin-Lachaud and Vanheems, 2016) have led to "phygital service encounters" that occurs around a shared digital device. Based on previous qualitative research (Roten and Vanheems, 2017c,d, Roten, 2019a), this study aimed to test whether FLEs required phygital competencies are related to the consumers' motivation to engage in a phygital encounter. The literature review on sales competencies, highlighted three main qualities (i.e., task, interaction and adaptability). After collecting data through a semi-projective quantitative approach, the findings have stressed the impact of the relational competency and its new challenges (i.e., side-by side posture) relatively to classical face-to-face encounters. Similarly, the level of the consumer's shopping motivation appears to have a strong impact on their motivation for a phygital interaction, though this relation is positively moderated by the perception of a similar level of digital competency generating a feeling of "common ground" and affinity (Oren and Gilbert, 2011; Vanheems et al., 2013). Common ground theory (Clark & Brennan, 1991) states that "mutual knowledge, beliefs and assumptions" improve interpersonal communication and strengthen successful collaboration. Therefore, developing the relational competencies of the FLEs when they i simultaneously interact at the device and with the customer stands as a requisite step. Both symbolic social "interaction" and technical "task" acts performed by the FLE, as showing the customer that the screen sharing interaction is intended and important or checking and adapting its visual convenience for the customer during the encounter, could be one of the first implication and recommendation to promote the values underlying phygital service encounters. In this new era of "phygitability", these adaptive selling practices together with the ability to adapt ones-own digital competency could endow the consumer with feelings of increased control and empowerment during the service encounter (Wathieu et al.,2002). This paper has some limitations as it is constrained only to FLEs' competencies and didn't verify the impact of socio-demographics variables and numerous additional variables that can be involved in mediational interaction models (i.e., Person. Object. Situation - Punj and Stewart, 1983; Activity theory, Kaptelinin and Nardi, 1997). Finally, further avenue of research could check the impact of the different competencies on each motivational dimensions of phygital encounters (task, activity or control-oriented) as well as the impact of the digital tools' characteristics (Authors, 2019b).

Bibliography

Bachouche, H., & Sabri, O. (2019). Empowerment in marketing: synthesis, critical review, and agenda for future research. *AMS Review*, *9*(3-4), 304-323.

Banik, S., & Gao, Y. (2023). Exploring the hedonic factors affecting customer experiences in phygital retailing. *Journal of Retailing and Consumer Services*, *70*, 103147.

Bettencourt, L. A., & Gwinner, K. (1996). Customization of the service experience: the role of the frontline employee. *International journal of service industry management*, *7*(2), 3-20.

Castleberry, S. B., & Shepherd, C. D. (1993). Effective interpersonal listening and personal selling. *Journal of Personal Selling & Sales Management*, *13*(1), 35-49.

Cervantes, A. V., & Franco, A. (2020). Retailing technology: do consumers care?. *Spanish Journal of Marketing-ESIC*, *24*(3), 355-375.

Cervellon, M. C., Sylvie, J., & Ngobo, P. V. (2015). Shopping orientations as antecedents to channel choice in the French grocery multichannel landscape. *Journal of Retailing and Consumer Services*, *27*, 31-51.

Churchill Jr, G. A., Ford, N. M., Hartley, S. W., & Walker Jr, O. C. (1985). The determinants of salesperson performance: A meta-analysis. *Journal of marketing research*, *22*(2), 103-118.

Clark, H. H., & Brennan, S. E. (1991). Grounding in communication. In L. B. Resnick, J. M. Levine, & S. D. Teasley (Eds.), *Perspectives on socially shared cognition* (pp. 127–149). American Psychological Association.

Collin-Lachaud, I., & Vanheems, R. (2016). Navigating between real and virtual spaces: An exploration of the hybrid shopping experience. *Recherche et applications en marketing (English edition)*, *31*(2), 40-58.

Comer, L. B., & Drollinger, T. (1999). Active empathetic listening and selling success: A conceptual framework. *Journal of Personal Selling & Sales Management*, *19*(1), 15-29.

Chandler, J., Mueller, P., & Paolacci, G. (2014). Nonnaïveté among Amazon Mechanical Turk workers: Consequences and solutions for behavioral researchers. *Behavior research methods*, *46*, 112-130.

Churchill Jr, G. A., Ford, N. M., Hartley, S. W., & Walker Jr, O. C. (1985). The determinants of salesperson performance: A meta-analysis. *Journal of marketing research*, *22*(2), 103-118.

Dillenbourg, P., Baker, M., Blaye, A. & O'Malley, C. (1996). The evolution of research on collaborative learning. In E. Spada & P. Reiman (Eds) *Learning in Humans and Machine: Towards an interdisciplinary learning science*. (Pp. 189-211). Oxford: Elsevier.

Ford, N. M., Walker Jr, O. C., Churchill Jr, G. A., & Hartley, S. W. (1987). Selecting successful salespeople: A meta-analysis of biographical and psychological selection criteria. *Review of marketing*, *10*, 90-131.

Hirschman, E. C., & Holbrook, M. B. (1982). Hedonic consumption: emerging concepts, methods and propositions. *Journal of marketing*, *46*(3), 92-101.

Kaptelinin, V., & Nardi, B. A. (1997, March). Activity theory: basic concepts and applications. In *CHI'97 Extended Abstracts on Human Factors in Computing Systems* (pp. 158-159). ACM.

Karanasios, S., Nardi, B., Spinuzzi, C., & Malaurent, J. (2021). Moving forward with activity theory in a digital world. *Mind, Culture, and Activity*, *28*(3), 234-253.

Kennedy, T. L., & Wellman, B. (2007). The networked household. *Information, Communication & Society*, *10*(5), 645-670.

Leong, S. M., Busch, P. S., & John, D. R. (1989). Knowledge bases and salesperson effectiveness: A script-theoretic analysis. *Journal of Marketing Research*, *26*(2), 164-178.

Lucia-Palacios, L., Perez-Lopez, R., & Polo-Redondo, Y. (2020). How situational circumstances modify the effects of frontline employees' competences on customer satisfaction with the store. *Journal of Retailing and Consumer Services*, *52*, 101905.

Macintosh, G., Anglin, K. A., Szymanski, D. M., & Gentry, J. W. (1992). Relationship development in selling: a cognitive analysis. *Journal of Personal Selling & Sales Management*, *12*(4), 23-34.

McClelland, D. C. (1985). Human motivation. *Glenview*, IL: Scott, Foresman.

Makarem, S. C., Mudambi, S. M., & Podoshen, J. S. (2009). Satisfaction in technology-enabled service encounters. *Journal of Services Marketing*, *23*(3), 134-144.

Mikheev, A. A., Krasnov, A., Griffith, R., & Draganov, M. (2021). The interaction model within phygital environment as an implementation of the open innovation concept. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(2), 114.

Mele, C., Spena, T. R., Marzullo, M., & Di Bernardo, I. (2023). The phygital transformation: a systematic review and a research agenda. *Italian Journal of Marketing*, 1-27.

Mimoun, M. S. B., Miltgen, C. L., & Slama, B. (2022). Is the shopper always the king/queen? Study of omnichannel retail technology use and shopping orientations. *Journal of Retailing and Consumer Services*, *65*, 102844.

Oliver, D., Livermore, C. R., & Farag, N. A. (2009). An explanatory model of self-service on the internet. *Self-service in the internet age: Expectations and experiences*, 257-274.

Oren, M. A., & Gilbert, S. B. (2011). Framework for measuring social affinity for CSCW software. In *CHI'11 Extended Abstracts on Human Factors in Computing Systems* (pp. 1387-1392).

Palan, S., & Schitter, C. (2018). Prolific. ac—A subject pool for online experiments. *Journal of Behavioral and Experimental Finance*, *17*, 22-27.

Peer, E., Brandimarte, L., Samat, S., & Acquisti, A. (2017). Beyond the Turk: Alternative platforms for crowdsourcing behavioral research. *Journal of experimental social psychology*, *70*, 153-163.

Perotti, V. S., & DeWine, S. (1987). Competence in communication: An examination of three instruments. *Management Communication Quarterly*, *1*(2), 272-287.

Porter, S. S., & Inks, L. W. (2000). Cognitive complexity and salesperson adaptability: An exploratory investigation. *Journal of Personal Selling & Sales Management*, *20*(1), 15-21.

Punj, G. N., & Stewart, D. W. (1983). An interaction framework of consumer decision making. *Journal of Consumer Research*, *10*(2), 181-196.

Rafaeli, A., Altman, D., Gremler, D. D., Huang, M. H., Grewal, D., Iyer, B., ... & de Ruyter, K. (2017). The future of frontline research: Invited commentaries. *Journal of Service Research*, *20*(1), 91-99.

Rentz, J. O., Shepherd, C. D., Tashchian, A., Dabholkar, P. A., & Ladd, R. T. (2002). A measure of selling skill: Scale development and validation. *Journal of personal selling & sales management*, *22*(1), 13-21.

Roschelle, J., & Teasley, S. D. (1995). The construction of shared knowledge in collaborative problem solving. In *Computer supported collaborative learning* (pp. 69-97). Springer Berlin Heidelberg.

Roten, Y.S.**,** & Vanheems, R., (2017c), 'Screen sharing in a shopping process: Motivational disposition and perceived context incentives', *Academy of Marketing Science (AMS) annual congress*, Christchurch, New Zealand, June 27 - July 1.

Roten, Y.S., & Vanheems, R. (2017d), 'To share or not to share a screen: a question of perceived competence?', *Etienne Thil - 20th International Retailing Conference*, Roubaix, France, October 12-13.

Roten, Y.S., (2019a), 'Understanding the motivations and mechanisms of screen-sharing: an application to customers-shop assistants' interactions', *thèse de doctorat en management*, Université Paris 1 Panthéon Sorbonne, Paris, France.

Roten, Y. S., & Vanheems, R. (2019b). Which screens to share in stores with which customers?. *Journal of Marketing Trends (1961-7798)*, *5*(3).

Roten, Y. S., Vanheems, R., & Laroutis, D. (2022). Les interactions «phygitales» de service en magasin: Quelles utilités pour les consommateurs?. *Recherches en Sciences de Gestion*, (3), 113-139.

Roten, Y. S., & Vanheems, R. (2023a). To share or not to share screens with customers? Lessons from learning theories. *Journal of Services Marketing*, *37*(1), 65-77.

Roten, Y.S., &Vanheems, R. & Laroutis, D. (2023b), De l'autonomie à l'accompagnement : la place du social dans les magasins phygitaux ', *39ème Congrès International de l'AFM*, Vannes, France, May 10-12.

Schmalt, H. D. (1999). Assessing the achievement motive using the grid technique. *Journal of Research in Personality*, *33*(2), 109-130.

Sheth, Jagdish M. (1976), "Buyer-Seller Interaction: A Conceptual Framework," *Proceedings of the Association for Consumer Research*. Cincinnati, O H: Association for Consumer Research, 382-6.

Sirianni, N. J., Castro-Nelson, I., Morales, A. C., & Fitzsimons, G. J. (2009). The influence of service employee characteristics on customer choice and post-choice satisfaction. *ACR North American Advances*.

Sokolowski, K., Schmalt, H. D., Langens, T. A., & Puca, R. M. (2000). Assessing achievement, affiliation, and power motives all at once: The Multi-Motive Grid (MMG). *Journal of personality assessment*, *74*(1), 126-145.

Spiro, R. L., & Weitz, B. A. (1990). Adaptive selling: Conceptualization, measurement, and nomological validity. *Journal of marketing Research*, *27*(1), 61-69.

Vanheems, R., Kelly, J. S., & Stevenson, K. (2013). The Internet, the Modern Death of a Salesman: Multichannel Retailing's Impact on the Salesperson's Role. *International Journal of Integrated Marketing Communications*, *5*(2).

Wathieu, L., Brenner, L., Carmon, Z., Chattopadhyay, A., Wertenbroch, K., Drolet, A., ... & Wu, G. (2002). Consumer control and empowerment: a primer. *Marketing Letters*, *13*, 297-305.

Weitz, B. A., Sujan, H., & Sujan, M. (1986). Knowledge, motivation, and adaptive behavior: A framework for improving selling effectiveness. *Journal of marketing*, *50*(4), 174-191.

Wellman, B., & Rainie, L. (2013). If Romeo and Juliet had mobile phones. *Mobile Media & Communication*, *1*(1), 166-171.

Wu, Y. C., Tsai, C. S., Hsiung, H. W., & Chen, K. Y. (2015). Linkage between frontline employee service competence scale and customer perceptions of service quality. *Journal of Services Marketing*, *29*(3), 224-234.

Williams, K. C., & Spiro, R. L. (1985). Communication style in the salesperson-customer dyad. *Journal of marketing Research*, *22*(4), 434-442.

Appendix 1: <u>Pictures of PSI practice</u>

Appendix 2: <u>Phygital motivations</u>

The three uncovered phygital motivations can be rooted in McClelland's (1988) *"Three Big Needs"* theory, claiming that every human behavior may be addressed within three basic needs described as "*achievement, affiliation and power*".

1. *The task-oriented (utilitarian) motivation* stands as a mean for being more efficacious and efficient. The possibility to get an "expert" opinion and see functional information at the same time is viewed as a "double checked procedure" that promote performance and success in the purchase choice and process. This motivation type appears as characterized by a dominant transactional shopping orientation (Roten et al., 2022).

2. *The activity-oriented (social) motivation* stands as a mean to reinforce social bonding. Discussions at the screen, while sharing the same physical artefact strengthen common values. This motivation type is characterized by a dominant relational shopping orientation (Roten et al., 2023b).

3. *The control-oriented (individual) motivation* stands as a mean to control any potential influence. It expresses a reaction to a potential fear of losing control of the process. This behavior is characterized by a dominant reactance orientation, motivating consumers to try following and supervising the activity on the screen (Roten, 2019a).

Appendix 3: The significant effects of the FLE's competencies on the consumer's motivation to engage in a phygital interaction.
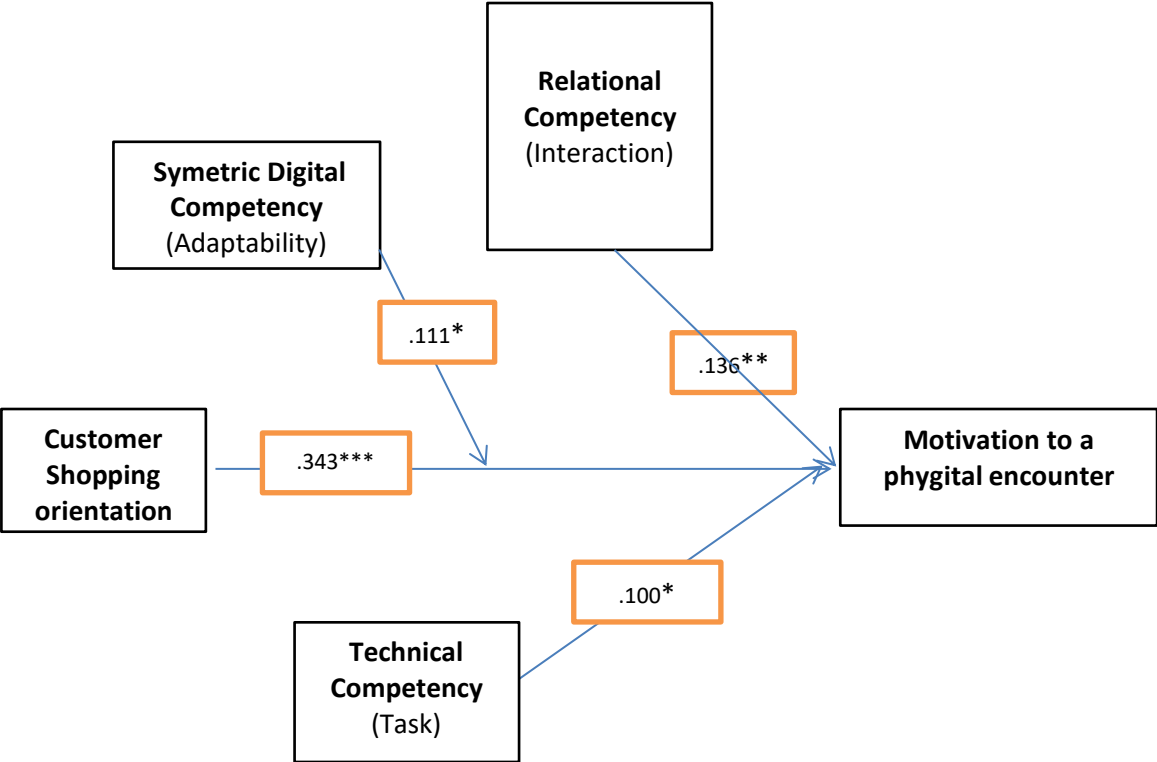
1. The regression statistics of the (significant) competencies on the consumer's for a phygital interaction

Phygital Interaction motivations	General B/Beta
Constant	1.464 (.216)
Shopping Orientation	.376/.343*** (.049)
FLE's Relational Competency (Interaction)	.114/.136** (.038)
FLE's Technical competency (Task)	.070/.100* (.033)
FLE's Symetric Digital Competency (Adaptability)	Moderator .159/111* (.063)
FLE's Higher Digital Competency	
Shop assistant Lower Digital Competency	
R2	.239
Adjusted R2	.221

Notes: *** p< 0.001 ** p<0.01 * p<0.05, *, **, *** indicates significance at the 90%, 95%, and 99% level, respectively - Standard errors are reported in parentheses- N=500.