

教育教学类论文、论著 佐证材料

目 录

一、论文	1
1. 《“五化一体” 评价教学创新实践》，赢未来，2023. 06	1
2. 《现代职业教育推进技能型社会建设的技术逻辑与行动策略》， 河南经济报，2024. 05	7
3. 《高职院校会计专业审计教学改革策略探究》，教育研 究，2023. 03	10
4. 《高职院校会计课程教学改革的实践与思考》，教育教学研 究，2022. 05	14
5. 《电子商务专业的学科知识体系研究》，移动信息，2023. 06	19
6. 《高校电商教学改革对学生创新创业能力的影响研究》，福建 轻纺，2024. 02	24
7. 《基于真实工作过程的跨境电子商务课程改革研究》，中国教 育技术装备，2021. 11	30
8. 《Analysis of factors influencing family farms' adoption of green prevention and control techniques on an integrative framework of the TPB and NAM 》，Acta	

Psychologica , SSCI 收录, 2024. 05	34
9. 《The visual naturalness effect: Impact of natural logos on brandpersonality perception》, International Journal of Consumer Studies, SSCI 收录, 2023. 02	47
10. 《Economic Globalization and Corporate Accounting Risks: An Analysis of Enterprise Risk Management Based on Big Data》, Security and Communication Networks, SCI 收录, 2023. 02	60
二、论著	64
1. 《新时代高校大学生劳动教育研究》, 湘潭大学出版社, 2023. 07	64
2. 《品牌标识设计与品牌个性匹配对品牌资产的影响》, 武汉大学出版社, 2024. 04	68

一、论文

1. 《“五化一体”评价教学创新实践》，赢未来，2023.06



校企合作模式下民族地区高职特色产业学院建设研究与实践	卢绍迎 64
基于成果导向的高职创新创业课程教学改革探究	任水平 67
师范专业认证背景下“学前教育研究方法”课程教学改革探究	何晓慧 71
课程思政视域下高职英语建设路径探析	周丽莉 74
中华优秀传统文化融入高职教育现状及对策研究	胡春健 77
产教融合视角下的高职院校校企合作探析与教学标准建设	谢喜峰, 陈斌 80

■ 人才培养

创新创业大赛对大学生思想政治教育的影响力因子研究	赵曦 84
“1+X”证书背景下中高本一体化技术人才培养路径	胡浪涛, 任莉萍, 孔庆新 88

“三全育人”引领下的思政实践教育体系探索

——以口腔医学技术现代学徒制为例……张弦, 刘勤 91

高校突发性事件网络舆情的影响因素及应对策略	颜树铭 94
-----------------------	--------

■ 课程教学

“五化一体”评价教学创新实践	姬海莉 97
----------------	--------

智媒时代新闻实务类课程教学改革研究	——以“新闻采访与写作”课程为例……罗星迪 101
学历继续教育专业课程践行“课程思政”的路径研究	刘明明 105
POA理论和O2O模式的融合在汉语国际教学中的应用研究	叶恩贤 109
高等职业院校婴幼儿托育服务与管理专业的“教师、教材、教法”改革策略分析	李永静 113
思政元素融入“基因工程实验”课程教学的实践探索	常清乐, 杨阳, 朱峰, 曹辉, 王德亚 116
“金课”建设背景下微观经济学课程思政教学探讨	李国英 119

■ 思想教育

伟大建党精神融入高校辅导员就业育人价值及路径研究	滕美娜, 李华桦, 张彩霞 122
新文科视角下品牌形象设计课程思政教学改革	陈怡静, 李帆, 杨兴 126
网络思政视域下“中国梦”在高校思政课堂的钩沉	张新宇 130

“五化一体”评价教学创新实践

姬海莉

河南工业职业技术学院，河南南阳 473000

摘要：对于高职院校学生来说，教学评价模式的创新需要与现阶段教学实践创新的发展同步推进。在“五化一体”评价模式下，更需要以教师与学生评价工作创新优化为契机，实现职业教育评价机制的改革与完善。高职院校应大力推动教育工作的开展，以教育创新印证教育评价模式创新的效果。通过本文分析可知，在五化一体评价模式下，高职院校学生评价工作的改革要点在于借助理论支撑，构建“五化一体”评价机制，融入专业文化；积极引入发展性评价，融入互联网文化；优化评价工作方法，立足职业特征；从而开展导向性评价。只有结合“五化一体”教学创新要求，同步构建具有创新性的教学评价模式，才能提升学生评价工作的实践效率，凸显出学生评价的个性化特征，从而满足高职院校学生的受教育需求。

关键词：“五化一体”机制；高职院校；学生评价；优化创新

高职院校学生评价工作经历了长久的完善和发展，在不同阶段，评价依据、评价侧重点都发生了一定的变化。基于现阶段立德树人、五育并举的教育背景，职业院校的学生评价工作也需要实现创新和完善。通过融入多元评价主体，实现多角度综合评价，为提升评价效果，发挥评价作用提供保障。另外，教学评价模式创新为实践教育工作的开展起到指导推进作用。作为高职院校教师和教育管理人员，也应当及时转变观念，引入多方面资源和合作主体，实现学生评价工作进一步创新和完善。

1 “五化一体”背景下职业教育评价工作改革的现状

“五化一体”在教育评估领域主要是指立体化、多样化、科学化、专业化、全面化实施教学评估工作。学生评价在“五化一体”背景下，也更加强调结合理论知识和实践能力对学生进行全面培养，从思想意识、思想认知、提升培养等多个角度入手实现多元评价。引入多个评价主体、构建丰富完善的评价指标体系来完成评价工作^[1]。“五化一体”背景下，职业教育评价工作的改革要点包括构建类型特征背景下的评价导向、实现

发展创新型评价、引入多元评价主体、优化评价指标内容、构建现代化评价机制^[2]。改革团队只有结合新的评价要求，从评价工作落实开展的各环节入手实现创新优化，才能够适应现阶段高职院校学生评价工作要求，匹配具有创新性的教学方法，落实教学评价工作，凸显出教学评价工作的重要性，基于这一改革内涵不断优化高职院校学生的评价工作。从评价指标的筛选应用、评价工作的组织落实、评价实践中的讨论分析等多方面入手实现教学评价环节的完善和优化。从而实现以评价推动职业教育发展，促进学生专业能力提升，辅助学生综合素质优化的作用。

2 高职院校教学评价创新实践要点

2.1 引入多元主体参与评价

高职院校学生评价工作经历了一个循序渐进的发展过程，在评价工作落实的过程中，前期的教学评价以学生的考核分数为基础，实现量化评价。此种评价方式的主导权集中在教师一方。教学评价所参照的指标以及教学评价方式都存在过于单一的问题。^[3]随后，高职院校学生评价工作向过程评价的方向

发展。这一阶段学生开始进入教学评价的过程中,学生互评和自评模式引入高职院校学生评价的工作中,这也与现阶段的教学方式的创新教学实践力度的加大有关。进入现阶段五化一体的教育评价发展时期后,教学评价工作更加强调评价指标评价维度的多元性和个性化,强调突破“五唯”模式,以学生的动态发展为宏观基础进行评价工作的落实,引入多种不同类型的评价工作主体,运用更加具有创新性和多元性的评价方法,设置更加科学完善的评价指标,为评价工作提供支持。另外,在多元评价主体的引入过程中,教师学生以及社会环境中的企业、政府都可不同程度地参与高职院校的学生评价工作,分别从教学实际的微观层面和人才培养的宏观层面为学生提供全方位评价,从而依托评价工作的多方落实为教育工作的优化创新提供支持。

2.2 不断创新完善评价体系

评价体系的构建在实践中需要引入多方面主体和考量指标,也需要综合考量多方面影响因素。因此,教学评价过程中,评价体系应处在不断完善优化的状态。高职院校应结合现阶段评价工作落实时出现的实际问题,基于原始的教学评价体系进行逐步创新。在进行评价体系创新时,也应注重对评价方法应用效果的观察,一旦发现评价指标存在不合理之处,应当及时优化调整。除此之外,评价体系在引入新指标时,也需要经过多方评估,引入具有实践经验、具有专业能力的评估主体对评价指标的应用合理性进行评估观察。完善评价指标体系,优化评价工作质量,这将为学生评价在高职阶段的执行落实提供依据。在评价体系完善的过程中,高职院校不仅要融入新的评价指标和评价方法,一些传统评价体系中不具备适宜性的指标也应当及时剔除,以动态完善的方式为评价指标体系的构建提供支持。只有这种不断完善,不断创新,不断发现问题、解

决问题的评价指标构建模式,才能够适应“五化一体”学生评价工作要求,打破传统的评价工作模式的局限^[4]。

3 “五化一体”背景下的高职院校学生评价创新实践路径

3.1 借助理论支撑,构建五化一体评价机制

专业理论的支撑对构建良好的评价机制有重要作用。本文主要借鉴多元智力理论,为五化一体背景下的评价机制构建提供依据。从现阶段的实际情况来看,高职院校学生所面临的学习环境、就业环境、产业发展环境都呈现出多元复杂的特征。另外,在科学技术飞速发展的状态下,一些技术性岗位、智能化岗位的出现也使得职业院校的人才培养学生评价维度需要进一步结合具体的人才需求、市场需求进行优化调整。基于“五化一体”背景,评价主体、评价内容、评价方法、评价方式、评价过程都应当实现更进一步的优化。高职院校可以应用多元主体、多维内容、多样方法、具有个性化的评价组织方式以及动态变化的评价过程推进,为取得更加全面更具客观性和全面性的评价效果提供保障。对于职业院校学生来说,这种动态性和创新性相结合的评价方式,也符合高职院校学生个性化发展需求。能够促使学生基于多维评价实现理论学习能力、实践能力、就业创业能力等多方面的全面提升。下图1为五化一体背景下的可持续发展评价机制结构图。

通过观察结构图可知,在可持续发展背景下评价工作的落实需要引入各方面主体,需要实现方法、路径方面的全面创新。同时,也要适应现阶段产业发展、先进技术引入应用、多样化的市场环境状态,从评价机制构建入手,为创新型人才培养提供保障^[5]。高职院校应确保通过多角度评价,从多个方面提升学生的综合实践能力,使其成长为适应现阶段社会发展需求的复合型专业人才。



图1 基于可持续发展的“五化一体”评价机制结构图

3.2 融入专业文化，积极引入发展性评价指标

专业文化的融入是提升评价工作严谨性和系统性的重要条件。不同学生的专业差异，也会给教学过程中所选取的评价方法带来新的变化。因此，在具体的创新评价方式应用时，也需要首先考虑专业文化与评价体系指标的有效融合，创新完善发展性评价方式。不同的专业应当基于其理论课程、实践能力培养以及个人未来就业与创业发展等多角度构建评价体系。高职院校在教学环节中应匹配应用创新教学方法，引入具有创新性和灵活性的教育资源，加强校企合作，为学生评价工作的多元主体的引入，以及多种方式的运用奠定基础。除此之外，在不同的专业背景下，学生的实践学习能力，实践学习需求可能存在个性化特点。因此，教师也应当注重结合学生的主观需求引入发展性评价指标，以灵活多元的评价方式帮助学生学习专业知识时，完成好基础理论知识学习任务，完成好实践学习任务。此外，高职院校应进一步实现教学维度、教学内容、教学实践方式的拓展与完善。除此之外，不同类型的专业教育中，专业文化的融入也需要符合专业领域的政策规范标准化的要求。从高职院校人才培养的角度来看，专业标准、职业技能、行业企业标准在教学评价环节都应当作为专业文化融入后的参照指标。无论是在专业课程教学组织的过程中，还是在实践教育引导的过程中，教师都可以借鉴专业标准化政策规范对学生

相关能力培养的效果、相应实现方法的掌握程度进行观察，并做出全面评价，循序渐进地以发展性的思路对学生进行评价，用评价引领学生的能力提升，促使学生的专业成长水平达到更高层次。

3.3 融入互联网先进技术，优化评价工作方法

近年来，互联网、大数据和人工智能的高速发展，推动了互联网领域的信息技术与各产业的深度融合。“互联网+”教育的应用也在逐步推进。因此，在高校一体化评价体系的构建过程中，学生评价工作也需要基于教学维度的拓展，实现评价方法与评价模式的创新优化。例如，在职业院校学生的受教育阶段，互联网大数据技术给不同专业学生的实践学习与理论学习带来了更为便捷、更加丰富多元的信息资源，同时，也实现了教学方法的创新。而回到本文探讨的教学评价问题上来，教学方式需要通过动态调整以适应教学评价的创新，也应当融入先进的技术方法、充分利用互联网平台智能化技术的优势，促进评价工作的方式方法、评价指标的分析与设计更加精准，更加科学。例如，在现阶段的学生评价工作中，教师就可基于计算机系统 and 大数据平台的支持，在教学评价环节应用大数据技术绘制学生用户形象。将学生在高职院校学习阶段的各维度学习状态进行综合分析，形成具有个性化的学生学情档案。教师可以利用大数据技术进行数据计算分析，构建合理的评价指标、

从而为实现个性化的评价提供支持。另外,大数据技术和计算机网络平台还能够完成对评价体系指标权重的计算分析工作。通过先进技术的支持,使得权重指标的设置和分配合理性获得提升,最终获得更加客观全面的评价结果。对于学生来说,这种更加全面,更加具有灵活性和精准性的评价模式和评价结果更具备参照价值。学生可基于综合评价结果对个人的学习状态,学习能力进行全方位把握,为个人未来的发展成长指明方向^[4]。

3.4 立足职业特征,开展导向性评价

基于学生的职业特征进行评价主要强调从学生的岗位胜任能力、职业环境适应能力等方面对学生进行评价。这种评价方法具有拓展延伸的特征,是一种基于学生进入社会环境后的职业能力开展评价的评价方式。导向性评价立足于不同学生的专业学习内容。学校需对相关行业领域的发展状态、人才需求以及职业特征信息进行全面了解,以职业发展、职业能力培养为导向实现评价指标的构建,应用更加具有创新性和实践性的评价方法落实评价工作。只有兼顾学生的个性化发展需求以及学生所学专业的人才培养需求进行分析,才能做到以学生的发展为基础开展导向性的有效评价,以学生发展的基础情况为前提条件,使评价工作更具个性化,使评价工作对教育过程的引导作用得以充分地体现出来。从实际出发来讲,在基于职业特征的学生导向性评价过程中,高职院校需要深化产教融合,加强校企合作,积极引入社会维度的企业主体、社会组织主体、政府主体开展学生评价工作。高职院校从学生的社会适应能力、综合实践能力入手对学生进行评价与观察,充分提高评价工作的发散性和综合性,同时发挥出导向性评价的作用,引导学生基于职业环境需求、市场发展需求调整学习方向、找准个人发展方向提供重要支持。从学生自身发展的角度来说,其未来的职业发展不仅关系到其个人所学的专业知识与专业能力是否能够发挥相应作用,更关系到学生未来在社会上的生活体验。因

此,评价体系的完善更需要高职院校从多角度引导学生基于评价实现全方位成长。

4 结语

通过本文分析可知,在“五化一体”的教学评价背景下,高职院校的学生评价创新优化需要结合教学方式的创新优化、多元主体的引入应用以及评价方法、评价模式的创新。同时,先进技术的支持也会在评价模式创新的过程中发挥重要作用。高职院校的管理者、教师和学生都应当认识到自身在评价过程中的重要作用。高职院校应借助现阶段新的评价模式要求,为促进高职院校学生的全面发展,使其成长为适应社会需求、市场需求的素质过硬的人才提供保障。

参考文献

- [1] 陈晨.多元视域下高职院校学生学业评价体系构建与实践[J].交通企业管理,2023,38(2):97-99.
- [2] 严玲玲.基于“四个评价”的高职课堂教学质量学生评价改进策略研究[J].职业教育(中旬刊),2023,22(2):22-25.
- [3] 王惠琼.基于学生评价的高职商务翻译课程教学改革策略——以四川省部分高职院校为样本的调查[J].成都师范学院学报,2022,38(10):59-64.
- [4] 聂强,聂强.基于类型特征的高职院校学生评价改革指标体系的构建研究[J].中国职业技术教育,2021,(28):13-18.
- [5] 魏娜,张小蕾,董佳华,等.高职院校教育质量评价机制改革路径分析——基于学生参与评价的视角[J].成人教育,2021,41(7):57-61.
- [6] 周莉江.高职院校学生综合素质评价体系研究——以乐山职业技术学院药学系为例[J].科教导刊,2020(12):6-8.

基金项目: 本文系 2022 年河南省职业教育教学改革研究与实践(规划)项目“基于类型特征的职业教育‘五化一体’评价机制研究与实践”(课题编号:豫教[2023]03005)。

2. 《现代职业教育推进技能型社会建设的技术逻辑与行动策略》， 河南经济报，2024.05

河南经济报/2024 年/5 月/9 日/第 009 版
理论

现代职业教育推进技能型社会建设的技术逻辑与行动策略

河南工业职业技术学院 任越美 陈婷婷

摘要：推进技能型社会建设，是实现产业发展与民生福祉的必然要求，也是释放技能人才潜能，促进国家竞争优势稳步提升的战略需要。职业教育作为满足公民规模化技能需求的核心渠道，是服务技能型社会建设的重要力量，为其提供有效的技能型人力资本供给。职业教育推进技能型社会建设是一项复杂的技术赋能工程，为此，本研究从技术逻辑角度深入剖析职业教育与技能型社会构建的内在关联逻辑及面临的现实问题，并在此基础上提出职业教育服务技能型社会建设的对策。

关键词：技能型社会；职业教育适应性；技术逻辑；技能型人力资本

一、职业教育推进技能型社会建设的价值意蕴

2021 年 4 月，全国职业教育大会创造性地提出了建设技能型社会的重要理念，而且描摹了“国家重视技能，社会崇尚技能，人人学习技能，人人拥有技能”的技能型社会特征，促进社会的进步和个人的全面发展。由“学历社会”走向“技能型社会”，是人类拥抱美好生活的内在需要，也是经济社会向前发展的必然要求。当前，以技术创新为驱动的产业转型升级正不断增加对高素质技术技能人才的需求，职业教育如何服务技能型社会成为学术层面关注的前沿现实问题之一。

技能型社会的切入点和最终目的指向技能人才的培养，通过技能形成促进人力资本提升。国家“十四五”规划明确指出“注重发展技能密集型产业”，劳动者技能将作为重要因素进入国家新发展格局的内循环中。建设技能型社会的关键是促进社会技能文化认同与技能型人力资本供需长效匹配。然而，囿于传统观念和现实因素，职业教育推进技能型社会建设仍任重道远。

二、职业教育与技能型社会建设的现实困境

（一）社会形象固化，职业技能文化认同度不高。一方面，与学术成才道路相比，技能成才道路并未得到广泛认同，有利于技能成才的社会文化支持系统不够健全。另一方面，长期以来，社会对职业教育的认同感普遍不强。职业教育技能文化环境氛围的营造相对欠缺，职业学校“低人一等”“就业不体面”“技术技能型人才地位不高”等负面刻板印象，严重影响了职业教育的高质量发展。从种种现实表征来看，确实需要加强职业教育和技能文化传播，适应现代社会对技能的需求，推动技能型社会的建设。

（二）产教融合不深，职业教育技能人才供需失衡。随着新兴高技术产业特别是智能制造业的快速发展，社会对高素质技术技能人才的需求更为迫切。中国新就业形态研究中心发布的数据显示，近年来技能劳动者的求人倍率一直超过 1.5，高级技工的求人倍率甚至超过了 2。高素质技术技能人才供需之间的失衡已经成为制约我国产业结构升级的重要因素。而职业院校作为技术技能人才供给的主要来源，现有的专业建设和人才培养模式与企业需求存在一定的脱节现象，难以满足技能型社会人才需求。因此，职业教育要进一步深化产教融合，不断提升适应性和服务能力，以实现技术技能的职前职后一体化培育。

（三）共育机制失灵，职业技能治理体系不健全。近年来，国家政策对于依托职业教育实现技能人才供需长效匹配已有了相当程度的关注。党的二十大召开后，更是出台了《关于深化现代职业教育体系建设改革的意见》，提出“有序有效推进现代职业教育体系建设改革，切实提高职业教育的质量、适应性和吸引力”。但反观现实样态，我国技能人才工作区域发展不平衡的问题比较突出。

三、职业教育推进技能型社会建设的技术逻辑

职业教育推进技能型社会建设是一项复杂的技术赋能工程，需从技术逻辑角度剖析职业教育与技能型社会建设的联动之道。职业教育推进技能型社会建设的技术逻辑在于，职业教育将自身教育系统发展所集聚的技术势能转化成经济社会系统高质量发展所需要的技术动能，以实现技术赋能。

（一）技术势能的形成是职业教育推进技能型社会建设的技术理念彰显。首先是通过回归技术教育，提供技术“教育位”支撑技术技能人才与现代产业发展匹配；其次是通过强化技能人才培养的社会文化支持，提供技术“文化位”支撑技能文化认同；最后是通过锚定技能报国，提供技术“生态位”支撑面向技能型社会的国家职业教育治理生态体系构建。

（二）技术动能的获得是技能型社会建设对职业教育功能诉求指向。首先，技能型社会建设是实现产业振兴的根本之要，需要依托职业教育形成技能人才供需长效匹配的产业格局。其次，实现社会技能文化认同需要依托职业教育，将技能渗入社会文化，形成人人尊重技能的文化氛围。最后在技能型社会的发展理念下回应全人群、全生命周期技能普及的公共发展诉求，需要增强职业教育社会认可、夯实职业教育公共服务生态治理机制。

（三）技术赋能是职业教育推进技能型社会建设的必然进路。职业教育推进技能型社会建设的技术赋能在于职业教育系统所累积的技术势能与技能型社会建设系统所需要的技术动能的顺畅转换。首先是职业教育要拓宽人人学习技能的平台路径，通过技术教育培养技术技能人才，增强对产业转型升级的带动效应；其次是职业教育要融入技能型社会建设全过程，使得人人能够参与技能型社会的形成，形成共建共享的发展格局；最后是职业教育要跟进技能型社会建设的需要，促进技能培养提质增效，使人人具有终身学习技能、拥有技能、使用技能、感恩技能的情怀和能力。

四、职业教育推进技能型社会建设的纾解对策

（一）提高技能型人才培养质量，满足技能型社会人才需求。根据专业人才培养需求，持续深化校企合作、产教融合，融合校、企双方资源，以立德树人为根本任务，思政课程和课程思政联动，打造以课堂教育、文化氛围、社团活动和社会实践为载体的德技并修素质教育体系；将创新创业教育融入专业人才培养全过程，打造涵盖创新创业教育、创新创业实践平台的专创融合培养体系；“岗课赛证”融通，精准对接工作岗位，将 X 证书融入课程体系，结合电子与信息大类技能竞赛，实现以赛促教，将专业群相关技能大赛考核知识点融入课程内容，进一步完善“双元协同、德技并修、专创融合、课证融通”的“双元双修双融”人才培养模式，培养具备复合型和创新型技术技能的人才。同时，在人才培养实施过程中融入创新创业教育，建立包括创新创业教育和实践平台在内的专创融合培养体系。结合“1+X”证书制度改革和精准对接工作岗位，将证书标准纳入课程体系中，结合电子与信息大类技能竞赛，将相关技能竞赛的考核知识点融入课程内容。通过与企业紧密合作，学生将能够更好地了解工作岗位的要求，并获得实际操作的机会。思政课程的融入将培养学生的道德品质和社会责任感，而创新创业教育的融入将激发学生的创新思维和创业意识。通过以上措施的实施，能够构建一个全面的、与时俱进的专业人才培养体系，为社会培养出复合型、创新型的技术技能人才。

（二）丰富技能型人才学习途径，提高实践教学水平。引入行业新技术和新流程，建立基于职业工作的混合式教学资源，设计更高质量的学习任务和学习环境，为学生提供多种交互学习的可能性和支持工具。以“提高质量，增强功能，需求导向，推广共享”为专业教学资源库继续建设的主要策略，顺应“信息技术+专业”的时代需求，校企共建视频类、动画类、虚拟仿真类信息化资源。引入行业企业的新知识、新技术、新标准，动态更新教学内容，开发新的智慧型职业教育资源，实现授课内容模块化、授课形式多样化，满足教学和社会培训需求，主动服务产业结构转型和社会经济发展。同时，根据多元化的教学资源库内容，以培养职业能力为主线，对标技能大赛、“1+X”证书和国家职业标准，借助人工智能、大数据、虚拟现实等信息化手段，打造一个数字化的教学资源平台。该平台将提供多种教学资源，如教学案例、视频和多媒体资源、虚拟

实验室和模拟软件、在线合作和交流工具等。通过这些资源，学生可以实践操作、探索领域知识，获得实际应用的经验。我们还邀请专家举办讲座，组织学生进行实地考察和参观，丰富学生的学习内容、拓宽学生的视野。数字化教学资源平台为学生提供个性化的学习体验，帮助他们更好地应对职业需求和未来挑战。

（三）营造技能文化氛围。具体而言，可以开展劳动教育和职业启蒙教育，为中小學生提供职业启蒙、职业认知和职业体验的支持，以及为大学生职业生涯规划提供引导。如建立省级职业启蒙和职业体验基地，并联合区域中小学校和行业企业进行多方合作，建立线上线下的实践平台，其中包括数智创客室、工匠工坊等，并开发项目化资源。通过搭建全面的体验平台，学生能够在实践中探索职业领域，了解不同行业的工作内容和技能要求。通过与行业企业的合作，学生可以参与真实的职业体验，了解职业生活的细节和内涵，并获得实际操作的机会，培养学生的职业意识和职业素养，引导他们尊重劳动、崇尚劳动，将劳模精神和工匠精神融入他们的成长过程。通过普职融通和劳模精神、工匠精神的引领，我们能够为学生的成长和社会的发展作出积极的贡献。此外，还需要努力打牢技能成才的社会基础。如在薪酬待遇方面，缩小技能人才与管理者之间的工资差距，并将技能水平作为工资分配的重要依据，有助于提高技能人才的收入水平，使他们得到应有的回报。在职业发展方面，打通技能人才的成长发展渠道，推广“新八级工”制度等举措能够为技能人才提供更多晋升机会，增强其职业发展的可持续性。在社会地位方面，加强对技能人才的宣传，通过各种形式的宣传和倡导，让更多人了解技能人才的重要性和价值，从而改变社会对技能工作的认知，提高技能人才的社会地位和认可度。这些措施的实施需要政府、企业、职业院校和社会各界的共同努力与支持，以营造尊重技能、尊重技能人才的社会氛围。

基金项目：河南省职业教育教学改革研究与实践项目“高职院校推进技能型社会建设路径研究与实践”（项目编号：豫教〔2023〕03006）；“数字赋能 提质增效：高职院校智慧教学新生态的探索与实践”（项目编号：豫教〔2024〕05783）。

3.《高职院校会计专业审计教学改革策略探究》，教育研究,2023.03

教育研究



本刊由谷歌学术、中国知网检索，所有录用文章通过国际权威检测查重系统“Crossref”的检测并经过专家审定，期刊在新加坡国家图书馆存档，本刊遵循国际开放获取出版原则，全球公开发刊，欢迎投稿和下载阅读。

教育研究



2023年第3期



ISSN 2661-4960



9 772661 496027

2023[5]03

第5卷第03期

ISSN:2661-4960

03



《教育研究》

主管单位：新加坡教育研究出版社

主办单位：新加坡教育研究出版社

主 编：王付娟

执行主编：郑文昌

编 辑：李志青 王 宁 郑 昊 王 丽

潘勇恒 王新福 杨嘉嘉 邹 敏

王玉书 沈 梦 胡晶晶 杨森林

王淑君 王忠霞

电 话：010-80818140

邮 箱：gjkzxtg@126.com

国际刊号：ISSN 2661-4960

出版日期：每月25号

定 价：20元

出版单位：EDUCATIONAL RESEARCH

PUBLISHING PTE. LTD.

73 UPPER PAYA LEBAR ROAD #07-02B

CENTRO BIANCO Singapore 534818

目 录

职业院校参与建筑业农民工职业技能培训实践对策——周树平 1

高职院校“双师型”教师队伍建设的问题及措施

——以学前教育专业为例——郑易妹 3

基于 OBE 理念的《采购管理实务》课程教学改革与实践

——张晓红 5

“双减”背景下小学数学单元项目化作业设计实践探索

——张晓雷 7

美术摄影的多元展开及其视觉现代性——薛令昆 9

双减背景下小学语文作业设计的创新性探究——马媛媛 11

高职院校现代物流管理专业群建设路径研究——李菁 13

探析新课程标准下的初中英语词汇教学——黄建亚 15

核心素养视角下小学语文教学与信息技术融合路径——党元香 17

高职院校会计专业审计教学改革策略探究——张延泰 19

新时代我国地方本科院校电视新闻课程教学改革研究——王文东 21

研究生《多元统计方法与应用》课程教学改革探讨——王惠惠 23

网络热词背后青少年思想政治教育问题与对策探析

——汤举敏 邓明涛 王婧琦 许幸 25

广东省佛山市常教社区居民社会联系路径分析——凌远清 27

市场营销学课程思政融入课堂教学探析——郭莉娜 30

空间理念下的环境设计专业形态构成课程教学创新研究

——王 涵 王 航 32

如何进行小学数学概念教学——郝慧玲 34

融媒体背景下高校图书馆文化传播思路探索——崔惠峰 36

整体单元化教学中高中数学教学目标的制定——许勇 38

职业学校体育课实行模块教学改革的对比与分析——王 静 40

英语语言文学作品翻译中的译者主体性探索——孙晓雷 42

基于“四史”学习的高校思政教育创新路径研究——孙婧 44

高职院校会计专业审计教学改革策略探究

张延泰

(河南工业职业技术学院 河南省南阳市 473009)

摘要: 结合实际情况来看,在我国社会经济体系不断发展的背景下,人们对于审计行业愈发重视,这使得多数高职院校均逐渐正确认识到了会计专业审计教学工作的开展价值。但是,由于高职院校自身课程设置等多方面因素的影响,致使如何在全面满足高职教育开展要求的同时,针对学生的职业能力与社会适应能力进行有效培养成为了高职院校会计专业审计教学改革的主要方向。基于此,本文针对高职院校会计专业审计教学改革策略进行深入探讨,望能够对相关工作的开展起到一定的帮助。

关键词: 高职院校; 会计专业; 审计教学; 改革策略

Research on Teaching Reform Strategy of accounting major in Higher vocational colleges
Yantai Zhang

(School of Economics and Trade, Henan Polytechnic Institute, Nanyang, Henan Province 473000)

Abstract: Combined with the actual situation, under the background of the continuous development of our social and economic system, people pay more and more attention to the audit industry, which makes most higher vocational colleges gradually realize the value of auditing teaching of accounting. However, due to the influence of many factors such as the curriculum of higher vocational colleges, how to fully meet the requirements of higher vocational education while effectively training students' vocational ability and social adaptability has become the main direction of accounting audit teaching reform in higher vocational colleges. Based on this, this article for higher vocational colleges accounting professional audit teaching reform strategy for in-depth discussion, hope to be able to carry out the relevant work to play a certain help.

Key words: Higher vocational colleges; Major in accounting; Auditing teaching; Strategy of reform

随着我国经济体系的高速发展,我国金融机制以及市场监管体系得以不断完善,审计工作所具有的开展价值也因此变得尤为重要。由于审计工作开展价值的提升,使得多数高职院校均逐渐开设了会计专业体系中的审计课程教学。结合实际情况来看,审计学科具有知识更新速度快、综合性强等独特特点,这些特点的存在使得部分高职院校开展的会计专业审计教学活动无法与高职院校人才培养需求相适应,进而急需进行改革。高职院校在针对自身会计专业审计教学进行改革时,其需在明确高职院校人才培养要求的基础上,确保教学改革工作的开展能够在有效提升专业课程教学质量与效率的同时,针对学生的职业能力与社会适应能力进行全面培养,最终为高职院校会计专业教学改革目标的实现奠定更为坚实的基础。

一、高职院校会计专业审计教学现状及成因

针对审计教学内容进行深入分析我们能够得知,其主要涉及着会计、税法以及财务管理等众多学科知识,通过审计教学活动的开展通常能够在帮助学生巩固基础课程知识内容的同时,为其知识总结与实践应用能力的提升提供更为充分的保障。相对于普通财经类专业学科来看,由于其对于学生的综合分析能力以及实践能力提出了较高的要求,致使审计教学活动的开展具有较大的难度。

(一) 课程认识偏差,知识涉及宽泛

结合实际情况来看,在当前社会,高职院校会计专业审计教学活动的开展主要是为了确保学生能够在真正理解审计课程基本知识内容的基础上,有效掌握审计基础技能,从而促使学生的会计工作能力以及审计工作能力均能够得以有效提升,进而从本质上拓展了学生日后的就业方向。但是,根据现阶段高职院校会计专业的开设现状来看,其大多存在着过于重视会计知识教学等负面问题,从而严重的侧影响了审计专业知识教学活动的开展成效,最终导致学生往往难以正确认识到审计专业知识的学习价值。其次,由于审计教学自身具有相对较强的专业性,且与众多学科之间存在着十分密切的联系性,这使得学生若想更加有效的掌握审计技能,其便需具备良好的专业知识基础^[1]。但是,由于学习其他知识体系的时间相对较

短,再加上实践经验的缺失,致使学生在往往难以对其进行有效学习。在此背景下,学生在参与会计专业审计教学活动时大多无法做好相关知识的融会贯通,进而大大提升了学生学习的困难性。

(二) 教材内容抽象,脱离实务

高职院校在落实会计专业审计教学活动时,教材本质上指的就是教学活动的开展载体,其属于影响教学活动开展效率与质量的主要因素之一,通常情况下,科学的教材内容能够进一步确保高职院校会计专业审计教学活动的开展质量。但是,在当前社会,部分高职院校却未能将审计课程教材所具有的价值全面发挥出来,并存在教材利用效率较低等负面问题,其具体表现如下:1、现阶段,高职院校审计课程教材的内容主要为CPA审计内容,且大多为理论知识,即使教材中涉及着一些审计案例,其也往往局限于小例题与调整事项等基础性内容;2、部分高职院校的审计教材内容大多是通过直译的方式编写的,这使得教材内容通常与汉语思维模式之间存在着较大的偏差,学生在学习时则需要针对教材中的专业理论知识进行深入揣摩方能明白其中的含义;3、在编写教材时,由于传统应试教育理念的影响,知识教材中各章节内容虽然具有各自相应的知识点,但是却未能针对审计工作的系统化开展程序进行有效把握。例如,在如何编制审计工作计划等方面内容中,教材往往仅涉及计划编制要求与编制内容等,却未能将如何进行编制进行详细讲解^[2]。

(三) 教学模式单一,实训建设滞后

在当前社会,高职院校在落实会计专业审计教学活动时,由于传统教育理念的影响,致使教师所采用的教学模式通常为知识讲解+学生练习+核对,这类模式虽然能够适用于多数学科的教学活动,但是其却无法满足审计教学活动的开展需求。现阶段,讲授法为高职审计教学活动的主要开展方法,虽然部分教师逐渐认识到了案例教学法以及项目教学法在审计教学中的应用价值,但是,由于教学条件以及学生基础能力等多方面因素的影响,致使往往难以将这类高效的教学方法落实到审计教学活动中去。例如,部分教师在应用案例教学法开展相关教学活动时,其大多会以讲解分录这类案例

为主,并借此来针对学生的财会能力进行有效考核,这使得案例教学法的应用并不能起到提升学生审计专业能力的最终效果;在采用项目教学法落实审计教学活动时,则会由于学生自身基础能力的不足致使其无法有效参与到课堂教学中去,进而导致学生大多会过于依赖教材答案与教师,这类现象的出现则会严重限制学生独立思考能力的发展效率,久而久之还会对教师开展教学活动的积极性造成十分直接的影响,最终导致项目教学法的应用价值无法得到全面发挥^[1]。

除此之外,与会计实践项目的建设相比,高职院校在审计实践建设及基础设施配备方面存在着较为明显的不足,这使得高职院校会计专业审计教学活动的开展往往缺乏实训基础的支持,进而导致高职院校审计教学活动的开展无法有效提升学生的实务能力,最终严重背离了高职院校的人才培养目标。

二、高职院校会计专业审计教学改革措施

审计工作价值的提升使得高职院校需正确认识到自身审计教学工作中存在的不足之处,并通过针对审计教学进行改革的方式来为社会输送更高质量的应用型专业人才。

(一) 提高课程认识,合理设计教学

现阶段,伴随着全球经济的不断发展,审计工作所具有的价值与地位也在不断的提升着。在此背景下,高职院校需正确认识到审计教学活动的开展价值,并将其作为会计专业课程体系的重要组成部分,从而在有效提升高职院校会计专业课程内容丰富性的同时,帮助学生有效掌握审计专业知识与技能,从而为学生日后就业方向的拓展打好基础。结合实际情况来看,审计教学活动的开展具有难度大、内容枯燥等特点,这使得教师在落实会计专业审计教学活动时需借助多种教学方法的综合应用来不断提升学生的学习积极性,进而在充分确保审计教学效果的过程中,为学生审计专业能力的提升提供更为充分的保障。为此,教师在进行审计知识讲授工作时,其可通过多媒体教学设备的合理应用来借助视频、图像等手段将原本枯燥的审计专业知识更加直观且生动的呈现给学生,从而在有效应对审计专业知识所具有的抽象化特征的同时,确保学生能够积极的参与到课堂教学中去,从而帮助其在深入理解的过程中,真正掌握审计专业知识。其次,教师还可通过合理引入课堂提问教学手段来增加课堂上与学生的互动性,进而从本质上避免因教学内容过于枯燥对学生学习积极性造成的负面影响。再次,教师在应用案例教学法开展审计教学活动时,其需在教材内容的基础上,做好教学案例的选择工作,从而帮助学生在有机整合所学知识的同时,提升学生对于参与审计教学活动的兴趣^[2]。此外,在采用案例教学法时,教师需正确认识到自身具有的引导价值,并通过组织学生针对案例进行研讨的方式来有效提升学生的问题分析以及解决能力,最终为学生会计专业审计知识、技能学习效果的提升以及教学改革效率的提升奠定更为坚实的基础。

(二) 精简创新教材,考评方式多样

在高职教育阶段,其教育工作的主要开展目标为,为社会培养高素质、高技能的应用型专业人才,这使得高职院校在落实人才培养工作时,需将学生的操作能力与实践能力全面重视起来。在此背景下,高职院校在落实会计专业审计教学活动时,其需确保自身教学活动的开展与高职人才培养目标的一致性,并在此基础上合理选择审计教材,从而在全面贯彻实践为主、理论为辅教育原则的同时,为学生实践操作能力的提升提供更为充分的保障。为此,在落实审计教学活动时,教师需在摆脱教材束缚的同时,结合学生的基础情况,通过针对教材进行去繁就简的方式明确教材中的重点内容,从而进一步提升审计教学活动的开展效率;其次,审计教学考评工作的开展作为检验审计教学开展成效的主要手段,教师还需不断提升考评方式的多样性。现阶段,多数高职院校在针对审计教学进行考评时均以期末、期中考试为主,这类考评方式往往难以针对学生的实践操作能力进行全面考核,进而导致高职院校所具有的人才培养

特色无法得到全面体现。在此背景下,高职院校需在明确考评工作开展价值的过程中,针对自身审计教学工作的开展需求以及人才培养要求做好多元化考核体系的构建工作。^[3]1.通过案例研讨等与期中、期末考试进行有机融合的方式来提升考评工作的综合性,并借此来针对学生的审计实践能力进行有效考核;2.将审计教学活动与相关证书的获得进行有机融合,并适当鼓励学生积极参与审计相关竞赛,从而促使学生能够获得相应的职业证书,进而更加充分的满足现代企业对于专业人才的应用需求^[4]。

(三) 改革教学模式,加大实训投入

结合实际情况来看,在针对审计教学模式进行改革时,高职院校需在传统审计案例教学方法的基础上,科学的引入项目教学法与模拟教学法,并通过多种教学方法的综合应用来进一步提升学生的实践技能与职业判断能力,并帮助学生将理论与实践进行有机融合,进而为其审计思维的构建打好基础。在此过程中,教师可通过科学的选取某些企业的真实财务资料为学生创设出相应的审计工作环境,并将学生划分成若干小组进行模式教学,学生在参与模拟教学活动时,可在小组自由担任各个职位,例如,项目负责人、审计工作人员以及助理等等。其次,在应用模拟教学法时,教师还需予以学生科学的指导,从而确保学生能够真正按照审计流程完成相关审计操作,并做好审计报告,进而促使学生的实践操作能力能够获得更加有效的锻炼。

此外,在高职院校人才培养目标下,高职院校还需将审计工作体系中的实训教学环节全面重视起来,并根据自身的实际情况科学的提升对于实训项目的投入,从而在有效提升实训体系合理性、实训场景真实的基础上,确保学生能够在参与实训教学活动的过程中不断提升自身的审计专业能力。最后,高职院校还需将审计实训项目基础设施建设工作的开展严格落实到实处,并做好实训软件的开发或引入工作,从而在为学生营造真实审计环境、场景的过程中,为审计教学质量以及学生学习效果的全面提升提供更为充分的保障^[5]。

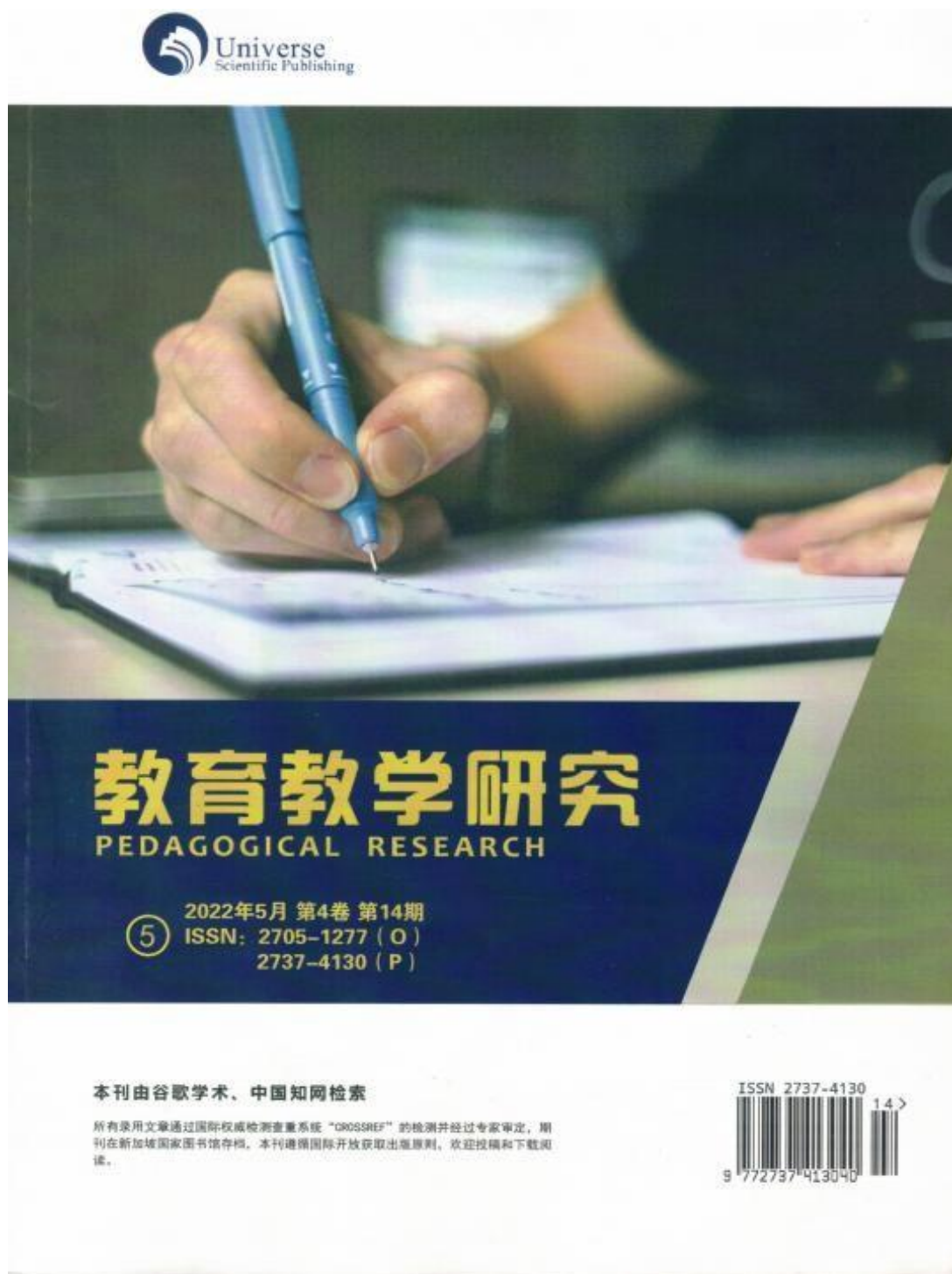
三、结束语

综上所述,根据现阶段部分高职院校会计专业审计教学活动的开展现状来看,由于高职院校对于审计教学的认识不足以及教材内容的抽象与教学模式的单一等多方面因素的影响,致使其会计专业审计教学活动的开展效率与质量往往难以得到有效提升。为此,高职院校需在明确自身专业人才培养目标的基础上,通过提升自身对于审计课程的认知、教材内容的创新以及教学模式的改革等工作的开展来从本质上应对自身审计教学活动中存在的不足之处,并以此来不断提升自身审计教学活动的开展效果,最终促使学生的审计能力以及专业实践能力均能够获得显著提升。

参考文献:

- [1]卢亚群.高职院校专业课程混合式教学改革研究——以基础会计课程为例[J].学园,2021,14(21):36-38.
 - [2]秦雪洁.“1+X”证书制度下高职院校会计专业教学改革研究——以纳税实务课程为例[J].当代会计,2021(10):9-11.
 - [3]姜晓利.大数据战略下高职院校会计专业教学改革途径探析[J].四川职业技术学院学报,2021,31(01):28-34.
 - [4]蒋昇伟.人工智能会计背景下高职院校会计专业教学改革问题的调研报告[J].山东纺织经济,2020(02):34-39+45.
 - [5]蒋昇伟.浅析人工智能等信息技术背景下高职院校会计专业教育教学方法的改革[J].科技与创新,2020(17):10-13.
 - [6]温莹.对人工智能时代背景下“技能大赛”引领高职院校会计专业教学改革研究[J].南宁职业技术学院学报,2020,25(04):28-32.
- 作者简介:张延泰(1971.11),男,汉,河南省方城县,河南工业职业技术学院,副教授,研究方向:财务会计理论与实务。

4. 《高职院校会计课程教学改革的实践与思考》，教育教学研究, 2022. 05



目录 CONTENTS

◆教育教学◆

乡村学校青年教师教学反思的问题、影响因素及提升对策

——基于三位乡村学校青年女教师的访谈研究

浅谈幼专大学语文教学中如何渗透文化自信教育

论协同育人的高校教育管理改革

OBE教育理念在民办高校会计专业教学改革中的应用研究

以人为本理念在高校教育管理中深入渗透思考

基础教育改革背景下的儿童文学与小学语文教育解析

——以儿童诗为例

试论创新教育理念下的高校教育管理

基于citespace的体育活动认同度研究现状与趋势

应用型大学教育管理改革思考

广西民族师范学院人才培养中融入体能训练的原则及对策

基于第一性原理思维进行跨文化交际英语课程教学研究

青少年乒乓球运动员体能训练的有效开展之道

OBE理念与新工科交叉下高等数学教学模式的探索与实践

应用型本科院校商务英语专业教学团队师资队伍队伍建设研究

青少年身心发展教育的策略研究

——以伊明爱国启蒙素质拓展实践中心项目为例

关于提高我大学生基础力量训练科学性的对策研究

创新创业背景下应用型高校人力资源管理专业实践教学体系改革研究

高校体育教育教学中新媒体技术的融合运用研究

“三位一体”模式在日语翻译实践教学中的运用

探讨“以人为本”的高等教育教育管理模式可行性策略

文本交涉理论下初中语文群文阅读教学策略探究

“双减”政策下的小学数学减负增效课堂的构建策略探究

面向信息化背景的大学英语翻译教学革新探索

基于课堂监控策略的中学英语听力教学研究

宜宾市兴文县苗族留守儿童家庭教育问题及解决策略研究

——基于学生公寓党员工作站志愿服务平台

◆课程创新◆

人工智能时代《电路》课程建设教学分析

中俄高中地理教材内容体系比较及启示

——以“自然环境与人类社会”为例

学习质量过程推动及激励措施培养模式构建与实践

大数据时代数学课程改革的思考

曹 颖 / 1

郑玲玲 / 4

李林楠 / 6

胡利平 / 8

罗 琦 / 10

蔡 娟 / 12

何 科 / 14

陈智亮 周鹏程 邓善洋 / 16

闵 威 / 18

邓建林 / 20

周 婧 / 22

李 东 / 24

李新慧 / 26

李 磊 / 28

李莹红 郑金华 虞婉婷 蔡娟 蒲怡静 / 30

陈 丽 李佳丽 / 32

刘 何 孔淘笛 / 34

刘君治 / 36

卢 莹 / 38

陆润发 / 40

吴泽冰 / 42

姚 霞 / 45

王 康 / 47

吴红霞 / 49

赵文佳 何丹丽(通讯作者) 马 容 刘思舒 张 容 / 51

王树文 张 冰 / 53

赵可心 / 56

屈敬雄 曾志强 马春生 温海敏 郭志宏 / 59

谭淑芬 / 61

探讨数控技术及其在智能制造中的作用	陈 颖 / 235
医疗机构中公共卫生管理工作的问题及对策研究	邓小利 张祥容 陈韵西 周嘉伟 / 237
传播学视角下互联网平台可供性研究及启示	封 叶 / 239
关于国有企业电子商务采购数字化发展的探索	李油源 / 241
寻解治疗视角下涉案未成年人的个案介入	贺光耀 陈晓敏 欧月玲 / 243
构建高校大学生创新创业教育服务平台的——诉求、阻碍与策略	纪珊珊 龙双庆 周泽军 蔡世金 杨静雅 / 245
物联网技术背景下的消防减灾监督管理研究	江 河 李 玉 李逸茹 / 247
加强管理提高民族地区研究生培养质量的几点思考	李欣丹 / 249
乡村振兴背景下辽北地区农村社会治理的任务变化、现实困境和对策研究	刘永春 / 251
师德考核负面清单制度在中小学实施的问题与对策	吕雪艺 / 253
高校男子篮球运动员开展专项力量训练的实践策略	蓝 洋 / 255
教育心理学视域下医学生创新创业能力与就业指导研究	茹 凤 / 257
从文学翻译角度谈中国文化发展	郭凡林 / 259
浅谈我国食品安全问题及对策探究	周朝歌 / 261
新时代高校国防教育开展现状及优化路径探索	谭声隆 / 263
“双碳”目标与武汉经济高质量发展路径研究	王曼纳 / 265
浅谈跆拳道技战术训练存在的问题与解决策略	王 艳 包 莉*** / 267
双高背景下电子信息专业企业兼职教师培养路径研究	魏海虹 / 269
习惯法视角下安多藏族妇女权益保护	薛忠堂 余瑾洋 / 271
数字经济对经济增长的影响	杨 杰 / 273
延安时期内蒙古的民族政策研究	张 元 / 275
脱贫攻坚与乡村振兴有效衔接的三重维度	袁甜甜 / 277
总体国家安全观视域下高校国家安全教育体系建设路径	谈 勇 / 279
BIM技术在地铁车站中参数化“族”的建立	田路野 金 彪 / 281

◆ 职业教育 ◆

“阳光体育”理念下的高职跆拳道教学改革与实施研究	冯三三 / 283
文旅融合下名人故居开发利用的几点思考和建议分析	邓雪晶 / 285
面向物联网的无线传感器网络关键技术研究	张维娟 胡 南 景 茹 姜 颖 / 287
高职院校会计课程教学改革的实践与思考	张延泰 / 289
职业本科院校实施“1+N”证书制度的障碍及策略分析	谢利萍 / 291
浅议区域职业院校校企合作中教学资源共享的作用与意义	丁晓江 / 293
新时代背景下高职人力资源管理专业教学创新研究	黄倩倩 / 295
网络空间博弈下强化高校意识形态工作的路径分析 ——以职业本科大学思政教育工作为例	江琳琳 / 297
浅谈大学教育管理的高质量发展策略	李 艳 / 299
高职美术专业油画技法课教学模式改革研究	赵 勇 / 301
高职四林绿化课程实践教学思考	耿慧云 / 303
互联网+背景下图书资料管理的有效性研究	苏 珂 / 305
职业教育改革背景下高职辅导员工作模式创新研究	黄冬健 / 307
试论职业院校机械加工实训教学改革的有效性	黄龙明 / 309
高职建筑工程技术专业融入BIM技术的人才培养模式研究	李 锐 / 311
探讨一体化教学模式在技工类院校计算机教学中的应用	冯依壮·查麦提依明 / 313
“一带一路”背景下职业教育多元合作办学模式探究	郝小霞·袁晓莉 张文新 冯炳旭 / 315
探究新媒体技术对高校学生教育管理的影响	刁克青 / 317
探究中职学生心理健康教育与德育融合策略	伍育瑜 / 319
新时代高校辅导员就业创业指导工作路径探析	熊倩倩 / 321
惠州市中职学生科技接受度的实证研究 ——以钉钉课堂直播为例	钟燕蓉 / 323
中职生发展困境与对策	周甲英 / 325

高职院校会计课程教学改革的实践与思考

张延泰

[河南工业职业技术学院 河南 南阳 473009]

摘 要:在信息化背景下,互联网技术已经应用到人们的生活中,极大程度上方便了人们。并且,互联网技术水平的提升也能够为高职院校人才培养工作提供新的思路。本篇文章简要介绍了高职院校会计课程教学现状,并提出了对其进行改革创新措施,希望能够为高职院校会计课程教学改革工作的顺利开展提供参考。

关键词:高职院校;会计课程;教学改革;实践;思考

Practice and reflection on teaching reform of accounting course in higher vocational colleges

Yantai Zhang

(School of Economics and Trade, Henan Polytechnic Institute, Henan Nanyang, 473009)

Abstract: Under the background of information technology, Internet technology has been applied to people's life and work, to a great extent, above the convenience of people. Moreover, the improvement of Internet technology can also provide new ideas for talent training in higher vocational colleges. This article briefly introduces the present situation of accounting course teaching in higher vocational colleges, and puts forward some innovative measures to reform it, hoping to provide reference for the smooth development of accounting course teaching reform in higher vocational colleges.

Key words: Higher vocational colleges; Accounting course; Teaching reform; Practice; thinking

在信息化时代,对于互联网技术进行应用,能够让人们的工作更加高效。当前,企业对于会计人才的标准出现了变化。高职院校在对于会计人才进行培训时,必须要考虑到时代特征以及会计人员现实需要,更新会计课程教学改革模式,确保所培训出的会计人才可以适应岗位工作需要,为社会的发展输送较多高质量的会计人才。

一、新时代对于会计人才的新要求

(一) 需要了解互联网相关知识

在信息化背景下,人们可以更加高效的进行一系列工作,将互联网技术融入到会计工作之中成为了时代发展的必然,因此企业会计人才必须要具备对于会计系统进行应用能力,并与时俱进的对于会计信息系统进行更新换代。从企业会计人才的角度来看,其需要了解更多互联网相关知识,熟练的对于信息化技术进行应用,增强自身的信息素养,为后续会计工作的有序开展提供条件。

(二) 要对于会计管理工作予以充分关注

在新形势下,高职院校开展会计教学必须要对于会计管理工作予以充分关注,这也是目前教学的重点。因此,学生想要参与到会计工作中,就必须要有较强的专业素养和管理能力。这对于企业的发展有着不容忽视的作用。因此,教师在组织学生进行学习时,必须要增强学生的专业知识储备,确保学生有较强的服务意识和管理能力^[1]。

(三) 学习其他国家会计相关知识

在新时期,世界经济趋于一体化,企业想要获得发展,不仅要考虑到国内市场,还需要注重国际化市场需求,因此对于会计人才有了更高的要求。希望会计人员可以适应岗位工作,并在做好本职工作的同时,开展一些管理工作,这是增强企业整体实力的重要手段。因此,高职院校在组织学生进行学习时,必须要合理的投入资源,确保学生可以通过学习掌握更多其他国家的会计知识,成为企业需要的人才,为企业的国际化发展提供条件。

二、当前高职院校会计教学存在的问题

(一) 所用的会计教学模式较为落后

对于高职院校会计教学现实情况分析发现,因为传统教育观念和教学模式的影响,教师在对于学生进行会计教学时,学生存在

着排斥心理。对于会计专业知识缺乏认识,无法高效的开展学习,这从某种角度来说,阻碍了我国会计行业的发展。在信息化时代,高职院校应该加大力度培养会计专业教师,确保会计教师具有较强整体实力。然而,由于一些因素的影响,高职院校大部分教师的年龄比较大,虽然有丰富教学经验,但是对于互联网等现代化技术的了解比较少,无法将互联网相关知识融入到会计教学中,难以为社会的发展输送高质量的会计人才^[2]。

(二) 没有结合实际情况

目前,高职院校在设置会计专业时,教师并未考虑到会计专业的实用性需求,正确学生的现实操作能力。对于相关资料调查发现,大多数高职院校在设置会计专业课程时,仅将理论知识传授作为关键,实践课程较少,学生很难增强自身整体实力,对于学习缺乏热情。并且,在学生步入社会以后可以发现自身所具备的知识很难适应岗位工作需要,学生失业率比较高,这也不利于会计事业的发展。

(三) 会计教学设置存在问题

当前,高职院校在进行会计教学时,存在着为了在规定时间内结束教学,盲目赶进度的情况,并不关注学生是否真正掌握了相关知识,导致学生在开展会计学习时,效果并不是非常理想。无法借助于所学的知识解决出现的问题,学生很难胜任新时期岗位工作。

三、会计教学改革的思考

第一,要对于教学内容做出调整。随着我国经济水平的提升,会计准则也出现了一些变化。高职院校必须要明确学科发展特征后,更新教学内容。因此,高职院校教师在开展会计教学时,需要对于会计准则的变化进行分析,有针对性的变更教学内容。并且,在教学过程中,也需要将现行会计准则作为依据,组织学生加入到学习中^[3]。除此之外,要将会计准则的最新变化,融入到教学之中,有针对性的进行教学活动,确保学生可以明确最新会计处理方式。只有如此,才能够使学生对于会计工作的账务处理形成更加全面认识。

第二,要加大力度进行实践教学。高职院校在开展会计课程教学时,教学实践有着不容忽视的作用,无论是学生所学习的何种账务处理方式都需要借助于实践来进行证明。因此,通过实践活动,

可以提高学生对于财务处理流程的熟练程度,从而增强学生对于财务知识理解能力。在传统模式下所开展的会计教学,通常会将实践课程统一集中在期末之前,这对于学生而言是非常不利的,很难帮助学生加深对于会计知识的印象。因此,教师应该重新调整开展实践教学的时间,加强教学实践和日常生活的联系,并在每节课中组织学生进行会计实践。这既可以提高学生对于理论知识储备能力,也能够第一时间发现学生所进行的账务处理存在的不足,合理的引导学生。除此之外,教师要根据企业运营环节所开展的业务核算,引导学生开展实践,确保学生可以灵活的填写会计凭证,明确会计核算科目,只有不断的进行实践,才能够推动学生的发展。

第三,更新会计教学观念。高职院校在开展会计教学时,必须要考虑到目前经济发展情况和市场规律,明确对于会计人员的现实需求,改进传统教学模式和教学观念存在的不足,主动创新教学理念,将学生作为教学主体,提高教学质量。因此,高职院校教师需要通过课堂互动等手段提高学生的独立思考,确保学生可以根据所学的知识发现问题,解决问题。在这个过程中,还需要保证学生可以合理的运用互联网资源,这对于增强学生的专业素养是非常关键的。只有为教师和学生提供沟通、交流的机会,才能够使学生主动投入到学习之中,将互联网相关知识和现实生活相关联^[4]。

四、高职院校会计课程教学改革实践

(一) 打造整体实力较强的教师团队

在新时期,高职院校所开展的会计专业教学,效果会被教师的专业水平所影响。因此,高职院校必须要认识到教师水平对于学生发展的关键作用,主动找出会计教学过程中出现的不足,并通过打造整体实力较强的教师队伍来进行改善,为学生提供适宜的学习条件。因此,高职院校必须要将打造整体实力较强的教师队伍作为重要任务,定期或者是不定期的组织专业教师参与学习之中,并确保教师可以通过分析成功的教学案例,灵活应用多种不同教学方式,加强互联网技术和会计教学的联系。在这个过程中,还需要将教师的教学情况作为考核的重要指标,帮助教师达成教学目标。

(二) 加大力度进行校企合作

高职院校在开展会计教学时,需要考虑到时代特征以及企业对于会计人员现实需要,制定出切实可行的会计专业教学目标,确保学生可以合理的应用互联网技术,增强技术素养。在这个过程中,教师可以主动和会计事务所进行合作,帮助学生明确会计工作的流程,并不断的进行熟悉,增强学生实践能力,为学生之后的学习和工作提供良好条件。

(三) 打造线上会计培训平台

在新时期,教师进行会计教学,需要将互联网技术融入其中,进而展现出互联网在会计教学中的优势,确保学生可以通过互联网技术了解到更多现代化会计知识。因此,教师要加大力度应用和管理线上平台,并为学生提供进行模拟试验的机会,为增强学生的专业知识提供良好条件,增强会计教学效果,增强学生的会计素养。

(四) 定期的对于学生进行考核

教师在开展会计教学时,需要对于现有的教学考核体系进行补充、优化,这对于增强学生各方面的能力是非常关键的,能够分析学生的学习情况。因此教师必须要更新落后的教学思维,在对于会计知识进行考核的同时,了解学生的实践能力,确保学生既能够具有丰富的理论知识储备,又能够增强自身专业素养,这对于学生之后的发展是非常关键的^[5]。

(五) 根据市场需求培养会计人才

在新形势下,高职院校想要开展会计教学,就必须要从市场现实情况出发,考虑到新时期发展需求,更新会计工作方式,制定明确的教学目标。在这个过程中,还需要灵活应用多种不同教学方案,为培养高素质的会计人才提供良好条件。

(六) 运用多种不同方式开展会计教学

第一,使用任务教学法。当前,高职院校在开展会计教学时,会先进行基础知识教学,学生具有一定的会计基础。因此,教师在开展教学时,可以合理地应用任务教学法对于学生进行培训。在开

展教学实践时,部分教师要考虑实践所需,加强教学实践和日常教学活动的关联。在开展实践教学之前上传实践资料,并根据学生对于知识的掌握情况,要求学生开展不同实践活动,这能够增强学生对于理论知识理解能力,并且教师也可以及时的对于教学内容进行创新,为学生提供进行学习的机会。因此,使用任务教学法,可以有效提高学生学习热情。

第二,开展情景教学。在进行会计教学时,使用情景教学法,能够营造出适宜的教学范围。因为会计学习内容和现实生活联系较为紧密,具有较强实用性。因此,教师在开展教学时,需要使用情景教学法,要求学生扮演不同的角色。对于账务进行处理。例如,在开展银行类业务教学时,教师可以将学生划分为不同小组,使学生根据教材,对于财务处理流程进行模拟,并进行核算工作。因为会计课程包含诸多和核算相关内容,而情景教学法可以使枯燥乏味的知识更加贴近现实,因此情景教学法可以使课堂氛围更加活跃,提高学生专注程度,改善教学质量。这就要求教师在教学中不断的进行尝试、摸索,并借助于情景教学法,有针对性的帮助学生解决存在的问题,确保学生可以灵活的解读课本知识,获得更好的发展。

第三,对于案例教学法进行应用。会计教学内容和企业现实经济业务关联较为紧密。因此,在进行教学时,教师可以主动的使用案例教学法,组织学生进行学习。在现实教学实践环节,教师可以为学生提供某一公司的财务数据,并鼓励学生使用多种不同类型财务处理方式对财务核算,借助于核算了解现实企业经营水平。学生在结束企业经济业务、核算分析之后,教师要从专业的角度出发,组织学生进行演示,提高学生对于会计核算各阶段的了解程度。这能够有效增强学生的会计水平。因此,在开展会计教学时,教师需要主动应用案例法,通过案例分析增强学生对于知识掌握程度,为学生之后发展提供有利条件。

第四,合理应用信息技术。会计工作对于实践要求较高。在进行会计工作时,要对于多种不同业务凭证进行审核并开展财务处理工作。因此,教师在开展教学时,要认识到信息技术的关键性,使用信息技术录制教学内容,并在教学过程中展现出不同的原始凭证,提高学生对于原始凭证的认知程度,并对于各项流程进行演化^[6]。在会计电算化发展背景下,各项账务处理工作都可以通个会计软件开展,因此,教师在录制课件时,要将会计软件的应用作为关键,细致的进行讲解,确保学生具有应用会计软件的能力。只有如此,才能够使学生更加适应岗位工作,为会计行业的发展提供充足人才储备。

五、总结

根据上文来进行分析,当前高职院校在开展会计教学改革工作时,必须要考虑到时代发展需求,有针对性的运用多种不同教学方式,确保会计教学改革能够与时俱进,将互联网技术融入到教学各环节中,增强学生的专业素养,使学生成为适应岗位需要的会计人才,从某种角度来说,能够推动我国财务行业的发展。

参考文献:

- [1] 熊俊丽,邓小芳.现代学徒制下高职会计专业课程教学改革探析[J].湖北开放职业学院学报,2021,34(19).
 - [2] 董文兵.高职院校管理会计课程教学改革的思考[J].武汉冶金管理干部学院学报,2021,31(01).
 - [3] 王雅婷,陈娟.大数据对高职会计专业财务管理课程教学改革影响探究[J].商业会计,2021(04).
 - [4] 胡爱莉.“互联网+”背景下高职“税务会计”课程教学改革研究[J].柳州职业技术学院学报,2020,20(04).
 - [5] 赵红英,廖明晨.基于成果导向的高职管理会计课程教学改革与实践[J].商业会计,2020(07).
 - [6] 王立栋.试论“互联网+”背景下高职院校财务会计课程教学改革[J].商业会计,2019(35).
- 作者简介:张延泰(1971.11),男,汉,河南省方城县,河南工业职业技术学院,副教授,研究方向:财务会计理论与实务。

5. 《电子商务专业的学科知识体系研究》，移动信息, 2023. 06



移动信息

(YIDONG XINXI)

第 45 卷 第 8 期 2023 年 8 月

目次

网络通信

1 电子通信系统中干扰因素及控制策略的分析	付 珊
4 通信站动力设备及环境集中监控系统技术分析	陈 赫 丁庆明
7 新一代通信导航一体化技术的进展研究	张 超
10 基于物联网的 5G 通信技术的应用分析	许浩敏
13 5G 无线通信技术在城市轨道交通中的应用	黄 剑 姚家甫
16 5G 核心网关键技术的网络切片分析	徐伟光 刘凯旋 胡兆波
19 VSAT 卫星通信技术的应用分析	马小伟
22 OTN 传输网的建设及应用探究	任海洋
25 接入网技术在铁路通信中的应用及发展	谭南方
28 基于光纤通信技术的车载电子通信安全技术研究	史慧玲
31 消防应急通信建设措施的 5G 应用革新	梁 舒
34 窄带无线自组网在应急语音通信中的实践性应用	谢 振
37 基于数据可用性的电力通信系统静态分层建模方法	张 波
40 大数据背景下电子技术在通信工程中的应用	蒋 雷
43 无线通信技术在消防通信系统中的应用	司徒慧卿
46 灾害事故现场的消防通信保障分析	田培冰
49 新形势下网络技术在电力信息通信中的应用	谢继冉 孙汉林 段清天
52 大数据技术在 5G 通信网络中的应用	徐国平 徐 健 周燕飞
55 “5G+工业互联网”的关键技术与发展趋势	莫佑银
58 增强通信质量前提下的通信工程设备抗干扰问题探究	路 剑

信息化建设

60 大数据技术在医疗信息化中的应用探讨	张俊为
63 “互联网+”背景下高校财务管理信息化的研究	林 燕
66 基于深度学习的医疗耗材管理系统研究	冯晓赛
69 提高高职院校计算机信息管理能力的实践探究	郭雨辰
72 大数据视野下医学信息化建设的创新思路	孙 晶
75 智能化工具在医院信息系统运维中的应用研究	周 政

信息化教育

78 基于“互联网+”的“DSP 设计与应用”课程教学改革与探索	朱其刚 张 恒 杨金梁 等
81 微视频在初中信息技术教学中的应用	李 倩
84 “森林生态学”的教学改革研究	李 飞 陈广益
86 关于“C 语言程序设计”课程教学改革的探讨	刘谋龙
89 产教融合背景下大数据应用和创新型人才培养研究	袁 浩 王喜军
92 AMI/HDB3 在位同步实验教学中的探讨与分析	王善斌 贾 鹏
95 基于内容分析法的元宇宙在教育中的应用	王雅琪 王 吉
99 电子商务专业的学科知识体系研究	宋一平
101 职业教育在线精品开放课程的建设与使用研究	蒋 琴 邓 磊
105 基于学堂云平台的微课混合式教学实践研究	张冠兰 谢小刚
108 中职学校学习网站的设计及应用效果研究	程永秀

信息安全

110 物联网计算机网络安全及其远程控制技术研究	李惠娣
--------------------------------	-----

电子商务专业的学科知识体系研究

宋一平

《河南工业职业技术学院 河南 南阳 473000》

摘要 在新时期背景下,电子商务专业学科需要不断优化。电子商务专业在发展过程中,基于各类新媒体技术及创新创业的要求,需要在实际教学过程中不断地更新传统知识体系架构,优化知识体系。文中对电子商务专业的知识体系架构进行了分析,思考了人才培养中面临的问题,探讨了电子商务专业学科知识体系进一步完善的策略,希望能为我国电子商务专业的进步提供一定的参考。

关键词: 电子商务专业;知识体系;学科建设

中图分类号 F713

Research on the Knowledge System of E-commerce Professional Disciplines

SONG Yiping

《Henan Polytechnic Institute, Nanyang, Henan 473000, China》

Abstract In the context of the new era, the discipline of e-commerce majors needs to be continuously optimized. In the process of development of e-commerce majors, based on the requirements of various new media technologies and innovation and entrepreneurship, it is necessary to continuously update the traditional knowledge system and optimize the knowledge system in the actual teaching process. This paper analyzes the knowledge system structure of e-commerce majors, considers the problems faced in talent cultivation, and discusses strategies for further improving the knowledge system of e-commerce majors, hoping to provide some reference for the progress of my China's e-commerce majors.

Keywords E-commerce major, Knowledge system, Discipline construction

0 引言

在新时期背景下,我国市场经济持续发展,电子商务成为重要行业,促进了我国的经济。因此,培育电子商务专业人才培养有着极为重要的意义,需确保人才培养的高质量、高效率。传统的电子商务专业在学科知识体系构建过程中,存在一定的滞后性,在人才培养中面临诸多问题。本文分析了我国电子商务专业教育在实际发展中的具体情况,探究了电子商务专业在培训过程中面临的问题以及问题的成因,提出了电子商务专业学科知识体系的优化策略,希望能使电子商务专业的学科知识体系与新时代的发展标准相符,促使整体教学工作有效培养出高质量人才。

1 高校电子商务专业的发展情况

我国高校电子商务专业在培育过程中主要有3种模式。(1)相关专业会开设电子商务系列课程。(2)在学校教育体系内部,新增电子商务专业。就目前而言,我国相关专业大学会设立电子商务专业及相应的研究方向。而当前,电子商务专业在我国教育专业的建设过程中,发展速度相

对较快。(3)设置电子商务硕士及博士学位,通过开展高学历教育,使电子商务专业在实际发展过程中,能更专业地进行人才培养,有效提升人才培养效果^[1]。

2 我国电子商务人才培养面临的问题

2.1 培养目标与定位模糊

电子商务是一种涉及范围相对宽泛的专业,需要明确人才培养的模式、方向及定位。目前,很多高校在发展过程中,电子商务相关的专业会基于3种差异化的专业背景进行发展。(1)具有技术教育背景的相关院系。相应院系由原有的管理信息系统专业及计算机专业进行延伸,进一步发展为电子商务领域的相关专业。该类专业在实际教学过程中更加注重构建电子商务系统,进行电子商务系统解决方案、安全问题等诸多方面的培训。(2)具有经济贸易教育背景的院系。在实际发展过程中,其由国际经济及国际贸易等专业为基础,进一步转变为电子商务专业,在实际发展过程中,其会更加注重电子商务的网络交易与国际贸易专业知识间高度的相似性,但在实际教学过程中,会进一步加

收稿时间:2023-06-13

作者简介:宋一平(1997—),硕士,助教,研究方向为电子商务。

入电子商务管理知识。(3)具有工商管理教育背景的院系。其主要对学生应用互联网的能力进行培育,提升学生的网上营销及网络管理等能力。

在实际教学计划构建过程中,具备不同背景的院系各有侧重点,同时也会相互模仿,并未体现自身的特色。诸多院校在实际发展过程中,无法更清晰地确定电子商务专业的人才培育方向,提出的培育目标相对较广,涉及的领域相对较多,无法满足当前用人单位对电子商务人才专业化的需求。

2.2 教学计划及课程设置的科学性不强

当前,高校在电子商务专业设置过程中,具有较强的随意性。(1)简单堆砌相关技术及商务层面的课程,无法有效地结合各课程的优势,系统性特征有待提升。(2)理论内容较多,实践内容较少,无法有效提升学生的实务操作能力。

诸多高校的电子商务专业在课程设置过程中,会将其课程设置为20门左右,虽然其主要目的在于使学生接触更多的专业内容,但由于各类课程设置间的关联性差,导致相关课程产生了一定的割裂性,使学生无法系统地学习知识,导致学生很难获得与专业技术要求相符的熟练技术,无法适应用人单位在发展过程中的多样化需求^[2]。另外,在构建电子商务理论体系的过程中,需要进一步完善其理论体系。对电子商务而言,国际层面应用较为广泛,我国企业在实际应用过程中无法深入了解,导致在专业设计过程中,缺失了原则性及目的性。基于学科专业,在选择基础课程及专业课程的过程中,并不存在充分的依据,使教学计划缺失了完整性、系统性,各课程间无法建立必然的联系。

2.3 师资力量弱

我国高校电子商务专业的教师主要来源于经济管理系及计算机系,其自身知识主要来自出版的各类电子商务书籍,其自身研究的深入性、实用性及系统性有待提升^[3]。由于诸多教师不具备电子商务实战的经验,且教师并未参与企业具体的应用、管理过程,导致案例讨论、案例来源、创业指导受到了一定程度的限制。在开展电子商务教学的过程中,出现力不从心的情况。高校电子商务专业教师在实际教学过程中,自身实践能力及理论能力相对薄弱,对电子商务人才的培育产生了负面影响。

2.4 技能培训及实践教学的针对性差

在实际教学电子商务的过程中,学生应具备一定的动手能力及应用能力。就计算机及网络技术、项目管理、网络营销、商务策划等专业而言,需要学生进行大量的手动训练,因此需对实践教学环节进行优化。但目前,部分高校在设置电子商务专业的过程中,学生并未获得较为系统的实践训练机会,高校虽然设置了电子商务实验室,但只能应用相对简单的模拟软件,使学生开展模拟练习。而诸多软件与实际的商业环境并不相符,甚至部分软件在应用过程中已无法满足当前飞速发展的经济环境变化。商务行为存在高度复杂性及多变性,若固化了各类商业行为,则会大大降

低教学工作与书本教育的效果。因此,这类模拟训练很难真正提升学生的实际动手能力^[4]。

2.5 培育目标及市场定位存在模糊性

在电子商务专业的实际教学过程中,人才培养、信息管理与其他管理类专业存在较大的区别,需要明晰培育目标及市场定位。其在定位实际培育目标的过程中,会与其他专业课程的学科内容存在诸多重叠部分,导致人才培养目标不清晰,无法针对当前市场的实际情况进行有效的市场定位,导致教学工作受到严重的影响。

3 电子商务专业学科知识体系的优化策略

3.1 优化思路

基于上述问题,在电子商务人才的培育过程中,当前高校培养的电子商务人才很难适应当前社会的飞速发展。同时,无法满足当前社会在发展过程中对电子商务专业人才的要求,导致电子商务专业毕业生的就业率低。在后续发展过程中,我国电子商业人才会存在更多的缺口。目前,部分高校及各类培训机构每年收入的人才数量相对较少,这导致市场对电子商务人才存在更多的需求。但是,各高校培育的电子商务人才无法适应实际的市场要求,其市场竞争力相对较弱,由此产生了人才供需矛盾,导致供需脱节等矛盾,使得电子商务教育在实际发展过程中受到了一定的制约。如何摆脱这种困境,是后续电子商务专业在学科知识体系构建过程中需要研究的重要问题,进一步促使电子商务人才培育工作做到供需平衡,形成良性循环,确保电子商务教育工作有效解决各类风险问题。

3.2 具体的应对策略

3.2.1 明确专业定位

电子商务具有一定的交叉性及复合性,就专业学科而言,其实践及理论研究还处于探索阶段。许多企业在发展过程中,无法有效地明确对电子商务岗位的需求,高校对该专业的定位及相应的教学方向也存在一定的模糊性。因此,电子商务专业在实际教学过程中,需要细分专业内容,确保此类大而广的专业具备更为明确的发展方向,提升学生的核心竞争优势。高校应根据当前市场的实际要求,进一步对教学内容进行细化,不断完善教学步骤及环节^[5]。

3.2.2 明确培育目标

各院校在发展过程中,需要依托当前市场存在的各类需求以及学校在发展过程中的具体情况,在全面介绍电子商务相关知识的过程中,有效应对各差异化的培养重点。

3.2.3 课程设置需要具备高度的合理性

电子商务专业在发展过程中,会涉及诸多学科,可将其视作综合性较强的专业。在理论课程的设计中,需要进一步坚持理论与实际结合的原则。在该层面上,存在两重含义。(1)需要适当的深度,满足实际应用的各类需求。(2)需要保证其广度,有效覆盖电子商务相关岗位的理论知识及宽度。

3.2.4 有效落实实践环节

在各院校的发展过程中,需不断优化电子商务实践教学体系。基于实际使用实践的重要原则,有效摆脱传统学科教育存在的疏忽,充分结合电子商务专业的创新型特点,应用互联网资源,积极与企业进行合作、沟通,打造各类开放性平台,打通学生与企业间的沟通渠道,尽早使学生接触到更加真实的商务活动,构建学校及企业间的长期合作,以相互支持的方式,创设产、学、研一体化环境。

3.2.5 构建零试周期的新型教学理念

在电子商务专业理论课程体系构建过程中,其实际指导思想在于“宽基础,大专业”。实践课程体系在构建过程中的具体特点在于“小方向,重特色”。基于相对宽泛的理论背景,需要依照企业在发展过程中对电子商务人才的各种需求,做到“抓重点,出特色”,讲求时效性,进一步增强学生的技术应用能力,培育专业技术过硬的人才。在构建理论课程体系的过程中,需进一步提升理论精度。在此基础上,需要延伸各个专业方向,使学生能真正做到熟能生巧,学以致用。对学生的专业核心能力进行有效的提升,增强学生的综合竞争能力,以实践教学体系来提升学生能力,使相应的人才满足企业岗位的多样化需求,实现零试周期,毕业即就业。

3.2.6 强化师资力量

教师是教学实施过程中的重要部分,其自身的综合素质会在一定程度上影响课程目标的实现。要有效优化电子商务专业,一方面,需要构建出技术过硬的优质师资队伍。电子商务由多学科交叉而成,在构建电子商务专业的过程中,需要进一步优化教师自身的知识结构。因此,师资培训工作需要具备一定的超前性,有效结合商务理论、信息技术及实践能力,培养具有高度复合能力的优质人才。师资队伍

建设可以通过商务实践以及科研教学等诸多活动,进一步提升教师的电子商务知识,提高其对电子商务学科的驾驭能力,使其能胜任多样化的人才培育任务。另一方面,需要使教师参与企业的发展过程,增加教师的实践经验,以丰富的案例对学生的实践进行指导,进一步提升学生的实践能力,进一步强化与企业之间的联系,有效地提升该学科的核心竞争能力。

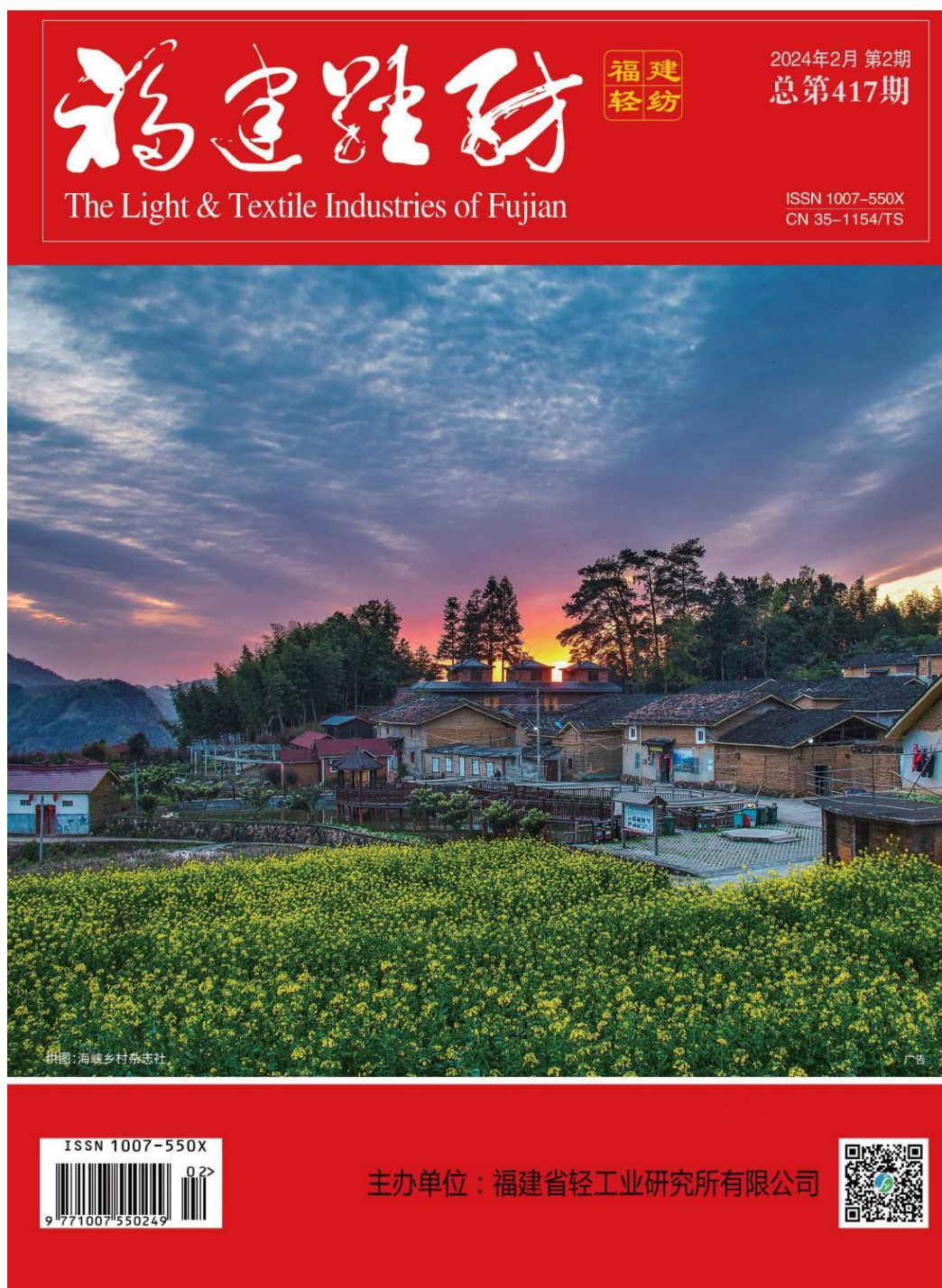
4 结语

在新时期背景下,电子商务专业学科知识体系需要不断的完善。在教学过程中,需要对教学思路进行优化,针对当前存在的各类问题对教学工作进行创新,提升教学工作的完善性,从诸多角度满足新时期对电子商务专业提出的多样化要求。

参考文献

- [1] 胡传迅.五年制高职电子商务专业“1+X”证书制度实践研究[J].对外经贸,2023(2):120-123.
- [2] 肖煌华.“双高计划”下高职院校电子商务专业群社会服务能力提升路径探究——以泸州职业技术学院为例[J].投资与创业,2022,33(24):136-138.
- [3] 秦丽.民办高校课程思政与专业思政改革研究——以电子商务专业为例[J].现代商贸工业,2023,44(2):247-250.
- [4] 王逸飞.电子商务专业《博弈论及竞争战略》课程教学创新探索[J].农场经济管理,2022(12):47-50.
- [5] 林禄苑,王子飞,庞宇.职业本科理实一体实验实训基地建设路径研究——以广东工商职业技术大学电子商务专业为例[J].太原城市职业技术学院学报,2022(11):112-115.

6. 《高校电商教学改革对学生创新创业能力的影响研究》，福建轻纺, 2024. 02





2024年2月 第2期
月刊 (总第417期)
(1988年创刊)

主管单位

福建省轻纺(控股)有限责任公司

主办单位

福建省轻工业研究所有限公司

合办单位

福建省金皇环保科技有限公司

福建师范大学环境与资源学院、碳中和现代产业学院

福建省环境保护产业协会

福建省环境科学学会

福州市环境科学学会

厦门市环境科学学会

漳州市环境科学学会

三明市环境保护产业协会

莆田市环境科学学会

南平市环境保护产业协会

宁德市环境科学学会

发行:福建省报刊发行局

发行范围:国内外公开发行

国内订阅:全国各地邮电局(所)

邮发代号:34-79

定价:25.00元/册

国际标准连续出版物号:ISSN 1007-550X

国内统一连续出版物号:CN 35-1154/TS

广告发布登记号:台广[2020]350103202000002

印刷单位:福州华厦彩印有限公司

地址:福州市新店镇义井工业区6#楼

CONTENTS 目录

39 冷链食品行业发展现状及建议

/ 柯振华, 王天西, 许晖, 何孟杭, 黄彬红, 何芸, 李晨熙, 任小英,
李颖, 邱秀玉, 江凤玲, 谢勇, 高宇

42 三叶青的化学成分及药理作用的研究进展

/ 张晓雄, 邱楠, 林彤, 黄争荣, 李达谅

48 极端微生物及其应用研究进展

/ 李沛霖, 李力

经营管理

55 基于ISM-MICMAC模型的制鞋厂火灾影响因素分析

/ 刘晓霞

教学园地

59 基于产教融合的产业学院纺织服装类人才培养研究

——以时尚产业学院为例

/ 王培松, 李燕

63 检验检测人才的中高本衔接培养: 内涵、困境与路径

/ 蔡真珍, 林娇芬, 陈峰, 曾健, 郭团玉

68 高校电商教学改革对学生创新创业能力的影响研究

/ 张超, 张弘

72 “三教”协同教学模式下的数字乡村教材建设: 会计专业的视角

/ 李拔群

76 计算机类专升本学生人才培养对策研究

/ 龚莉书

79 新文科背景下设计学科“四位一体”人才培养模式研究

/ 林燕

84 服务育人视角下“一站式”退役大学生服务中心的实践探索

/ 李腾

广告目录

广告(封面、封三、封底)

为扩大本刊及作者知识信息交流渠道, 加强知识信息推广力度, 本刊已许可中国知网、万方数据、维普网等信息机构, 以数字化方式复制、汇编、发行、信息网络传播本刊全文。该著作权使用费及相关稿酬, 本刊均用作作者文章发表、出版、推广交流(含信息网络)以及赠送样刊之用途, 即不再另行向作者支付。凡作者向本刊提交文章发表之行为即视为同意我社上述声明。

高校电商教学改革对学生创新创业能力的影响研究

张超, 张弘

(南阳农业职业学院, 河南 南阳 473000)

摘要: 为研究高校电商教学改革对学生创新创业能力的影响, 文章采用对照实验的方法, 通过受试者选择和实验组对照组教学设计, 收集相关数据进行研究。结果表明, 经过电商教学改革, 学生的创新创业能力得到显著提高, 包括创意思维、市场洞察、风险管理和团队协作。据此, 文章建议高校继续推进电商教学改革, 注重培养学生的实际创业技能, 以适应现代创新型经济的需求。

关键词: 高校教育; 电商教学改革; 创新创业能力; 对照实验

Doi: 10.3969/j.issn.1007-550X.2024.02.0014

中图分类号: G712 文献标识码: A 文章编号: 1007-550X (2024) 02-0068-04

0 引言

现代社会日益强调创新创业能力的培养, 这对高校教育提出了新的挑战, 同时也给予了机遇。电子商务 (电商) 作为创新型经济的代表, 为高校提供了重要的培养创新创业能力的平台。电商行业蓬勃发展, 培养具备电商实践技能的学生对于适应现代创新型经济的需求至关重要。本研究以X高校为例, 通过实施对照实验的方法, 探讨电子商务教学改革对学生创新创业能力培养的具体影响, 为高校提供有益的教育改革经验, 并为创新创业人才的培养提供支持。

1 研究方法与设计

1.1 研究方法

本研究采用了对照实验法, 旨在系统性地研究高校电商教学改革对学生创新创业能力的影响。在X高校的电子商务专业中, 笔者设置了实验组和对照组, 通过对这两组学生进行不同的教学设计, 探究教育改革的具体效果。实验组接受了经过改革的电

商教学, 注重实践性教学、团队项目和市场模拟等创新教育方法。对照组则继续采用传统的教学方式。这一设计有助于比较两种不同教育方法对学生创新创业能力的影响。教学周期设为6周, 以确保有足够的时间来观察和评估学生的进步。通过对实验组和对照组的学生进行相同的创新创业能力测试, 我们收集了相关数据以进行后续分析。这一研究方法的优势在于其控制了其他干扰因素, 使我们能够更准确地评估电商教学改革对学生创新创业能力的影响。

1.2 受试者选择

本研究的受试者选择基于X高校电子商务专业2022级的2个班级学生。在征得2个班级学生的同意后, 我们采用了抽签的方式来确定实验组和对照组的分配。最终, 实验组共计40人, 对照组也有40人。实验组和对照组的学生性别分布相对均衡, 实验组中男生占17人, 女生占23人, 而对照组中男生15人, 女生25人。此外, 平均年龄也非常接近, 实验组的平均年龄为20.3岁, 对照组的平均年龄为20.4岁。

收稿日期: 2023-10-23

作者简介: 张超 (1984—), 河南南阳人, 副教授, 研究方向为电子商务、工商管理。

张弘 (1968—), 河南南阳人, 教授, 研究方向为职业教育教学及管理。

68《福建轻纺》

实验组和对照组之间在年龄无差别。这种受试者选择的方式有助于确保实验组和对照组之间的初步平衡,以减少性别和年龄等因素对研究结果的潜在影响。通过这一受试者选择方式,我们能够在实验组和对照组之间建立比较可靠的基线,以便更准确地评估电商教学改革对学生创新创业能力的影响。这将有助于确保研究的内在有效性,并更全面地理解电商教育改革的实际效果。

1.3 实验组对照组教学设计

实验组和对照组的教学设计在本研究中发挥了关键作用,以探究高校电商教学改革对学生创新创业能力的影响。以下将详细介绍实验组和对照组的教学设计。

1.3.1 实验组教学设计

实验组采用了“赛教”(Simulation-Based Learning and Innovative Education)融合的理念,结合了模拟教育和创新教育的元素,该教学设计主要包括以下几个方面的内容。

(1) 创新模拟项目:实验组的学生参与了模拟电商创业项目,他们被要求在小组中提出并执行创新创业计划。这有助于培养他们的创新思维和实际创业技能。

(2) 市场模拟:学生在模拟市场环境中进行营销和销售活动,从而培养市场洞察力和销售技巧^[1]。

(3) 团队协作:实验组的教学注重团队协作,鼓励学生共同解决问题,提高团队合作和沟通技能。

(4) 电商实践:学生有机会在真实的电商平台上运营店铺,学习电商的具体操作和管理技能。

1.3.2 对照组教学设计

对照组采用了传统的教学模式,包括课堂讲解、教材阅读和个人作业。这种教学模式相对较为传统,侧重于知识传授,而较少涉及实际创业和模拟项目。在实验期间,对照组的学生接受了与实验组相同的课程内容,但没有参与到模拟项目、市场模拟和团队协作等实践活动中。

1.3.3 教学时长

实验组和对照组的教学周期为6周,每周安排相

同数量的教学时间。这个时期足够长,以允许学生充分参与和体验课程内容,同时也有足够的时间来观察他们的进步和变化。通过这种不同的教学设计,我们能够比较实验组和对照组在创新创业能力培养方面的差异。实验组的学生参与了更多的实际创业和模拟项目,这有望在创新思维、市场洞察、风险管理和团队协作等方面取得更显著的进步。而对照组的学生则主要接受传统的知识传授教育,可能在这些创业能力方面进展较慢^[2]。这一差异化的教学设计为我们提供了更全面的数据,以评估电商教学改革对学生创新创业能力的影响。这将有助于我们得出更有力的结论和建议,从而为高校教育改革提供实际支持。

1.4 评价指标与权重设计

本研究的评价指标与权重设计如下:

创意思维(权重30%)——评估学生的创造性思维和创新能力,包括他们提出的创业点子的独特性和创新性。

市场洞察(权重25%)——测量学生对市场趋势和消费者需求的理解,以及他们在模拟市场中的表现。

风险管理(权重20%)——评估学生对商业风险的识别和管理能力,包括在模拟项目中如何处理风险和挑战。

团队协作(权重25%)——考查学生在小组项目中的合作、沟通和领导技能,以及他们是否能够有效地与他人合作实现共同目标。

2 学生创新创业能力的测量结果

2.1 数据收集过程

数据收集过程在本研究中扮演了至关重要的角色,它旨在测量学生创新创业能力的变化以及电商教学改革的具体影响。

前测:在实验组和对照组开始教学之前,我们进行了初始测量,以获得学生在创新创业能力方面的基线数据。这包括对每个评价指标的评分,如创意思维、市场洞察、风险管理和团队协作。前测的目的是确保实验组和对照组在教学开始前是相似的。

教学期间观察:在实验组的教学过程中,研究

人员对学生的参与、表现和进步进行了持续观察。这包括模拟项目的执行情况、团队合作的表现、市场模拟结果等。这些观察有助于了解实验组的学生如何应用他们在课堂上学到的知识和技能^[3]。

后测: 在实验组和对照组完成教学后, 我们进行了后测, 以再次评估他们的创新创业能力。与前测相似, 后测包括对每个评价指标的评分, 以确定在教学结束后的改进情况。

2.2 结果分析

2.2.1 前测结果

经过前测, 在实验开始之前, 实验组和对照组的差异不显著。关于电商行业认知, 实验组和对照组的平均分分别为6.3和6.4分, P 值大于0.05; 创业风险认知方面, 实验组的平均分为6.8, 对照组为6.9, 同样 P 值大于0.05, 表明2组学生对创业风险的认知水平也没有显著不同; 在创业计划制定能力和创业计划执行能力方面, 实验组的平均分分别为7.2和6.5, 对照组为7.3和6.6, 同样 P 值大于0.05, 表明在这2个关键方面, 实验组和对照组的平均水平也没有明显的差异。

2.2.2 后测结果

经过一学期的电商教学改革后, 我们再次对学生的创新创业能力进行了测试。这次测试显示, 学生的创新创业能力有了显著提高。在电商行业认知方面, 实验组的平均分为8.4, 明显高于对照组的6.8, P 值小于0.05, 表明经过教学改革后, 实验组学生的电商行业认知水平显著提高。创业风险认知方面, 实验组的平均分为9.1, 对照组为8.2, 同样 P 值小于0.05, 表明实验组学生在创业风险认知方面的提升也显著。在创业计划制定能力和创业计划执行能力方面, 实验组的平均分分别为8.9和8.8, 对照组为7.6和6.9, P 值分别小于0.01和0.05, 表明经过教学改革后, 实验组在这2个关键方面的能力显著增强。

2.3 结果与讨论

上述研究表明, 高校电商教学改革对学生的创新创业能力具有积极的影响。首先, 教学改革

的方式, 如项目式学习、案例分析、团队合作等, 有利于激发学生的创新思维和解决问题的能力^[4]。同时, 改革后的课程内容更注重实践操作, 使学生能够在实际操作中锻炼创业技能, 提高创业信心。此外, 改革后的教学评价方式也更加注重学生的实践成果和创新能力, 这也有助于提高学生的创新创业能力。

然而, 这种差异的原因涉及多个方面。首先, 实验组学生可能更适应新的教学方式, 更愿意参与课堂讨论和实践活动, 这有助于他们发挥创新思维和解决问题的能力^[5]。其次, 实验组学生可能更注重实践操作, 他们在实践中积累的经验和技能更有利于提高创业技能和信心。此外, 实验组可能更有机会参与到真实的电商项目中去, 这种真实的项目实践对于提高学生的创新创业能力有显著影响。

3 结论与建议

3.1 结论

实验组和对照组在改革前, 创新创业能力基本相当。然而, 在改革实施后, 实验组学生相较于对照组学生在创新能力、创业技能和解决问题的能力上表现出了明显的提升。具体来说, 实验组学生在课程设计、产品推广、供应链管理、营销策略等方面的能力都有了显著提高。而对照组学生在改革实施后的效果则相对较弱。

3.2 建议

(1) 高校应注重实践教学。电商是一个实践性很强的领域, 理论知识的学习需要与实际操作相结合。高校可以与企业合作, 为学生提供实际项目的机会, 让他们在真实的商业环境中学习和实践, 从而培养实际操作的能力。

(2) 鼓励学生参与创新竞赛。高校可以组织电商创新竞赛, 鼓励学生提出创新创业项目, 并提供支持和奖励机制, 以激发学生的创新潜力和竞争意识。

(3) 高校应与电商行业保持密切联系, 及时调整教学内容和方法, 以适应行业的发展变化。这有助于确保学生获得最新的知识和技能, 增强他们的竞争力。

参考文献:

- [1] 石玺. 基于电子商务专业的创新创业教育模式构建研究[J]. 创新创业理论与实践, 2023, 6(03): 80-83.
- [2] 刘晓军. 赛教深度融合的高水平电子商务专业教学改革创新与实践[J]. 湖北开放职业学院学报, 2022, 35(12): 1-3.
- [3] 闫琴. 基于创新创业导向的跨境电商实务课程教学改革与探索——以硅湖职业技术学院为例[J]. 科技视界, 2022(18): 156-158.
- [4] 罗薇, 陈唯, 邓敏慧. “互联网+”视域下高校电商双创型人才培养模式研究[J]. 现代商贸工业, 2022, 43(04): 62-64.
- [5] 姚丹. 基于“创新创业”能力培养的跨境电商课程混合式教学改革与实践——以湖北文理学院理工学院为例[J]. 营销界, 2020(08): 77-78.

(上接第58页)

安全管理 S_{12} 、应急预案及应急处置 S_{13} 、日常巡查检查 S_{14} 、隐患整改情况 S_{15} 。

(2) 运用ISM模型将15个主要影响因素进行层次划分, 得到3阶6层多级递阶结构图。其中: L_1 、 L_2 为表层, L_3 、 L_4 为中间层, L_5 、 L_6 为深层。由多层递阶结构图可知, 位于底层的消防安全意识 S_1 、安全培训情况 S_3 是引起制鞋厂火灾事故发生的深层根本原因, 需要重点关注。

(3) 运用MICMAC模型按驱动力和依赖性将制鞋

厂火灾影响因素分为自治集群、依赖集群和独立集群3类。其中, 消防安全意识 S_1 和安全培训情况 S_3 具有较强的驱动力和较弱的依赖性, 很难依赖其他因素, 因此企业定期开展安全教育培训, 增强员工安全意识, 减少不必要的不安全行为。应急预案及应急处置 S_{13} 具有较强的依赖性和较低的驱动力, 说明该因素的解决依赖于其他因素的解决, 比如可以通过安全教育培训、配备完好的消防设施和建筑防火设计等提高企业应急预案及应急处置能力。

参考文献:

- [1] 王莉叶. 国货崛起背景下鞋类产业转型升级发展策略研究[J]. 鞋类工艺与设计, 2022, 2(13): 18-20.
- [2] 罗媛媛, 蔡白雪, 黄瀚瑶, 等. 制鞋企业火灾安全隐患分析及应对策略[J]. 皮革科学与工程, 2022, 32(3): 105-108.
- [3] 石洪涛. 劳动密集型制衣、制鞋厂火灾危险性及其预防措施[J]. 中国科技信息, 2011(14): 162-163.
- [4] 倪旭萍, 蓝美娟. 温州市制鞋厂火灾隐患及其预防措施[J]. 黑龙江科技信息, 2017(11): 56.
- [5] RICHARD H W. Interpretive structural modeling: a useful tool for technology assessment? [J]. Technological Forecasting and Social Change, 1978, 11(2): 165-185.
- [6] 李明柱, 王文东, 张智超. 基于ISM与MICMAC的建筑施工风险因素研究[J]. 安全与环境学报, 2022, 22(1): 22-28.
- [7] RIZVI N U, KASHIRAMKA S, SINGH S, et al. A hierarchical model of the determinants of non-performing assets in banks: an ISM and MICMAC approach [J]. Applied Economics, 2019, 51(35): 3834-3854.
- [8] KUMAR H, SINGH M K, GUPTA M P. A policy framework for city eligibility analysis: TISM and fuzzy MICMAC-weighted approach to select a city for smart city transformation in India [J]. Land use policy, 2019, 82: 375-390.
- [9] 阳富强, 蔡逸伦, 宋雨泽. 基于ISM和ANP的高校实验室消防安全管理[J]. 实验室研究与探索, 2019, 38(7): 280-284.
- [10] 赵庆华, 张琳, 曹庆. 基于ISM-MICMAC的建筑坍塌事故成因分析[J]. 项目管理技术, 2022, 20(5): 39-44.
- [11] 罗益佳, 周典, 田帝, 等. 基于ISM和MICMAC模型的远程医疗实施影响因素分析[J]. 医学与社会, 2021, 34(4): 61-66.
- [12] 王景荣, 崔伟芳, 王灿友. 基于TISM模型与MICMAC分析的医养结合服务供给影响因素研究[J]. 中国卫生事业管理, 2022, 39(9): 712-716.

7. 《基于真实工作过程的跨境电子商务课程改革研究》，中国教育技术装备，2021.11

CETE

中国教育技术装备

China Educational Technology & Equipment

蓝鸽集团
Lancoo Group

蓝鸽科技

成立27年，为1000+学校提供AI智慧教育方案

ISSN 1671-489X

21

总第519期
2021年11月上

国内邮发代号：5549 1821-489X
国内统一刊号：CN 11-4754/T
国内邮发代号：82-975

- 基于慕课的学校信息化自主建设路径探究
- 线圈在磁场中切割磁感线的装置制作与应用
- 推进实验教学的数字化改造落实教育新基建要求
- 以产业教授为媒的产教融合实践教学基地建设与实践

CETE

中国教育技术装备

China Educational Technology & Equipment
Zhongguo Jiaoyu Jishu Zhuangbei



1987年创刊(半月刊)
2021年11月上 第21期 总第519期
主管单位: 中华人民共和国教育部
主办单位: 中国教育装备行业协会
编辑出版: 《中国教育技术装备》杂志社
社长、主编: 王双全
副社长、副主编: 赵晓宁
副主编: 薛冀
编辑部主任: 杨永坤
责任编辑: 李丽 宋利云 王磊
网络编辑: 杨洋
广告部: 冯俊霞 发行部: 魏宁
网址: <http://www.cete1987.com>
地址: 北京市海淀区中关村南大街34号中关村
科技发展大厦C座1002室
邮编: 100081
投稿邮箱: cete1987vip@vip.163.com
编辑部电话: 010-62112678(稿件查询)
广告部电话: 010-62112651
发行部电话: 010-62112663
邮发代号: 82-975 订购: 全国各地邮局
广告合作: 北京华夏九鼎文化传媒有限公司
国际标准连续出版物号: ISSN 1671-489X
国内统一连续出版物号: CN 11-4754/T
设计制作与印刷: 廊坊市翰墨印刷有限公司
国内定价: 14元/期(RMB)
国外定价: 14元/期(USD)
出版日期: 每月10日、25日
版权所有 翻印必究



目次

CONTENTS

「装备视窗」

- 1 第80届中国教育装备展示会在成都盛大开幕
- 2 第80届中国教育装备展示会团长会在成都召开
- 3 全国生态健康校园建设高峰论坛在成都举行
- 3 中小学劳动教育与综合实践发展论坛在成都举办
- 4 第二届“东方欲晓”实验教学创新论坛在成都举办
- 4 新时代全国学校卫生与健康教育峰会在成都召开
- 5 第80届中国教育装备展示会召开新产品新技术新成果发布会
- 5 中国教育装备行业协会综合实践与劳动教育基地(营地)工作委员会成立大会在成都举办
- 6 新基建 新装备 数据赋能教育创新
——第二届教育装备学术大会在成都召开
- 6 2021书香校园之好书伴我行分享论坛在成都举办
- 7 第二届教育装备学术大会成都共识
- 7 首届中小学实验教学教学工作创新论坛在成都举行
- 8 首届未来教育装备创新发展大会暨“全球视野下的教育新基建”高峰论坛在成都成功举办
- 8 首届“艺教工程”暨全国少年儿童美育教育高峰论坛在成都召开

「装备在线」

- 9 云桌面助力瑞安市教育信息一体化应用案例 黄成涛 苏立昆 吴建彬

「理论研究」

- 12 基于需求理论的气象援外培训主题选择研究 李攀
- 15 社区教育在公共服务功能发挥中存在的问题及对策浅探 王廷
- 18 疫情期间高校完全线上教学模式研究
张淑丽 张涛 崔岩 李青 黄烨 闫鹏宇
- 20 基于慕课的学校信息化自主建设路径探究 王伟 王清

「装备管理」

- ☆工作研讨
- 22 校园无线网络使用中的问题及对策研究
——以河北省为例
郝晨汝 程莉 李梅洁 郭丽莎 池子强 乔丽华 王安琪 李静
- ☆师资·培训
- 25 基层部队教员向院校教员转型的几点思考
汪余博 苏洪波 戴京涛 夏毅锐
- 27 解析高等院校青年教师职业发展现状
吴大勇 苏强 康杰 王倩 董会斌
- 29 中小学信息技术优质课例参评的优胜策略 候继仓
- 31 信息技术支持下农村小规模学校教师专业发展策略研究 张兴武

「技术在线」

- ☆应用技术
- 33 基于图形化编程技术的课件设计与制作 温倩楠 张秀琦

基于真实工作过程的跨境电子商务课程改革研究*

◆卢秋萍

摘 要 基于真实工作过程的跨境电子商务课程改革研究是创办真实电子商务公司,让学生做真实业务,通过基于工作过程的岗位轮训,把企业运营融入到课程改革中。在跨境电子商务理论教学时可进行多个平台综合讲解,在实践教学时可让学生以轮训的形式在不同平台上做业务。学生可以分组、分角色参与不同平台业务,把课程教学过程与企业跨境电子商务岗位真实工作过程结合起来,真正体现高职应用型人才培养的实质。

关键词 跨境电子商务;课程改革;人才培养

中图分类号 G642.0

文献标识码 B

文章编号 1671-489X(2021)21-0090-03

0 引言

跨境电子商务主要面向开展跨境电商业务的进出口公司、外向型生产企业、国际物流企业和其他企事业单位,在外贸和跨境电商岗位群,从事跨境物流、跨境店铺运营、客户服务、外贸跟单、报关报检等工作。它的实践操作性和应用性很强。近年来,随着电商渗透率提升和传统外贸转型加速,跨境电子商务出现爆发性增长,尤其是疫情爆发后,跨境电商飞速发展,成为稳外贸的重要力量。跨境电商正处于发展的黄金时期,但是企业对于跨境电子商务人才需求与高校跨境电商人才培养质量出现较大偏差。在实际课程教学中要重视理论基础教育与实践操作教学的有机结合,通过基于工作过程的岗位轮训,把企业运营融入到课程改革中,可结合不断涌现的新的跨境电商平台和新的跨境营销模式,对跨境电商课程教学不断创新,切实凸显高职应用型人才培养的实质。

1 研究意义

目前研究跨境电子商务人才培养方面的相关课题较多,学者多集中在跨境电商课程体系或人才培养模式方面的研究,部分研究则集中于跨境电商其它相关课程的研究。少有基于真实工作过程的跨境电子商务课程改革研究。人才是行业腾飞的重要支撑,伴随跨境电商的蓬勃发展,跨境电商人才的供求失衡问题日益凸显。很多高校都建立

了专门的实训室,并采购了模拟操作软件,可供上机模拟整个交易流程。但软件的虚拟性和封闭性导致实训流程所依托的交易情境过于简化,模拟软件的呆板性使实训的过程类似游戏,学生按软件设定的程序即可走完业务流程。而且,在封闭的软件环境中,由参与课程的学生人数来模拟市场规模,无法与现实市场条件下复杂、多变的商业世界发生真实互动,学生无法产生真实的交易体验,因而无法学到真正的操作技能。尤其是跨境电商平台的多样性和规则的复杂性,一款软件只能模拟一个跨境电商平台,局限性较强。学生所学的知识往往与企业实际经营情况脱节,因此不能很好地满足企业对跨境电商人才的需要。基于真实工作过程的跨境电子商务课程改革,缩短了专业技能培养与岗位技能需求的距离,探析跨境电商人才培养的新路径,对未来跨境电商人才培养有重要意义。

2 当前跨境电子商务课程教学面临的问题

2.1 企业跨境电商人才紧缺

据调查,跨境电商企业最紧缺的岗位是运营推广,这就需要学生掌握跨境电商平台的站内推广与站外推广技巧,能够在有限的资本条件下通过站内和站外推广获得流量,提高转化率。但是运营推广类岗位所需的推广技能具有难学更难测的特点。要训练推广技能,首先要解决推广资金的问题,其次要对推广结果有一个直观的效果展示。同时,难测的特点给企业招聘带来了巨大的困难,企业无法判断应聘人员是否真正掌握推广技能。这在一定程度上制约了跨境电商的发展。

2.2 人才培养高度依赖社会教育力量

由于跨境电商是新兴学科,变化快,技能考核标准、动手操作能力要求高,要求学生毕业就能上岗。而学校偏重理论的教育方式在实践教育方面达不到市场需要。我国跨境电商人才的培养很大程度上仍需依赖社会力量,如阿里巴巴集团的“百城千校”培训、1+X证书培训及eBay的“E青春计划”等。由于社会对电子商务人才需求量大,特别是国家出台政策大力扶持跨境电商发展后,

*项目来源:河南省教育厅河南省教育科学“十三五”规划2019年度一般课题项目“基于真实工作过程的高校跨境电商课程改革研究”(课题编号:[2019]-JKGHYB-0455)。

作者:卢秋萍,河南工业职业技术学院,副教授,主要研究方向为跨境电商、网络营销(473000)。

跨境电商教学机构以及企业大学等培训机构不断涌现,高校由于没有真实公司,无法运用真实账号进行跨境电商运营实践,使得高校教学在跨境电商技能教学中未能发挥应有的主阵地作用。

2.3 没有真实跨境电商操作平台,教师教学受限

由于高校限于场地、管理等要求,校企合作要求较高,企业很难进驻学校。高校教师从学校毕业后,大多直接进入高校教学,很难有跨境电商实践机会,因此教师教学过程中由于缺少实践工作经验,没有跨境电商实操平台账号,在课程教学中只能停留在理论教学层面,实践教学也只能停留在模拟软件操作层面。没有真实平台供操作,教师的实践教学缺乏载体,很难教授学生实际平台操作技能。

2.4 跨境电商实践教材缺乏

跨境电商课程是近年来的新兴专业和新开课程,2020年才被教育部列为高职新专业。在实际教学过程中,与高等职业院校相匹配的教材仍以理论讲解为主,实训教材缺乏,有些实训教材及模拟软件仅针对单一跨境电商平台如速卖通的讲解。教材的实用性、广泛性不足,不能全面讲解多平台实战操作,这和当前跨境电商的真实市场环境不相匹配。

2.5 校企合作深度不够,学生实践环节欠缺

随着主流跨境电商平台入驻门槛提高,院校无法为学生提供大量账号进行平台训练,学生在校期间没有合适的产品,学生没有店铺,无法熟练掌握平台操作流程与规则,流量获取成本逐渐增高,院校无法为学生提供足够的推广资金,也无法对推广结果进行量化考核。部分有社会资源的教师采用友好企业账号进行示范讲解,没有资源的教师只能用模拟软件让学生掌握跨境电商大概的业务流程。在此情况下,培养出来的学生只简单的知道操作的模块,纸上谈兵,连某些平台规则和基本运营都不会,缺乏实践能力。

3 基于真实工作过程的跨境电子商务课程改革理论依据

3.1 基于工作过程的教学是职业教育的特点

基于工作过程的教学是一种具体的课程模式,根据姜大源在《论高等职业教育课程的系统化设计——关于工作过程系统化课程开发的解读》中的论述:“工作过程系统化课程是以过程性知识为主的高等职业教育课程内容化的参照系。以工作过程作为课程设计的参照系,更符合职业教育的特点。”^[1]以跨境电商课程为例,课程涉及店铺注册与选品、上架商品、运费和物流设置、营销、客户服务等,而这些都是一个个碎片化的知识,课程每个章节的内容好比一颗颗散乱的珍珠,只有基于真实工作过程的课程才能把这些“珍珠”串成“项链”放入场景应用,这是职业教育培养高素质技能型人才的特点。

3.2 课程改革优于专业课程体系建设

因为专业课程体系是基于某专业所具备的其它专业所

不具备的综合知识的构建,是一种知识的堆积。而姜大源关于工作过程系统化的结构逻辑之一:应用性诉求强调“课程不再是搭建一个存储知识的仓库,而是构建一种应用知识的过程。”^[2]姜大源认为改革开放以来我国职业教育课程改革取得了模块化、项目化改革和工作过程系统化课程改革等成绩,特别是工作过程系统化改革解决了从经验层面的技能上升到策略层面的技能培养问题,凸显了职业教育课程改革的取向。所以,课程始终是教育的核心,教师和硬件建设等也要围绕着课程,课程改革要优于专业课程体系建设。

4 基于真实工作过程的跨境电子商务课程改革措施

4.1 创新课程教学模式

实现跨境电商校内实训的教学模式改革,通过“双导师制”实施对学生基于工作过程的项目化教学,较好地培养学生的创新思维,实现“教、学、做”一体化的教学目标。授课采用校企合作共同开发课程,提供真实工作岗位,打造与企业需求高度匹配的课程,可实现学生与企业零距离就业。教学模式采用公司制,引入企业真实环境,学生3~5人为一个商业团队,每个团队安排一名指导教师,进行真实的跨境电商运营。学生在校期间,拥有自己的跨境电商实战中心,拥有真实的跨境电商运营账号,打造上课即上班、上班即上课的教学模式。以全方位的企业跨境电商项目实战体验、全流程的公司化运作、规范的实操操作引领跨境电商电子商务教学模式改革。

4.2 把企业真实运营融入课程实训,实现基于真实工作过程的课程改革

利用校企合作企业在校内创办真实跨境电商公司、开设跨境电商平台业务,让学生做真实业务,把企业运营融入到课程中。在学生开课之初进行理论教学,占总学时的1/3,剩余2/3的时间由教师或学长带领学生开展跨境电商业务。每一届学生在理论课程结束后,可随着老一届学生进行真实业务操作。以老带新,层层更新的形式进行业务跟进。在跨境电商理论教学时可进行多个平台综合讲解,在实践教学可由学生分组、分角色参与不同平台业务,以轮训的形式在不同平台上做业务,极大地提升学生实操能力。

4.3 把碎片化的课程知识融入贯通到岗位轮训中

跨境电商课程教学中要涉及跨境平台选择、选品、平台规则解读、商品上架、运费和物流设置、营销促销、客服沟通等知识点,基于真实工作过程的跨境电商课程改革,可把学生按这些知识点对应的岗位进行轮训。即让学生在不同的职业岗位,如跨境电商选品专员、跨境电商运营专员、跨境电商视觉营销、跨境电商物流管理、跨境电商客服等岗位轮训,对学生进行相对应能力的培养。重点把国际物流海外仓、跨境电商平台运营、商务英语沟通核心课程融入基于工作过程的实践操作,以促进跨境电商人才综合能力的提升。

(下转 P96)

8. «Analysis of factors influencing family farms' adoption of green prevention and control techniques on an integrative framework of the TPB and NAM», *Acta Psychologica* , SSCI 收录, 2024.05

Acta Psychologica 247 (2024) 104314



Contents lists available at ScienceDirect

Acta Psychologica

journal homepage: www.elsevier.com/locate/actpsy



Analysis of factors influencing family farms' adoption of green prevention and control techniques on an integrative framework of the TPB and NAM

Tingting Chen^a, Wu Chen^b, Xiaojing Lu^{c,*}, Haowen Xiao^d

^a School of Economics and Trade, Henan Polytechnic Institute, Nanyang 473004, China

^b Business School, Jiangxi Normal University, Nanchang, Jiangxi 330022, China

^c School of Economics and Management, Wuhan University, Wuhan 430072, China

^d International Business School, Hainan University, Haikou 570228, China

ARTICLE INFO

Keywords:

Green prevention and control techniques
TPB-NAM
Internal motivation
External environmental pressure

ABSTRACT

The application of green prevention and control techniques (GCTs) is a vital measure for improving the quality of agricultural products and enhancing the safety of the ecological environment and agricultural production. However, realistically, limited by the small-scale, part-time and decentralized business model, the adoption of GCTs by family farms in China faces practical problems such as insufficient internal transformation force and ability, as well as low external supervision efficiency. To reveal the directions of promoting family farms' GCTs adoption behavior, we establish a comprehensive theoretical model through the application of a novel integrated approach combining two dominant psychological theories of behavior change: the Theory of Planned Behavior (TPB) and the Norm Activation Model (NAM). We apply this framework to targeted research of vegetable growers in Henan Province in China using survey data (sample $n = 653$) analyzed through structural equation modeling (SEM). The integrated TPB-NAM model provides insight into both internal motivation and external environmental conditions for farmers' predicted adoption of GCTs. First, internal motivation, value cognition and personal norms are all driving factors affecting the GCTs behavioral intention of vegetable family farms. When GCTs are driven by the dual motivations of "self-interest" (personal norms) and "others-interest" (value cognition), personal norms can be activated by two factors: awareness of consequences and responsibility attribution. Furthermore, social norms, capital endowment and government regulation are the pressure and obstacle factors affecting the GCTs application of vegetable family farms. Social norms can indirectly affect the application of GCTs by forming personal norms. In addition, there are differences between the influencing factors and mechanism of GCTs adoption behavior intention of family farms of different sizes. Based on this, we propose some specific policy suggestions from three aspects: enhance value cognition, improve environmental awareness and responsibility perception, fill in the shortcomings of capital endowment, and implement differentiated incentive and restraint policies.

1. Introduction

Pesticides are an important agricultural input factor for controlling diseases and insect pests and reducing yield loss. However, the excessive application of pesticides will not only aggravate agricultural nonpoint source pollution but also pose a serious threat to the quality and safety of agricultural products and human life and health. Green prevention and control technology is a kind of green production technology that aims to reduce the application of chemical pesticides and takes the comprehensive use of ecological regulation, biological control, physical and chemical inducement control, scientific drug use and other technologies

or combinations as a means to ensure yield and reduce farmers' dependence on chemical pesticides (Yu, Chen, et al., 2021). Green prevention and control technology can reduce pesticide pollution, ensure the quality and safety of agricultural products and promote the sustainable development of agriculture (Lou et al., 2021). Although its advantages are obvious, the phenomenon of excessive investment in agricultural chemicals is still common in China. By the end of 2022, the coverage rate of the green prevention and control of crop diseases and insect pests in China was only 52.07 %, and farmers' enthusiasm for adopting green prevention and control technology was not high, which hindered the further improvement of the coverage rate of green

* Corresponding author.

E-mail addresses: sthi2009@163.com (T. Chen), lxjwhu@163.com (X. Lu).

<https://doi.org/10.1016/j.actpsy.2024.104314>

Received 12 October 2023; Received in revised form 16 April 2024; Accepted 8 May 2024

Available online 18 May 2024

0001-6918/© 2024 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

prevention and control technology in China to a certain extent (Fig. 1). The practical difficulties in the practice of green prevention and control, such as high cost and low motivation, in the practice of green prevention and control may lead to farmers' lack of enthusiasm for adoption. As the micro-behavior subjects of technology adoption, farmers decide whether to adopt this technology, thus influencing the ultimate effect of green prevention and control technology (Gao, Liu, et al., 2019; Yu et al., 2020; Yu, Chen, et al., 2021); thus, improving the adoption rate of green prevention and control technology by farmers has become an urgent problem that needs to be solved.

The existing research on the factors influencing farmers' green prevention and control technology adoption behavior mainly focuses on the following aspects. First, the research is based on farmers' own perspectives, such as individual characteristics (Abebe & Haile, 2013; Kolleh, 2016; Luo et al., 2022; Murage et al., 2015), resource endowments (Niu et al., 2022; Xiong & He, 2020; Gao & Niu, 2019; Allahyari et al., 2016) and technology cognition (Gao, Niu, et al., 2019; Benelli et al., 2017). The second aspect involves research from the psychological point of view, such as reputation appeal (Zhang et al., 2023), behavior cost and external motivation mainly by incentive or punishment (Ma & Zheng, 2023; Shi & Zhang, 2022). The third aspect involves conducting research from the perspective of behavior guidance, such as agricultural technology training (Du et al., 2023; Geng et al., 2017) and agricultural technology knowledge propaganda (Zeng, 2023; Zhang et al., 2023). Based on a review of the literature, it is found that these studies have identified many influencing factors that affect farmers' willingness to participate in the adoption of green prevention and control techniques (GCTs), but there have been some shortcomings. First, scholars have proven that both the internal motivation and external environmental conditions of farmers have an important impact on farmers' behavior from different angles. However, what are the internal connections among these factors? How do they change farmers' behaviors? This issue has not been addressed in the literature, so it needs to be further discussed. In addition, at present, the research focuses on ordinary farmers, and research on the adoption behavior of green prevention and control technology for family farms, a new agricultural business entity, is relatively lacking. For family farms with high scale, strong resource dependence and high business risks, the previous research methods and conclusions are debatable.

There are many types of motivations for farmers' pro-environmental

behavior. Steg and Vlek (2009) summarized in their review that individual motivations to engage in environmental behavior are influenced by weighing costs and benefits and pro-environmental motivations. That is, there is both the need for egoism and the consideration of altruism. Previous research suggests that the Theory of Planned Behavior (TPB) and Normative Activation Theory (NAM) are two main approaches for predicting a person's pro-environmental behavior by weighing costs and benefits or moral considerations (Wang, et al., et al., 2018). That is, the former approach suggests that individuals are willing to perform a pro-environmental behavior for personal interest and egoism needs, and the latter has been widely used to predict people's altruistic and pro-social behavior (Kim et al., 2018). Farmers' green prevention and control technology adoption behavior belongs to the category of pro-environmental behavior, which has both self-interest and altruism attributes (Zhao et al., 2022). Although the two theories show good explanatory power in the study of farmers' pro-environmental behavior, they often pay too much attention to the unilateral psychological motivation of "self-interest" or "altruism", so it is difficult to interpret the whole picture of farmers' psychological activities.

From the logical perspective of the formation of farmers' motivation for adopting green prevention and control technology, the generation of their willingness may be influenced by self-interest and altruistic motivation. The implementation of green prevention and control technology by large-scale farmers is not only due to their own interests (such as increasing agricultural income and avoiding market risks) but also contains moral obligations to a certain extent (such as improving the quality of agricultural products and protecting the ecological environment). Accordingly, based on the theories of TPB (focusing on rational behavior) and NAM (focusing on normative behavior), this paper attempts to construct a comprehensive analysis framework including intrinsic motivation and external environmental factors and investigate the influencing factors and driving mechanisms of the green prevention and control technology adoption behavior of family farms from the two dimensions of individual economic rationality and social moral rationality to provide theoretical support for further guiding farmers' green prevention and control technology adoption behavior.

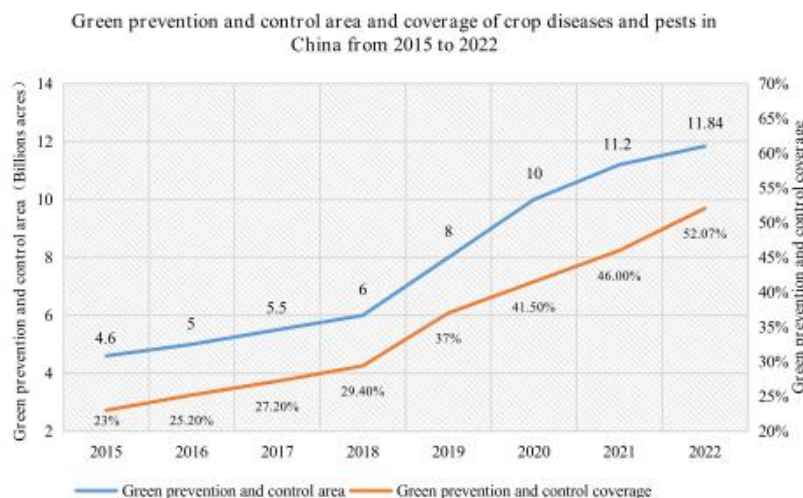


Fig. 1. Green prevention and control area and coverage of crop diseases and pests in China from 2015 to 2022. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

2. Theoretical framework and hypotheses development

2.1. The combination of theory planned behavior and the norm activation model

The Norm Activation Model (NAM), developed by Schwartz (1973), identifies the drivers influencing human pro-environmental behavioral intention toward altruistic and moral norms. Within the NAM, behavioral intentions are a function of personal norms (PN), which in turn are regulated by awareness of consequence (AC) and ascription of responsibility (AR). NAM posits that behavior begins with a person's awareness of the consequence of a destructive behavior followed by developing a sense of responsibility regarding the adverse consequences of that behavior and then ultimately raising the person's intentions to act in a prosocial manner. The TPB model proposed by Ajzen (1991) is more external and objective, both from the individual within the individual to account for the individual objective of the behavior (Attitude) and from the external factors to account for the individual conducting a behavior concomitant with external restrictions (Perceived Behavioral Control) and external social environmental impact (Subjective Norms). Attitudes refer to the degree to which an individual evaluates a specific behavior positively or negatively. In general, an attitude is a set of beliefs regarding the consequences of a behavior. Subjective norms (SN) refer to perceived external social pressure to perform a particular behavior. In other words, it refers to an individual's perception of how much others approve or disapprove of their behavior. The third component of the model, perceived behavioral control (PBC), shows individuals' belief in their ability to succeed in a behavior, i.e., the perceived ease or difficulty of performing a behavior.

The NAM, which is rooted in pro-social behavioral intention, and the TPB, which is based on self-interested motivation, are widely adopted in the environmental psychology literature, although there are specific advantages to applying the two models in tandem to improve responsiveness and data depth and hence to better explore farmers' intention toward pro-environmental behaviors. The principle advantage of a combined model is that it allows for the consideration of both pro-social and self-interested motivational factors that are inconsistent with one another and, hence, more rounded insights into the pro-environmental behavioral context than their independent application. Based on the combination of subjective moral level and objective reality, this research combines normative activation theory with planned action theory. Therefore, based on the NAM and TPB model, this work divides those factors influencing farmers' motivation for adopting GCTs behavior into internal and external factors and.

2.2. Internal motivation and farmers' GCTs adoption behavior

Ajzen (1991) argues that attitudes can be measured by an individual's positive or negative evaluation of a behavior. Ponizovskiy et al. (2019) suggested that attitudes are seen as expressions or subordinate consequences of values; if people have positive value cognition for a certain decision, it is beneficial to the formation of positive behavioral attitudes. Therefore, value cognition is the primary intrinsic motivation factor for family farms to adopt green prevention and control technology. The source of value cognition is generally based on the tradeoff and comparison between prebehavioral expectations and postbehavioral outcomes (Guo et al., 2022). According to the research by (Meng and Si (2022)), the value cognitive dimension of green production concepts includes three pillars: economic value cognition, social value cognition, and ecological value cognition.

First, due to the increase in labor costs and land rent and the decline in the comparative advantage of agricultural product prices, the profit margin of conventional production of family farms has been continuously compressed. In the process of green transformation, if family farms expect that the scientific and standardized use of GCTs is more conducive to increasing economic returns than conventional production, they

will form positive behavioral intentions. Under normal circumstances, the economic expectation of GCTs is a comprehensive consideration of cost, output and premium (Gao, Liu, et al., 2019; Geng et al., 2017). Lower input and technology adoption costs and higher income returns have significantly encouraged agricultural operators to actively participate in GCTs (Gao & Niu, 2019; Gao, Niu, et al., 2019). Second, ecological cognition is reflected in the extent to which farmers attach importance to the current agricultural environmental pollution situation (Meng & Si, 2022), the extent to which they understand agricultural science knowledge and environmental protection policies, and the extent to which they recognize the value of green agricultural production (Qin & Lv, 2020). Scholars generally agree that ecological cognition is the psychological basis and logical starting point of farmers' behavioral decisions and that correct ecological cognition is the prerequisite for farmers' environmental protection behavior (Guo et al., 2022; Ren et al., 2022). When farmers recognize the need to improve the ecological environment and the importance of GCTs, they will consider the impact of ecological changes on the long-term benefits of agricultural production and the rural living environment while pursuing economic benefits through agricultural production, and their willingness and degree of participation in GCTs will be higher. Third, as a new prevention and control method, green prevention and control technology can reduce the pollution of agricultural products by pesticides and ensure the safety of green food (Li et al., 2022). At the same time, it can also improve the working environment of family farms and reduce accidents and problems caused by pesticides and other factors. For example, the incidence of pesticide poisoning accidents among humans and animals can be reduced through the application of green prevention and control technologies. More importantly, the implementation of green prevention and control technology can also drive surrounding farmers to produce high yields and high quality, increase production and increase efficiency (Lin et al., 2021). If farmers realize that GCTs can benefit rural development, promote social progress, and produce better social benefits, their behavioral attitude will be more positive. Based on the above analysis, the following hypothesis is proposed.

H1. Value cognition has a significant positive effect on farmers' GCTs adoption behavior.

Since the principle of the NAM is an activation process for people's inner ethical dimension (Kim et al., 2018), the three variables (personal norms, awareness of consequence and ascription of responsibility) in the NAM can be categorized as internal motivation factors. Among them, awareness of consequence (AC) makes a person aware of the positive effects of pro-social and pro-environmental behaviors on others, ascription of responsibility (AR) involves a person's sense of responsibility for the consequences of pro-social and pro-environmental behaviors toward others, and personal norms (PN) reflect a sense of moral commitment to do, or not to do, certain actions that lead to pro-environmental behaviors (Wang, et al., et al., 2018). In general, while people are aware of the negative consequences of their behavior on others (AC) and hold themselves responsible (AR), they are engaged with PN behaviors, which in turn directly influence their intention.

Wang, et al., et al. (2018) and Zhao et al. (2022) found that an awareness of the consequences of resource waste and environmental pollution can activate personal norms indirectly or directly through the intermediary effect of responsibility ascription. Moreover, personal norms directly drive pro-environmental behaviors such as energy saving and green production (Vaske et al., 2020). With the deterioration of the agricultural ecological environment and the appeal of the whole society for the concept of green development and sustainable development, agricultural operators who have a sense of responsibility have gradually changed from pure "rational people" to "social people" (Zhao et al., 2022). According to the above analysis, the clearer the negative impact of family farms on the ecological environment, material resources, quality and safety and sustainable development caused by chemical control technology, the stronger the sense of responsibility for adverse

consequences, and the greater the possibility of forming personal norms. When farm operators' personal norms are activated, they will have corresponding moral obligations, values and guilt and then promote the formation of behavioral intention to adopt green prevention and control technology. Based on this, the following hypothesis is proposed.

H2. Personal norms have a significant positive effect on farmers' GCTs adoption behavior.

H3. Ascription of responsibility has a positive impact on personal norms.

H4. Awareness of consequences has a positive impact on personal norms.

H5. Awareness of consequences has a positive impact on the ascription of responsibility.

2.3. External environmental pressure and farmers' GCTs adoption behavior

External factors, which are also known as contextual factors in many studies, refer to some objective conditions, living environment, or policy environment that an individual cannot control (Korir et al., 2015 and Zhang et al., 2020). These factors, although invisible, will affect farmers' green prevention and control technology behavior. Social norms, also known as subjective norms in the TPB model, play an external role in guiding and supervising farmers' production behavior decision-making, which refers to the social pressure exerted by others on whether they engage in certain behaviors under specific circumstances (Wang, et al., et al., 2018). Some scholars divide social norms into two aspects, namely, descriptive social norms and imperative social norms. Although they fail to have legal effects and cannot be employed to control people's words and actions through coercion, they can be employed to guide and regulate group members' behavior (Xue et al., 2021). Swinard and McNaught (2015) argued that social norms play an important predictive role in the early stage of behavior adoption. Wang, Yang, et al. (2018) found that social norms have a significant effect on farmers' intention to participate in agricultural nonpoint source pollution management. Gao et al. (2017) also demonstrated the significant effect of social norms on farmers' GCTs adoption behavior in their study. The results showed that the frequency of communication between farmers and their neighbors and the promotion of agricultural technology departments significantly affect the adoption of GCTs by farmers. The higher the support degree of the government, surrounding farmers and agricultural technicians for GCTs is, the greater the pressure of social norms perceived by farmers, and the more likely they are to adopt GCTs (Lin et al., 2021). Based on this, the following hypothesis is proposed.

H6. Social norms have a significant positive effect on farmers' GCTs adoption behavior.

Perceived behavioral control as a variable is also derived from the TPB model. Its meaning in the model is the convenience or difficulty that an individual perceives when doing something. It also indicates whether a person has the resources, the time, and the opportunity to do something (Wang, et al., et al., 2018). The perceptual behavior control of GCTs adoption by farmers refers to the consideration of personal knowledge, experience and GCTs adoption ability when farmers make GCTs adoption decisions. If these restrictions can be weakened, farmers will be willing to try a new technology. Ajzen (1991) proposed that strong perceived behavioral control can directly affect farmers' behavior. Thus, it is simple and beneficial for farmers to adopt GCTs, and they are willing to use it or even directly adopt it. Lou et al. (2021) found that perceived behavioral control had a significant effect on tea farmers' adoption of pro-green control technology for tea plant pests. Compared with traditional agricultural production technology, green prevention and control is an innovative alternative technology integrating biological control, physical control, ecological regulation and scientific drug

use (Yu, Chen, et al., 2021; Yu, Zhao, et al., 2021). It has the characteristics of high risk, large investment and long income, which discourages some family farms (Yu et al., 2020; Yu et al., 2022). It can be seen that the practice of green prevention and control behavior is not only a matter of intention but also a matter of ability and condition. At present, the ability and conditions of green prevention and control depend not only on the ownership of production factors of family farms but also on the incentives and constraints of environmental regulations (Zhao et al., 2022). In other words, the adoption of green prevention and control technology by family farms faces double constraints of endowment and system. Therefore, this paper argues that the perceived behavior control of family farms can be divided into two important aspects: capital endowment and environmental regulation.

Capital endowment, as a collection of all kinds of resources and capacity reserves that can be used for production and life and are owned by family farms, objectively reflects farmers' behavioral ability and has a significant impact on farmers' behavioral choices and decision-making (Gao et al., 2017; Gao & Niu, 2019). Capital endowment mainly includes material, economic and social capital (Wang, et al., et al., 2018; Wang, Yang, et al., 2018). Material resource endowment is an important guarantee for the production and life of family farms, mainly includes the mechanical equipment and facilities needed for farmers' production activities and can improve farmers' farming ability and production and operation efficiency (Gao, Zhao, et al., 2019; Ren et al., 2022). For example, the introduction of energy-saving and low-consumption intelligent production equipment can greatly improve the level of informatization, mechanization and intelligence in the production process and then enhance farmers' enthusiasm for green production innovation. Economic capital is the sum of the wealth and behavioral ability of the whole family to a certain extent (Geng et al., 2017; Zhao et al., 2022). The more abundant the economic capital endowment is, the stronger the risk-taking ability of the operators, the easier it is to obtain the capital investment needed to meet their green prevention and control technology behavior, and the higher the degree of adopting green prevention and control technology behavior (Wang et al., 2021). Social capital refers to the degree of farmers' acquisition of social resources (Gao et al., 2020; Gao & Niu, 2019; Hu et al., 2022; Mao et al., 2021). With the help of social capital, family farms can obtain green production technology information at low cost, reduce information asymmetry, and avoid the uncertainty of the application effect through technical exchange and mutual imitation with members (Shi & Zhang, 2022).

Therefore, the variable is assumed to be as follows:

H7. The higher the capital endowment level of family farms is, the more they tend to adopt green prevention and control technology.

Because of the positive externalities of green prevention and control technology, the government needs to improve and supplement the green market (Lin et al., 2021; Xiong & He, 2020). Giving full play to the government's environmental regulation function is conducive to promoting the production and supply of green agricultural products and guiding and standardizing the production behavior of farmers (Lv et al., 2023). The environmental regulation discussed in this paper refers to the institutional system in which the government improves individual environmental awareness, attitude and cognition by means of policy propaganda and economic means to encourage them to engage in environmental protection behavior. Drawing lessons from the research by Lu et al. (2022), this paper divides environmental regulation to promote agricultural green prevention and control into two types: the economic-incentive type and the command-control type. On the one hand, government incentives can provide productive subsidies, material incentives, credit concessions, etc., to farmers in agricultural green prevention and control through relevant policies, which directly reduces the marginal cost of farmers adopting green prevention and control technology to some extent, thus encouraging operators to actively participate in green prevention and control behavior (Lv et al., 2023).

On the other hand, the government's command-control policy has binding and mandatory characteristics, which can increase the cost of violating regulations by imposing economic or reputation punishment on family farms that deviate from environmental regulations and then force farmers' production methods to change (Lu et al., 2022).

H8. The stronger the environmental regulation is, the more family farms tend to adopt green prevention and control technology behavior.

Because the standard and importance of specific behaviors in society are identified by social norms, agricultural operators will refer to other people's behavioral decisions or be influenced by other people's views when making behavioral decisions (Vaske et al., 2020). Therefore, the green prevention and control behavior of family farms may be internalized into internal individual norms by external social pressure. Zhao et al. (2022) believe that the internalization of social norms is a process of social construction, which is influenced by the interaction of reference groups in specific situations or rules. On the one hand, social norms make family farms more aware of the inevitable trend and development potential of green prevention and control by conveying the support concept of the whole industry and the whole society for green prevention and control (Niu et al., 2022). On the other hand, if family farms think that adopting green prevention and control technology is accepted and advocated by society, they are more likely to be aware of the adverse consequences of using traditional chemical prevention and control and will feel that individuals have the obligation to adopt such production behaviors (Geng et al., 2017; Zhang et al., 2023), so personal norms for green prevention and control are formed more easily. Based on the above analysis, this paper proposes the following assumptions:

H9. Social norms have a significant positive impact on individual norms of green production in vegetable family farms.

According to the review of the relevant literature and theory, based on the TPB and NAM models, the framework of the theoretical hypotheses is shown in Fig. 2. To test these hypotheses, we conduct a survey that is presented in the next part of this paper.

3. Research design and methodology

3.1. Questionnaire design

We designed a questionnaire related to the behavior of vegetable farmers adopting GCTs by referring to the scale designed by previous

studies on the different research objects' behavior of green production. Our questionnaire includes three parts.

Part 1 covered vegetable farmers' sociodemographic characteristics and production and operation characteristics. *Householder characteristics.* 1) Gender. We code the gender variable such that "male" equals 1 and "female" equals 0. 2) Age. We measure a householder's age as his or her actual age. 3) Degree of education. We use a householder's number of years of education to measure the education variable. *Production and operation characteristics.* 1) Planting scales. Referring to Zhao et al.'s (2022) method of dealing with the problem, we code this variable such that " $\leq 3.657\text{hm}^2$; $3.657\text{--}6.115\text{hm}^2$; $> 6.115\text{hm}^2$ ". 2) Number of laborers. We measure the labor force quantity as the number of household laborers and long-term employees. 3) Degree of participation in agricultural cooperatives. Referring to Shi and Zhang's (2022) method of addressing this issue, we code this variable such that "yes" equals 1 and "no" equals 0. Part 2 includes measures for the integrative framework of the TPB and the NAM for evaluating the farmers' GCTs adoption behavior across seven subsections: (i) three items for measuring personal norms based on the studies by Wang, et al., et al. (2018), (ii) four items for measuring awareness of consequence based on the studies by Wang, et al., et al. (2018), (iii) three items for measuring ascription of responsibility based on the studies by Wang, et al., et al. (2018), (iv) three items for measuring value cognition based on the studies by Guo et al. (2022), (v) three items for measuring social norms based on the studies by Wang, et al., et al. (2018), (vi) three items for measuring capital endowment based on the studies by Guo et al. (2022), and (vii) three items for measuring environmental regulation based on the studies by Lu et al. (2022). Part 3 investigated vegetable farmers' GCTs adoption behavior. Based on the "one control, two reduction and three basic" surface pollution prevention and control objectives proposed by the Ministry of Agriculture in 2020 and accounting for the actual situation in Henan Province, five specific indicators were selected to measure the adoption of GCTs by farmers based on the studies by Zhao et al. (2022) and Lou et al. (2021). The specific measurement indicators and assignments are shown in Table 1. Respondents were asked to state the extent of their agreement or disagreement with statements made to measure the variable (based on Likert scale data, 1 [very low] to 5 [very high]), and measurements used in an integrated TPB-NAM model from previous studies were adapted for this research. The specific items for each construct and the questionnaire design method to improve the comprehensibility, validity and reliability of the structure are presented in Table 1.

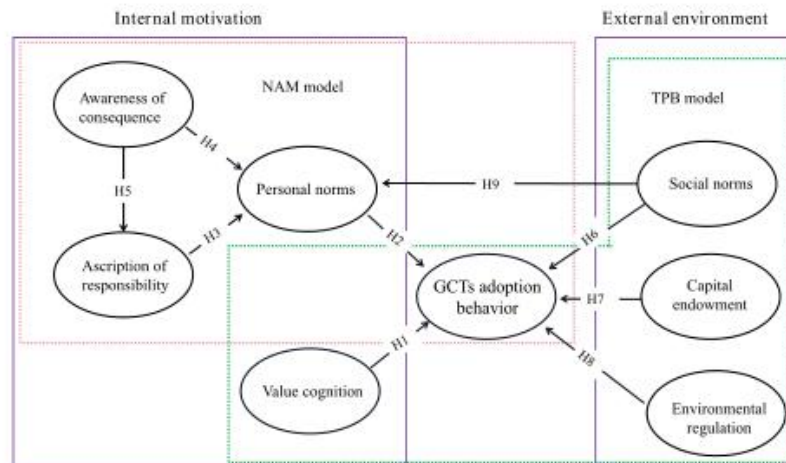


Fig. 2. The theoretical framework for examining farmers' adoption of GCTs based on an integrated NAM-TPB model.

Table 1
Measurement items and descriptive statistics of variables.

Variable	Measure items	Code	Sources
GCTs adoption behavior (GCT)	If conditions permit, I am willing to adopt GCTs	GCT1	Zhao et al. (2022) and Lou et al. (2021)
	I will continue to pay attention to the development of GCTs	GCT2	
	I will recommend GCTs to my relatives and friends	GCT3	
	It is wise to use GCTs	GCT4	
	I am willing to guide others to use GCTs	GCT5	
Personal norms (PN)	Inner moral consciousness drives me to implement GCTs	PN1	Wang, et al., et al. (2018)
	GCTs is consistent with my principles, values and beliefs	PN2	
	Not adopting GCTs will make me feel guilty	PN3	
Ascription of responsibility (AR)	Farms have an unshirkable responsibility to prevent and control environmental pollution	AR1	Wang, et al., et al. (2018)
	Farms have an unshirkable responsibility for the sustainable development of agriculture	AR2	
	Farms have an unshirkable responsibility for the quality and safety of soil and agricultural products	AR3	
Awareness of consequence (AC)	Chemical prevention and control bring great harm to the environment of vegetable-producing areas	AC1	Wang, et al., et al. (2018)
	Chemical prevention and control affects the sustainable development of agriculture	AC2	
	Chemical control affects the quality of soil and vegetables	AC3	
	Chemical prevention and control threatens human health	AC4	
Value cognition (VC)	GCTs can improve the quality and income of vegetables	VC1	Guo et al. (2022)
	GCTs can improve the ecological environment of vegetable-producing areas	VC2	
	GCTs can improve the health level of human settlements	VC3	
Social norms (SN)	Many farmers around have adopted GCTs	SN1	Wang, et al., et al. (2018)
	Relatives and neighbors support farms to implement GCTs	SN2	
	The whole society hopes that the farm will implement GCTs	SN3	
Capital endowment (CE)	Farms have enough knowledge and skills for green prevention and control	CE1	Guo et al. (2022)
	Farms have the funds, labor and time for green prevention and control	CE2	
	Farms are confident in dealing with technical risks in the process of green prevention and control	CE3	
Environmental regulation (ER)	The government's financial and economic subsidies for green prevention and control are relatively strong	ER1	Lu et al. (2022)
	The government has a greater punishment for chemical prevention and control that does not meet the requirements	ER2	
	The government has made great efforts in publicity, education and technical training of green prevention and control	ER3	

3.2. Data collection

3.2.1. Introduction to the study area

The data for this study were obtained from field research conducted by the research team from April to October 2021 on vegetable farmers in Henan Province (as shown in Fig. 3). The sample selection area is based on the following considerations. On the one hand, Henan Province, which is a large vegetable province in China, has an average vegetable planting area of approximately 1.88 million hm² every year, and its total output ranks among the top in China. Henan Province is rich in vegetable varieties, with >150 kinds of vegetables in more than ten categories. It is an important production area of high-quality Chinese cabbage, tomato, radish, pepper, ginger, garlic and other crops, providing many vegetables for domestic and foreign regions every year. Therefore, taking Henan Province as the investigation area is helpful for obtaining a comprehensive and sufficient sample of vegetable farmers. On the other hand, due to unsustainable agricultural production modes, such as intensive use of chemicals, overutilization of cultivated land and overexploitation of groundwater in some areas in the early stage, the soil organic matter in Henan Province was only 19.2 g/kg in 2020, which is lower than the national average level of 24.9 g/kg of cultivated land. As the "hardest hit area" where pesticides and fertilizers are intensively used, the soil quality of vegetable fields is even less optimistic. Thus, there is a situation in which agricultural green production transformation is urgently needed. In recent years, the Henan provincial government has adhered to the plant protection policy of "putting prevention first and comprehensive prevention and control", mainly through five core technical means: ecological regulation, agricultural control, physical and chemical inducement control, biological control and scientific drug use. Furthermore, the provincial government is striving to achieve a green prevention and control coverage rate of 55 % by 2025. Therefore, taking vegetable farmers in Henan Province as the research object has good representativeness, data support and practical significance.

3.2.2. Sample selection and data collection

The sample consists of vegetable farmers in Henan Province, China. The survey was conducted in two stages. The first stage was the pre-investigation stage. In April 2021, 30 family farms in Henan Province were randomly selected for household interviews to pretest the questionnaire to delete unclear questions and add additional questions. A mixed team of five enumerators, majoring in agricultural economics or ecological psychology, was chosen to collect the data. To improve data accuracy, all the enumerators attended a three-day training workshop. The clarity of the questionnaire was improved after this stage. The second stage was the formal survey, which was conducted from May to October 2021. A stratified random sampling method was used to gather

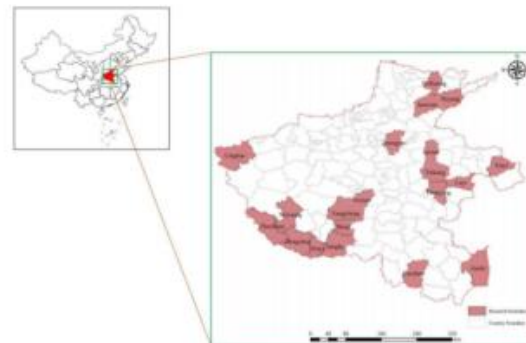


Fig. 3. The position of Henan Province in China and the study area.

data. First, all the selected counties in Henan Province were sorted according to regional GDP and divided into five categories: very high, relatively high, medium, relatively low, and very low. Four counties were randomly selected from each category (as shown in Fig. 3). Then, two townships were randomly selected from each sampled county. Next, four sample villages were randomly selected from each sampled township. Finally, ten family farms were randomly selected from each sampled village. Therefore, the sample for Henan Province covered 20 counties, 40 townships, 80 villages, and 800 family farms. Overall, 800 questionnaires were distributed, and 653 valid questionnaires were returned. A validity rate of 81.6 % was achieved after we eliminated questionnaires in which key information was omitted or self-contradictory information was presented (for instance, where age was less than the number of years of education).

3.3. Sample description

As shown in Table 2, from the perspective of individual basic characteristics, in terms of gender, males accounted for 74.7 %, and females accounted for 25.3 %. In terms of age, farmers aged 41–50 accounted for the highest proportion (63.5 %), with an average age of approximately 46.04. In terms of education level, the farmers had an average of 10.7 years of education, and the education level was generally low. The main characteristics of the samples and their distribution are shown in Table 1. In addition, the number of farming households with >2 members accounted for 58.65 % of the total sample, indicating that the number of farming households with >2 members was relatively small. The number of farming households joining cooperatives accounted for 47.47 % of the sample, indicating that the current farming households are not highly organized.

3.4. Analytical method

The data analysis was divided into four steps. First, the reliability and validity of the measurement model were tested using confirmatory factor analysis. Second, the overall fitness of the structural equation model was verified. The model was revised if it did not meet the standards. Third, the interpretation of the theoretical model was strengthened through the mediating effect test. In the analysis process, SPSS 24.0 and AMOS 24.0 were used as the analysis software for structural equation modeling in this study.

Table 2
Demographic characteristics of vegetable family farms.

Basic Information	Classification	Frequency	Proportion (%)
Gender	male		74.7
	female		25.3
Age (years)	≤30		0.2
	31–40		16
	41–50		63.5
	51–60		19.9
	>60		0.4
Education	Elementary		7.66
	Secondary		29.09
	High school		32.63
	College		30.63
Number of laborers	≤2		41.35
	>2		58.65
Planting scales	≤3.657hm ²		33.5
	3.657–6.115hm ²		33.4
	>6.115hm ²		33.1
Whether have participated in cooperatives	Yes		47.5
	No		52.5

4. Results and analysis

4.1. Measurement model analysis

In this paper, SPSS 24.0 was used to test and analyze the reliability and validity of the questionnaire, and the test results are shown in Table 3. First, we determined whether the original item was suitable for factor analysis. The statistical software SPSS is helpful for determining whether a variable is suitable for factor analysis through the use of Bartlett's spherical degree test and the KMO test. The KMO value for the complete table of eight variables is 0.909, which is larger than the KMO critical value of 0.7. The *P* value of the Bartlett's spherical degree test is zero, which means that the original item is suitable for factor analysis. To ensure the effectiveness of the study, we tested the validity of the variables, the combination of reliability, and the content validity. Aggregation validity is used to express the association relation under the same structure. Combination reliability is used to describe the consistency of each topic under the same structure. The content validity indicates the appropriateness and consistency of the questionnaire measurement content. As shown in Table 3, all factor weights in this study were >0.5, and the average variance extraction was >0.5, indicating that the questionnaire had good polymerization validity (Fornell & Larcker, 1981). The combined reliability index was >0.6, indicating that the intrinsic quality of the model was ideal. The contents of the questionnaire refer to the previous study set, coupled with the relevant areas of expertise to determine content validity. In regard to testing the reliability of the index, Cronbach's alpha values of the eight variables all exceeded the ideal level of 0.7, indicating that the design of this scale was reliable (Table 3). In addition, the factor loadings of each observed variable coefficient all exceeded 0.6, indicating that the questionnaire had sound structural validity and was sufficiently valid for conducting a factor analysis. In sum, the questionnaire was deemed valid.

4.2. Model fit testing

After sample data were imported, the theoretical hypothesis model was estimated using AMOS statistical analysis software. The general goodness-of-fit indices for the structural model studied are shown in Table 4. In this study, χ^2/df , GFI, AGFI, NFI, TLI, IFI, CFI and RMSEA were selected comprehensively to check the fitness of the model. By verification, the measures of overall fit indicate that the sample data in this study fit well with the proposed conceptual model (absolute fit indices: $\chi^2/df = 1.147$, RMSEA = 0.015, GFI = 0.963, AGFI = 0.953; comparative fit indices: NFI = 0.957, CFI = 0.994, TLI = 0.993; parsimonious fit indices: PGFI = 0.754, PNFI = 0.807, PCFI = 0.838).

4.3. Hypothesis testing

AMOS24.0 was used to test the above theoretical hypothesis. As shown in Table 5 and Fig. 4, all hypotheses, except H6 (social norm variables on farmers' GCTs adoption behavior implementation), were confirmed at a significance level of 0.05.

4.3.1. Internal motivation for farmers' GCTs adoption behavior

- (1) Value cognition. The standardized path coefficient of value cognition to behavior implementation is 0.224 ($p < 0.01$). Value cognition has a positive impact on farmers' willingness to participate in green prevention and control behavior, and H1 is supported. First, as rational economic people, farmers will weigh the benefits and costs of green prevention and control. When farmers perceive that the participation threshold of green prevention and control is low and the expected benefits are high, their willingness to participate will be rationally stimulated. Second, the promotion of policies and the spread of ecological civilization ideas have changed farmers' concepts to a certain

Table 3
Results of reliability and validity tests.

Observational Variable	Mean	Std. dev.	Reliability test			Validity test			
			SMC	Factor Loading	Cronbach's α	KMO	Bartlett's	AVE	CR
GCT1	3.530	1.166	0.608	0.78					
GCT2	3.480	1.192	0.630	0.794					
GCT3	3.600	1.174	0.651	0.807					
GCT4	3.440	1.185	0.527	0.726					
GCT5	3.670	1.155	0.465	0.682	0.875	0.880	1492.798***	0.836	0.63
PN1	3.450	1.113	0.552	0.743					
PN2	3.650	1.097	0.531	0.729					
PN3	3.240	1.124	0.616	0.785	0.796	0.708	594.910***	0.797	0.566
AR1	3.560	1.079	0.593	0.77					
AR2	3.650	1.070	0.548	0.74					
AR3	3.800	1.069	0.573	0.757	0.760	0.694	481.038***	0.875	0.582
AC1	3.730	1.062	0.420	0.648					
AC2	3.850	1.055	0.551	0.742					
AC3	3.650	1.093	0.596	0.772					
AC4	3.890	1.036	0.602	0.776	0.793	0.794	732.348***	0.794	0.491
VC1	3.250	1.208	0.699	0.836					
VC2	3.630	1.107	0.569	0.754					
VC3	3.420	1.138	0.523	0.723	0.814	0.709	673.264***	0.816	0.597
SN1	3.490	1.117	0.458	0.677					
SN2	3.460	1.133	0.587	0.766					
SN3	3.600	1.156	0.500	0.707	0.814	0.704	684.229***	0.761	0.515
CE1	3.710	1.146	0.677	0.823					
CE2	3.840	1.133	0.458	0.677					
CE3	3.930	1.124	0.659	0.812	0.855	0.733	865.825***	0.816	0.598
ER1	3.740	1.117	0.638	0.799					
ER2	3.750	1.111	0.634	0.796					
ER3	3.680	1.148	0.716	0.846	0.837	0.727	764.709***	0.855	0.663
Total					0.913	0.909	7849.532***		

Table 4
Result of model overall fitness test.

Index Type	Index	Model Index Values	Fitness Requirement	Fitness Evaluation
Absolute Fit Indices	χ^2/df	1.147	<3	Ideal
	RMSEA	0.015	<0.08	Ideal
	AGFI	0.953	>0.8	Ideal
Comparative Fit Indices	GFI	0.963	>0.8	Ideal
	TLI	0.993	>0.8	Ideal
	NFI	0.957	>0.8	Ideal
Parsimonious fit Indices	CFI	0.994	>0.8	Ideal
	PGFI	0.754	>0.5	Ideal
	PNFI	0.807	>0.5	Ideal
	PCFI	0.838	>0.5	Ideal
	AIC	503.644 < 756.000	Theoretical model values are smaller than independent model values and saturated model values at the same time	Ideal

extent, making them realize that participating in green prevention and control can not only promote the construction of ecological civilization in rural areas but also benefit future generations, which makes farmers pay attention to not only the trade-off of short-term benefits but also the improvement of long-term production and living conditions. Under this consideration, high-intensity social value perception will correct farmers' ecological preferences, and farmers' willingness to participate in green prevention and control will increase. Finally, with the improvement of living conditions, farmers pay increasing attention to the impact of the surrounding environment on their lives and to improving the quality of life by improving the ecological environment. Therefore, when they have the opportunity to realize their own demands, farmers have a higher willingness to participate in green prevention and control.

Table 5
Results of model estimates.

Paths	Standardized Path Coefficient	t value	Result
H1: GCTs adoption behavior→Value cognition	0.224***	4.182	Support
H2: GCTs adoption behavior→Personal norms	0.181***	4.292	Support
H3: Personal norms→Ascription of responsibility	0.141**	2.687	Support
H4: Personal norms→Awareness of consequence	0.357***	6.263	Support
H5: Ascription of responsibility→Awareness of consequence	0.413***	7.661	Support
H6: GCTs adoption behavior→Social norms	0.030	0.695	Not supported
H7: GCTs adoption behavior→Capital endowment	0.247***	4.32	Support
H8: GCTs adoption behavior→Environmental regulation	0.211***	3.714	Support
H9: Personal norms→Social norms	0.196***	4.156	Support

- (2) Awareness of consequence, Ascription of responsibility and Personal norms. (2) Consequence consciousness, responsibility attribution and personal norms.

First, the standardization path coefficient of "personal norm→behavior intention" is 0.181 ($p < 0.01$), indicating that inherent ethics and value beliefs positively affect the behavioral intention of green prevention and control in vegetable family farms, and H2 is supported. Second, from the path of activation of personal norms, the standardized path coefficient of "Awareness of consequence→Ascription of responsibility" is 0.413 ($p < 0.01$), indicating that the stronger the perception of adverse consequences of traditional chemical prevention and control by vegetable family farms is, the stronger their sense of responsibility and obligation for green prevention and control, and H5

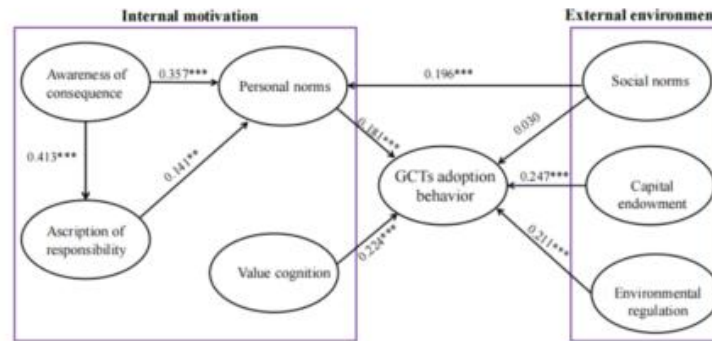


Fig. 4. Test results of driving mechanisms and factors influencing farmland GCTs adoption behavior based on TPB - NAM integration theory.

is supported. Furthermore, the standardization path coefficient of “Ascription of responsibility→personal norm” is 0.141 ($p < 0.05$), indicating that the stronger the sense of responsibility attribution of vegetable family farms to the ecological environment, resource conservation, quality and safety and sustainable development is, the more conducive it is to producing personal internal ethics of green prevention and control behavior, and H3 is supported. Finally, the path coefficient of “awareness of consequence→personal norms” is 0.357 ($p < 0.01$). It can be seen that the perception of adverse consequences of traditional chemical prevention and control in vegetable family farms can not only directly activate personal norms but also indirectly activate personal norms through the intermediary effect of responsibility attribution, and H4 is supported. Furthermore, against the background of the green transformation of agricultural development, as the key subject of future agricultural production and the beneficiary of rural ecological environment protection, if family farms realize the adverse consequences of traditional chemical prevention and control and feel responsible for these adverse consequences, this sense of consequences and responsibility will activate moral norms and, from the perspective of the internalization of moral values, encourage family farms to adopt green prevention and control technologies that meet the expectations of society or the public.

4.3.2. External environmental pressure on farmers' GCTs adoption behavior

- (1) Social norms. The path coefficient of “social norm→behavioral intention” is 0.030, which fails the significance test at the 5 % level, and H6 is not supported, but this does not mean that social stress cognition has no role in the formation of the behavioral intention of green prevention and control. The path coefficient of “social norm→personal norm” is 0.196 ($p < 0.01$), and H9 is supported, which shows that the direct influence of social norm on behavior intention is decomposed by the personal norm. The influence of social norms on behavioral intention is mainly accomplished through the exertion of a subtle influence on individual norms. That is, family farms are often not afraid of external social pressure, but social norms do guide their correct behavioral beliefs. Therefore, farmers on family farms account for the expectations of others and society when forming personal norms, which can be shaped by the surrounding environment and social groups to a great extent.
- (2) Capital endowment. The standardized path coefficient of Capital endowment to behavior implementation is 0.247, and H7 is supported. Vegetable family farms with abundant human capital have irreplaceable advantages in management ability, innovation consciousness and environmental literacy, and their structural

advantages have an obvious influence on promoting the adoption of green prevention and control behavior. Social capital consists of abundant potential resources, which can make family farms create more green prevention and control opportunities. For example, farms with closer ties with the government and industrial organizations and higher status in their social network can obtain technical guidance on green prevention and control at lower transaction costs, which makes up for the constraints caused by other capital deficiencies on green prevention and control behavior. At the same time, based on the normative pressure in the social network, farms with abundant social capital can also restrain their excessive and unreasonable fertilization behavior from a higher level of ethics, which is an irreplaceable advantage over other capitals. As far as material capital is concerned, if a farm has sufficient modern agricultural machinery and equipment, perfect infrastructure and convenient transportation conditions, it can create many convenient conditions in production, management and sales for the implementation of green prevention and control behavior and achieve the purpose of saving costs and increasing efficiency.

- (3) Environmental regulation. The standardized path coefficient of environmental regulation for behavior implementation is 0.211 ($p < 0.01$), and H8 is supported. First, government-binding regulations will increase the production cost and penalty risk of vegetable farms. To avoid risks, based on rational choice theory, the adoption of green prevention and control technology by growers will be improved. Second, the main reason that growers are unwilling to choose green prevention and control technology is that the environmental improvement obtained by adopting green prevention and control technology is shared by others free of charge, and they have not received any compensation. Economic incentive regulation alleviates the cost of adopting green prevention and control technology through various forms of subsidies and cost reduction, increases the income of technology selection and adoption, and internalizes the cost of environmental governance to alleviate the shortage of market mechanisms and improve the efficiency of resource allocation. Finally, education-guided regulation aims to guide people to form correct ecological and economic values by means of publicity, training and guidance, strengthen people's awareness of green production, improve people's awareness and understanding of green prevention and control production methods, and promote growers' choice of green prevention and control technologies.

4.4. Results of the mediating effect test

The results of the mediating effect test are reported in Table 6. For

Table 6
Results of the mediating effect test.

Paths	Mediating Effect
Awareness of consequence→Ascription of responsibility→Personal norms	0.058*
Awareness of consequence→Personal norms→GCTs adoption behavior	0.065***
Ascription of responsibility→Personal norms→GCTs adoption behavior	0.026**
Social norms→Personal norms→GCTs adoption behavior	0.036**

the activation path of personal norms, the direct effect of consequence consciousness on personal norms is 0.357, the direct effect on responsibility attribution is 0.413, and the indirect effect on personal norms is 0.058. It can be seen that personal norms can be activated along two paths: "Awareness of consequence→Ascription of responsibility→personal norms" and "Awareness of consequence→personal norms", which also confirms that NAM theory has good applicability in the research of family farm GCTs adoption behavior decision-making. The direct influence of social norms on behavior implementation is not significant, but it has a great direct influence on personal norms, with an influence effect of 0.196. Therefore, social norms mainly affect behavior implementation through the mechanism of "social norms→individual norms→behavior implementation"; that is, social norms indirectly guide family farms to implement GCTs adoption behavior through the transmission and internalization of group values and morality.

4.5. Results of cluster robustness test and heterogeneity analysis

Finally, multigroup analysis was used to test the robustness of the above model. According to the distribution of samples, the farms were divided into large-scale (> 6.115 hm²), medium-scale (> 3.657 and ≤ 6.115 hm²) and small-scale (≤ 3.657 hm²) groups, and preset models were selected among 5 types of models for multigroup analysis. The results show that the RMSEA values are between 0.021 and 0.022, the CFI values are between 0.960 and 0.964, the chi-square statistics are not significant, and the multigroup model is well adapted to the sample data. The path coefficient symbols and significance levels in each group model are similar to those in each group model. Fig. 3 is similar, and the above conclusions are robust. This paper focuses on the analysis of the differences in the influence of intrinsic motivation (value cognition) and external environmental pressure (environmental regulation) on green GCTs adoption behavior in each group (see Fig. 5).

The path coefficients of "personal norms → behavior implementation" are 0.165, 0.181 and 0.188 for small, medium and large farms, respectively. It can be seen that with an increase in scale, the influence

effect of personal norms gradually increases, and personal norms can drive large-scale farms to engage in farmland GCTs adoption behavior. The possible explanation is that obeying personal norms will produce two kinds of self-emotions: pride and guilt. Because of the high social status and prestige of large-scale family farms, personal norms are more likely to be transformed into pride in altruistic behavior and guilt in environmental damage behavior, thus effectively accelerating the implementation of environmental protection GCTs behavior. In addition, large-scale farms have stronger management ability, fewer factor constraints, and fewer obstacles to the transformation of personal norms into actual behaviors.

The path coefficients of "environmental regulation → behavior implementation" are 0.197, 0.223 and 0.218 for small, medium and large farms, respectively. It can be seen that with an increase in scale, the impact effect of environmental regulation presents an inverted "V" trend, and environmental regulation can encourage medium-sized farms to implement environmental protection GCTs behavior. A possible explanation is that compared with concurrent small farms and enterprise large farms, medium-sized farms have no other time or resources for diversifying their operations, their production is closer to specialization, and their operational risks are more concentrated (Zhao et al., 2022). Therefore, due to the sensitivity of risk aversion to agricultural cost-benefits, economic benefits have a more significant impact on the green disposal behavior of waste in medium-sized farms. A possible explanation is that compared with concurrent small farms and enterprise large farms, medium-sized farms have no other time or resources for diversifying their operations, their production is closer to specialization, and their operational risks are more concentrated (Zhao et al., 2021). Therefore, due to the sensitivity of risk aversion to agricultural cost-benefit, environmental regulation has a more significant impact on farmland GCTs adoption behavior in medium-sized farms.

5. Conclusion and discussion

5.1. Conclusion

To promote the green production transformation of vegetable family farms, positive behavioral intentions need to be formed. Under the dual identities of "rational person" and "social person", a farm's green prevention and control production behavior intention originates from stronger motivation factors (value cognition and personal norms), greater pressure factors (social norms) and smaller obstacle factors (capital endowment and environmental regulation). The effect of the above cognitive factors on green prevention and control production behavior intention will also change with a change in objective factors (such as scale).

As far as the overall factors are concerned, seven cognitive factors,

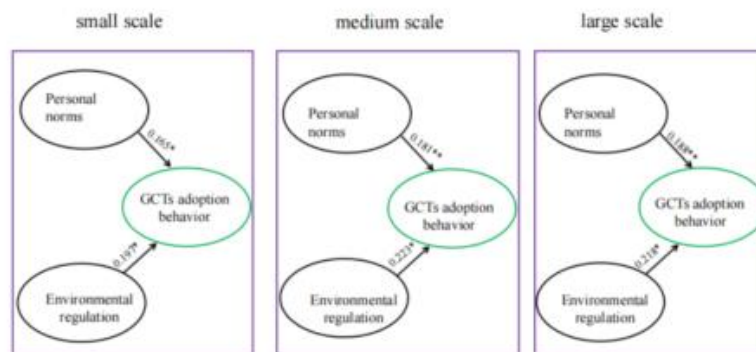


Fig. 5. Effects of economic benefits and environmental norms on farmland GCTs adoption behavior of family farms of different sizes.

namely, value cognition, personal norms, assignment of responsibility, awareness of consequence, social norms, capital endowment and environmental regulation, have a significant influence on the adoption behavior intention of green prevention and control technology in vegetable family farms. Among them, capital endowment has the greatest effect, followed by value cognition, environmental regulation and personal norms.

As far as motivation factors are concerned, "self-interest motivation" and "altruistic motivation" are both motivation factors affecting the behavioral intention of green prevention and control in vegetable family farms, but the influence effect of value cognition is greater than that of personal norms, and the behavioral decision-making of vegetable family farms still gives priority to the guiding principle of economic efficiency optimization. Awareness of consequence and ascription of responsibility are the prevariables and root factors that activate personal norms. Norm activation theory (NAM) has high applicability and predictive ability in analyzing the motivation of green prevention and control behavior in vegetable family farms.

Regarding stress and obstacle factors, social norms, capital endowment and environmental regulation are the main stress and obstacle factors. Among these factors, the lack of efficacy evaluation and experience habit has a direct inhibitory effect on the intention of green pesticide application behavior. In terms of social norms, one person regulates one behavior intention and then affects behavior intention.

As far as different groups are concerned, the green prevention and control behavior of small-scale farms is more susceptible to value cognition, while large-scale farms are more susceptible to personal norms than small-scale farms, and the activation path of personal norms of large-scale farms is more in line with the assumptions of NAM theory.

5.2. Policy recommendations

The use of green prevention and control technology is an important way to effectively solve the excessive and inefficient use of pesticides, protect the ecological environment and realize the transformation from traditional chemical control to modern green prevention and control. However, the coverage rate of green pest control of crops is not high at present, and the adoption rate of green pest control technology by farmers at the micro level is not high. Based on the conclusion of this study, to give full play to the influence of external pressure factors and internal motivation factors on the green prevention and control technology adoption behavior of vegetable family farms and better promote the adoption of green prevention and control technology in vegetable family farms, the following policy recommendations are obtained.

- (1) Enhance the value cognition of green prevention and control in vegetable family farms. In this study, it was found that value cognition is the main intrinsic motivation that affects the behavioral intention of green prevention and control in vegetable family farms. First, publicity and education are important ways to improve the value cognition level of vegetable family farms. We should make full use of government departments, village committees, agricultural cooperatives and agricultural enterprises to publicize and promote the knowledge and technology related to green prevention and control of vegetable family farms online (television, network, radio) and offline (lectures, training, vocational education). Second, vegetable family farms need to be regularly organized to exchange and discuss the experiences and difficulties in using green prevention and control technology, excellent vegetable family farms need to be encouraged to share the use effect of green prevention and control technology, and the value cognition of other vegetable family farms should be enhanced. Finally, as rational economic people, farmers at vegetable family farms are most concerned about the economic value of vegetables. Therefore, we should continue to perfect the market price system of "high quality and good price", give full

play to the incentive effect of sales premium of green agricultural products, effectively improve the economic benefits of green prevention and control production in vegetable family farms, and then stimulate the endogenous motivation of green prevention and control behavior in vegetable family farms.

- (2) Improve the environmental awareness and responsibility perception of green prevention and control in vegetable family farms. In addition to pursuing economic value, the green prevention and control of vegetable family farms also have a certain "altruistic" motivation. Therefore, through diversified publicity and education, we should strengthen farm environmental awareness and responsibility perception and the intrinsic motivation of green prevention and control from the "altruistic" level to improve their voluntariness and initiative in implementing green prevention and control behavior. On the one hand, it is necessary to make full use of government propaganda, emphasize the adverse consequences of chemical prevention and control on the vegetable production environment and quality, make family farms realize the importance and urgency of green prevention and control, and increase their environmental awareness. On the other hand, we can use the transmission and internalization of social norms to strengthen the responsibility perception of vegetable family farms and guide and urge family farms to adopt green prevention and control behaviors.
- (3) Complement the endowment shortcomings in the green transformation of vegetable family farms. Green prevention and control is not only a cognitive problem but also a problem of conditions and abilities. However, the improvement of a capital endowment level has a significant impact on the green prevention and control behavior of vegetable family farms. First, the material capital of vegetable family farms should be supplemented through supporting key links such as transportation, production and processing, cold chain logistics, agricultural machinery purchase, etc., and the production cost burden of green prevention and control for vegetable family farms should be reduced. Second, the human capital of vegetable family farms should be improved. For example, according to the problems of limited education level, dependence on planting experience and insufficient professional skills, the skills training of farm producers and operators can be increased. Third, the substitution role of the social capital of vegetable family farms should be fully utilized. For example, family farms can be encouraged to use social capital, actively strive for subsidies for new technologies for green prevention and control, and make full use of opportunities such as technical exchanges with experts to make up for production constraints caused by insufficient capital endowments and improve green prevention and control capabilities.
- (4) Implement diversified incentive and restraint mechanisms for vegetable family farms. Under external conditions, environmental regulation has a significant role in promoting the green prevention and control of vegetable family farms. It is necessary to further optimize environmental regulations and formulate corresponding policies and design diversified incentive and restraint mechanisms suitable for vegetable family farms. First, the subsidy mechanism for green prevention and control of vegetable family farms should be improved in terms of subsidy years, subsidy contents and distribution forms. Second, the services, insurance, sales and technical support for vegetable family farms should be increased. Third, the supervision system for the green prevention and control of vegetable family farms should be improved; this could be accomplished by building a consumer reputation evaluation system and actively guiding the public to participate in supervising the self-discipline management of family farms. Fourth, a differentiated incentive and restraint mechanism for vegetable family farms should be constructed. For example, for large-scale family farms, more attention should be

given to publicity and education to activate their environmental literacy, ethics and responsibility concepts, while for small-scale family farms, more attention should be given to their economic benefits and to resolving their production risks to encourage all kinds of vegetable family farms to achieve the goal of green transformation.

5.3. Research limitations and outlook

In the present study, there are some limitations that should be acknowledged, as well as some interesting future research directions. First, the work was done as a case study in a specific region over a limited time scale, and its universality may have certain limitations for other regions. Future studies should include more diverse samples from various regions at longer time scales to validate and enrich the existing conclusions. Second, this study uses data from a single questionnaire in 2021, and the cross-sectional data cannot reflect the dynamic impact of policy environment changes on farmers' participation in GCTs. Therefore, future studies can adopt the vertical study method and track the follow-up situation of sample vegetable family farms adopting green prevention and control technology through irregular investigation. Additionally, the popularization and application of green prevention and control technology has a long-term nature, while the influencing factors are not constant, so it is particularly necessary to explore and grasp these influencing factors in stages and formulate and adjust corresponding countermeasures in a timely manner. At the same time, we should also pay attention to research on the factors influencing the sustainable use of green prevention and control technology because research on the factors influencing sustainable use is helpful for deeply understanding the deep mechanism of farmers' sustainable use of technology, and the multiple effects of green prevention and control technology can only be highlighted through sustainable use, thus providing scientific and feasible suggestions for the sustainable promotion and technological evolution of green prevention and control technology. Despite the above limitations, this study can still provide valuable insights into the factors influencing farmers' participation in GCTs and serve as a foundation for future efforts in this research field.

Ethics statement

Ethical review and approval were not required for the study on human participants in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

CRediT authorship contribution statement

Tingting Chen: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Writing – original draft, Writing – review & editing. **Wu Chen:** Data curation, Formal analysis, Investigation, Methodology, Writing – original draft, Writing – review & editing. **Xiaojing Lu:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Writing – original draft, Writing – review & editing.

Declaration of competing interest

This work was supported by the National Social Science Fund of China under Grant 22CGL024 (Research on the path and policy of entrepreneurial agglomeration platform to promote the high-quality development of rural specialty industries), the Key Project of Educational Science Planning in Henan Province under Grant 2023JKZD41, the Science and Technology Project of Science and Technology Department of Henan Province under Grant 232400412050 (Research on the Mechanism and Path of Green Finance Helping Henan Ecological Product Value Realization under the Goal of Double Carbon) and

242300420597 (Study on the Activation Mechanism and Regulation Path of Human Settlement Environment of Traditional Villages in the Yellow River Basin Based on Regional Resource Endowment).

Data availability

Data will be made available on request.

References

- Abebe, D., & Haile, M. G. (2013). The impact of cooperatives on agricultural technology adoption: Empirical evidence from Ethiopia. *Food Policy*, 38, 82–91. <https://doi.org/10.1016/j.foodpol.2012.10.003>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-1](https://doi.org/10.1016/0749-5978(91)90020-1)
- Allahyari, M. S., Damalas, C. A., & Ebadattalab, M. (2016). Determinants of integrated pest management adoption for olive fruit fly (*Bactrocera oleae*) in Roudbar, Iran. *Crop Protection*, 84, 113–120. <https://doi.org/10.1016/j.cropro.2016.03.002>
- Benelli, G., Pavea, R., Maggi, F., Petrelli, R., & Nicoletti, M. (2017). Commentary: Making green pesticides greener? The potential of plant products for nanosynthesis and pest control. *Journal of Cluster Science*, 28(1), 3–10. <https://doi.org/10.1007/s10876-016-1131-7>
- Du, S., Luo, X., & Huang, Y. (2023). Research on the influence of technology evaluation on farmers adoption behavior of green control technology. *Journal of Agrotechnical Economics*, 8(14), 1–15. <https://doi.org/10.13246/j.cnki.jae.20230118.002>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
- Gao, Y., Liu, B., Yu, L., Yang, H., & Yin, S. (2019). Social capital, land tenure and the adoption of green control techniques by family farms: Evidence from Shandong and Henan provinces of China. *Land Use Policy*, 89, Article 104250. <https://doi.org/10.1016/j.landusepol.2019.104250>
- Gao, Y., & Niu, Z. (2019). Risk aversion, information acquisition ability and Farmers' adoption behavior of green control techniques. *China's rural economy*, 8, 109–127.
- Gao, Y., Niu, Z., Yang, H., & Yu, L. (2019). Impact of green control techniques on family farms' welfare. *Ecological Economics*, 161, 91–99. <https://doi.org/10.1016/j.ecolecon.2019.03.015>
- Gao, Y., Zhang, X., Lu, J., Wu, L., & Yin, S. (2017). Adoption behavior of green control techniques by family farms in China: Evidence from 676 family farms in Huang huai-hai plain. *Crop Protection*, 99, 76–84. <https://doi.org/10.1016/j.cropro.2017.05.012>
- Gao, Y., Zhao, D., Yu, L., & Yang, H. (2019). Duration analysis on the adoption behavior of green control techniques. *Environmental Science and Pollution Research*, 26(7), 6319–6327. <https://doi.org/10.1007/s11356-018-04088-9>
- Gao, Y., Zhao, D., Yu, L., & Yang, H. (2020). Influence of a new agricultural technology extension mode on farmers' technology adoption behavior in China. *Journal of Rural Studies*, 76, 173–183. <https://doi.org/10.1016/j.jrurstud.2020.04.016>
- Geng, Y., Zheng, S., & Lu, Q. (2017). Impact of economic incentives and social networks on farmers' adoption of integrated pest management technology. *Journal of Huazhong Agricultural University*, 06, 59–69. <https://doi.org/10.13300/j.cnki.hnwkxb.2017.06.008>
- Guo, A., et al. (2022). How do climate change perception and value cognition affect farmers' sustainable livelihood capacity? An analysis based on an improved DFID sustainable livelihood framework. *Sustainable Production and Consumption*, 33, 636–650. <https://doi.org/10.1016/j.spc.2022.08.002>
- Hu, H., Cao, A., Chen, S., & Li, H. (2022). Effects of risk perception of pests and diseases on tea farmers' green control techniques adoption. *International Journal of Environmental Research and Public Health*, 19(14), 8465. <https://doi.org/10.3390/ijerph19148465>
- Kim, Y. G., Woo, E., & Nam, J. (2018). Sharing economy perspective on an integrative framework of the Nam and TPB. *International Journal of Hospitality Management*, 72, 109–117. <https://doi.org/10.1016/j.ijhm.2018.01.008>
- Kolleh, R. R. (2016). Determinants of farmers' participation in agricultural production cooperatives and impact of cooperative membership on farm income in Liberia M. Phil. D. Kwame Nkrumah University of Science and Technology. <https://doi.org/10.1093/acpp/ppr044>
- Korir, J. K., Affognon, H. D., Rithe, C. N., Kingori, W. S., Irungu, P., Mohamed, S. A., & Ekesi, S. (2015). Grower adoption of an integrated pest management package for management of mango-infesting fruit flies (Diptera: Tephritidae) in Embu, Kenya. *International Journal of Tropical Insect Science*, 35(2), 80–89. <https://doi.org/10.1017/S1742758415000077>
- Li, X., Jin, L., Chen, Z., et al. (2022). Application and development of green preventive and control technologies in Guizhou tea plantations. *Front. Agr. Sci. Eng.*, 9(1), 75–81. <https://doi.org/10.15302/J-FASE-2021-424>
- Lin, L., Li, J., & Xiao, B. (2021). What factors determine Farmers' willingness to adopt green production technology: Market or government? *Economic problems*, 12, 67–74. <https://doi.org/10.16011/j.cnki.jjw.2021.12.011>
- Lou, S., Zhang, B., & Zhang, D. (2021). Foresight from the hometown of green tea in China: Tea farmers' adoption of pro-green control technology for tea plant pests. *Journal of Cleaner Production*, 320. <https://doi.org/10.1016/j.jclepro.2021.128817>
- N.PAG.
- Lu, Y., Tan, Y., & Wang, H. (2022). Impact of environmental regulation on green technology adoption by farmers: Microscopic investigation evidence from pig

- breeding in China. *Frontiers in Environmental Science*, 10. <https://doi.org/10.3389/fenvs.2022.885933>
- Luo, L., Qiao, D., Zhang, R., Luo, C., Fu, X., & Liu, Y. (2022). Research on the influence of education of farmers' cooperatives on the adoption of green prevention and control technologies by members: Evidence from rural China. *International Journal of Environmental Research and Public Health*, 19(10), 6255. <https://doi.org/10.3390/ijerph19106255>
- Lv, N., et al. (2023). Effect of government intervention and market incentives on farmer organic fertilizer application behavior and agricultural emission reduction. *Natural Hazards Review*, 24(1). [https://doi.org/10.1061/\(asce\)nh.1527-6996.0000595](https://doi.org/10.1061/(asce)nh.1527-6996.0000595)
- Ma, Q., & Zheng, S. (2023). The impact of information acquisition channels on farmers' green control technology behavior. *Journal of Northwest A&F University (Social Science Edition)*, 23(3), 109–119. <https://doi.org/10.13968/j.cnki.1009-9107.2023.03.12>
- Mao, H., Luo, X., Tang, L., & Huang, Y. (2021). Adoption decisions of multiple agricultural green production technologies. *Journal of China Agricultural University*, 26(06), 231–244.
- Meng, L., & Si, W. (2022). Pro-environmental behavior: Examining the role of ecological value cognition, environmental attitude, and place attachment among rural farmers in China. *International Journal of Environmental Research and Public Health*, 19(24), 17011. <https://doi.org/10.3390/ijerph192417011>
- Murage, A. W., Midega, C. A. O., Pittchar, J. O., Pickett, J. A., & Khan, Z. R. (2015). Determinants of adoption of climate-smart push-pull technology for enhanced food security through integrated pest management in eastern Africa. *Food Security*, 7(3), 709–724. <https://doi.org/10.1007/s12571-015-0454-9>
- Niu, Z., Chen, C., Gao, Y., Wang, Y., Chen, Y., & Zhao, K. (2022). Peer effects, attention allocation and farmers' adoption of cleaner production technology: Taking green control techniques as an example. *Journal of Cleaner Production*, 339, Article 130700. <https://doi.org/10.1016/j.jclepro.2022.130700>
- Ponizovskiy, V., Grigoryan, L., Kühnen, U., & Boehnke, K. (2019). Social construction of the value-behavior relation. *Frontiers in Psychology*, 10, 934. <https://doi.org/10.3389/fpsyg.2019.00934>
- Qin, S., & Lv, X. (2020). Research on farmers' green control techniques adoption behavior and its effect evaluation. *Journal of China Agricultural University*, 37(04), 50–60. <https://doi.org/10.13240/j.cnki.caujss.2020.04.007>
- Ren, J., Lei, H., & Ren, H. (2022). Livelihood capital, ecological cognition, and farmers' green production behavior. *Sustainability*, 14(24), 16671. <https://doi.org/10.3390/su142416671>
- Schwartz, S. H. (1973). Normative explanations of helping behavior: A critique, proposal, and empirical test. *Journal of Experimental Social Psychology*, 9(4), 349–364. [https://doi.org/10.1016/0022-1031\(73\)90071-1](https://doi.org/10.1016/0022-1031(73)90071-1)
- Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour: An integrative review and research agenda. *Journal of Environmental Psychology*, 29(3), 309–317. <https://doi.org/10.1016/j.jenvp.2008.10.004>
- Shi, Z., & Zhang, K. (2022). Research on farmers' adoption behavior of green prevention and control technology. *Resources and Environment in Arid Area*, 36(03), 28–35. <https://doi.org/10.13448/j.cnki.jalre.2022.061>
- Swinerd, C., & McNaught, K. R. (2015). Comparing a simulation model with various analytic models of the international diffusion of consumer technology. *Technological Forecasting and Social Change*, 100, 330–343. <https://doi.org/10.1016/j.techfore.2015.08.003>
- Vaske, J. J., Landon, A. C., & Miller, C. A. (2020). Normative influences on farmers' intentions to practice conservation without compensation. *Environmental Management*, 66(2), 191–201. <https://doi.org/10.1007/s00267-020-01306-4>
- Wang, B., et al. (2018). Analysis of factors influencing residents' habitual energy-saving behaviour based on Nam and TPB models: Egoism or altruism? *Energy Policy*, 116, 68–77. <https://doi.org/10.1016/j.enpol.2018.01.055>
- Wang, H., Wang, X., Sarkar, A., & Zhang, F. (2021). How capital endowment and ecological cognition affect environment-friendly technology adoption: A case of apple farmers of Shandong province, China. *International Journal of Environmental Research and Public Health*, 18(14), 7571. <https://doi.org/10.3390/ijerph18147571>
- Wang, Y., Yang, J., Liang, J., Qiang, Y., Fang, S., Gao, M., ... Feng, Y. (2018). Analysis of the environmental behavior of farmers for non-point source pollution control and management in a water source protection area in China. *The Science of the Total Environment*, 633, 1126–1135. <https://doi.org/10.1016/j.scitotenv.2018.03.273>
- Xiong, Y., & He, P. (2020). Impact factors and production performance of adoption of green control technology. *Chinese Journal of Eco-Agriculture*, 28(01), 136–146. <https://doi.org/10.13930/j.cnki.cjea.190673>
- Xue, Y., et al. (2021). Influencing factors of farmers' cognition on agricultural mulch film pollution in rural China. *Science of the Total Environment*, 787. <https://doi.org/10.1016/j.scitotenv.2021.147782>
- Yu, L., Chen, C., & Gao, Y. (2020). Confucian values, trust, and family farm adoption of green control techniques. *Environmental Science and Pollution Research*, 27(28), 35099–35111. <https://doi.org/10.1007/s11356-020-09724-x>
- Yu, L., Chen, C., Niu, Z., Gao, Y., Yang, H., & Xue, Z. (2021). Risk aversion, cooperative membership and the adoption of green control techniques: Evidence from China. *Journal of Cleaner Production*, 279. <https://doi.org/10.1016/j.jclepro.2020.123288>
- Yu, L., Zhao, D., Gao, Y., Yang, H., Xu, W., & Zhao, K. (2021). Spatial dependence of family farms' adoption behavior of green control techniques in China. *Agroecology and Sustainable Food Systems*, 45(5), 767–789. <https://doi.org/10.1080/21683565.2020.1841707>
- Yu, L., Lu, T., Hu, Y. G., Meng, K., & Li, H. (2022). How to improve farmers' green production level in a targeted manner? *Frontiers in Environmental Science*, 639. <https://doi.org/10.3389/fenvs.2022.901844>
- Zeng, J. (2023). The impact of different uses of the internet on professional farmers' adoption of green technology for preventing and controlling diseases and pests: Based on 2544 farmers nationwide. *Journal of Human Agricultural University (Social Sciences)*, 24(3), 35–44. [https://doi.org/10.13331/j.cnki.jhau\(ss\).2023.03.005](https://doi.org/10.13331/j.cnki.jhau(ss).2023.03.005)
- Zhang, H., Wang, M., & Zhuang, T. (2020). Analysis on the willingness to adopt agricultural technology and its heterogeneity in small farmers in poverty-stricken areas. *Journal of Guizhou University of Finance and Economics*, 63, 81–90.
- Zhang, Q., Zheng, S., & Wei, J. (2023). The influence of social network digitization and information capability on farmers' adoption of green prevention and control technology. *Journal of Arid Land Resources and Environment*, 37(9), 46–53. <https://doi.org/10.13448/j.cnki.jalre.2023.208>
- Zhao, P., Yan, B., & Liu, T. (2021). Inverted U-shaped relationship between socio-economic status differences and the diffusion of agricultural green control technologies. *Resources and Environment in Arid Area*, 35(08), 18–25. <https://doi.org/10.13448/j.cnki.jalre.2021.209>
- Zhao, X., Zheng, J., & Zhang, M. (2022). Internal motivation, external environment and farmland waste green disposal behavior of family farms. *Journal of Arid Land Resources and Environment*, 36(3), 9–15. <https://doi.org/10.13448/j.cnki.jalre.2022.058>

9. 《The visual naturalness effect: Impact of natural logos on brandpersonality perception》, International Journal of Consumer Studies, SSCI 收录, 2023.02

Received: 4 November 2021 | Revised: 25 January 2023 | Accepted: 9 February 2023
DOI: 10.1111/ijcs.12912

ORIGINAL ARTICLE

International Journal of Consumer Studies WILEY

The visual naturalness effect: Impact of natural logos on brand personality perception

Tingting Chen¹ | Zhanyong Wu² | Long Hu^{1,3} | Qingcheng Jia¹

¹School of Economics and Trade, Henan Polytechnic Institute, Nanyang, China

²Fanli Business School, Nanyang Institute of Technology, Nanyang, China

³School of Electronic Information Engineering, Henan Polytechnic Institute, Nanyang, China

Correspondence

Zhanyong Wu, Fanli Business School, Nanyang Institute of Technology, Nanyang 473004, China.
Email: wuzhanyong@163.com

Funding information

General Project of Humanities and Social Sciences Research in Universities of Henan Province, Grant/Award Number: 2023-ZZJH-027; Key Project of Educational Science Planning in Henan Province, Grant/Award Number: 2023JKZD41; Research Project of Henan Social Science Association, Grant/Award Number: SKL-2022-2774; Teacher Development Research and Practice Project of Henan Polytechnic Institute, Grant/Award Number: JSFZ202202; Vocational Education Research Project of Henan Polytechnic Institute, Grant/Award Number: 2022ZJYJ12; Science and Technology Project of Science and Technology Department of Henan Province

Abstract

A logo is a critical visual element that uniquely identifies a brand and can affect consumers' brand perceptions. Naturalness reflects the degree to which a sign depicts objects from the natural and sensitive world. The logo strategy literature identifies naturalness as a universal and critical design dimension influencing consumers' cognitive, affective and behavioural reactions. In practice, both high and low natural logos are frequently used by brands. However, the current understanding of the effects of logo naturalness is limited. This research thus investigates the influence of natural logos on consumer perceptions of brand personality. The data were collected in four experiments using a set of 10 manipulated logos as stimuli. Our results suggest that high (vs. low) natural logos positively affect the perception of brand sincerity personality and that this effect occurs because high natural logos are easier to process and elicit stronger impressions of authenticity. Moreover, we demonstrate that the positive effect of logo naturalness is enhanced among brands with products made from natural-made (vs. human-made) ingredients. These findings therefore suggest that brands should avoid using low natural logos if their sincerity perception is critical or if most of their products contain high levels of natural ingredients. Hence, our results reinforce the visual design and branding theories and offer marketing practitioners actionable insights.

KEYWORDS

authenticity, brand personality, logo design, naturalness

1 | INTRODUCTION

Just as consumers have distinct personality characteristics, brands are unique. Brand personality refers to the collection of personality characteristics associated with a brand (Aaker, 1997), representing how consumers judge the brand and what it means to them (Schmitt, 2012). As the official visual expression of a brand, the logo provides a critical visual clue for consumers to identify and interpret brand personality (Henderson et al., 2003). Indeed, many firms spend substantially more on permanent media, such as logos, than on other forms of marketing

communication (Henderson & Cote, 1998). The logo design literature has clearly shown that logos (visual designs that uniquely identify brands) affect consumers' brand personality perceptions (Bajaj & Bond, 2018; Brasel & Hagtvedt, 2016; Luffarelli, Mukesh, et al., 2019). According to how a brand logo image is expressed, its visual presentation mode can be categorized as low-level or high-level (Henderson & Cote, 1998). The former comprises mainly visual design expressions that faithfully present the essential characteristics of real things. The latter consists of Gestalt or graphic design expressions focusing on the richness of brand logos. Most existing studies have focused on the impact of a high-level logo on

This is an open access article under the terms of the [Creative Commons Attribution](#) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2023 The Authors. International Journal of Consumer Studies published by John Wiley & Sons Ltd.



FIGURE 1 Logo comparison of AB InBev and American Airlines.

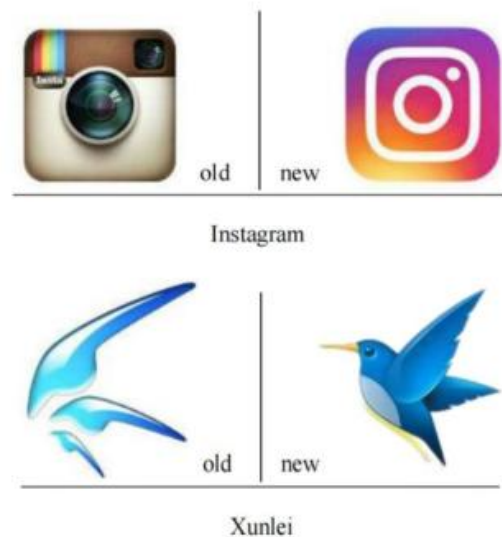


FIGURE 2 Comparison of the old and new logos of Instagram and Xunlei.

consumers' perception of brand personality, for example, dynamic (Brasel & Hagtvedt, 2016), stable (Rahinel & Nelson, 2016), or symmetrical (Bajaj & Bond, 2018; Luffarelli, Stamatogiannakis, et al., 2019). Prior studies have thus provided the sufficient theoretical background for research on the visual marketing of brands and guidance for the selection, design, and modification of brand logos. However, as a visual presentation with a low-level design, the naturalness of a brand logo merits additional attention.

Naturalness reflects the degree to which a logo objectively depicts original, natural objects (Henderson & Cote, 1998; Orth & Malkewitz, 2008). According to the degree of naturalness, the presentation of a logo can be categorized as high or low natural (Henderson & Cote, 1998; Pittard et al., 2007). High natural visual presentation refers to the process of producing original content or objects. Strictly speaking, this form of expression represents the original form of an unrefined natural thing and is the faithful reproduction and imitation of this natural object. The low natural visual presentation generally abstracts and generalizes a natural object's features,

making it difficult for consumers to directly distinguish its original parts and meanings (Henderson & Cote, 1998; Machado et al., 2015). In practice, many brands have adopted two logos with a different level of naturalness. For example, AB InBev uses a high natural logo, while American Airlines uses a low natural logo (see Figure 1). According to their recent development trends and ongoing business needs, some brands arbitrarily switch between high and low natural logos, for example, the Xunlei and INS social platforms (see Figure 2). While high and low natural logos are used by brands, the understanding of the effects of logo naturalness remains limited. Does the naturalness level of a new or updated brand logo match the brand's personality? This is an essential question, not only because it represents a gap in both the marketing literature and the understanding of how consumers interpret visual stimuli but because firms expend vast resources on logos as marketing tools.

Accordingly, in this paper, we address this question by examining how and when logo naturalness impacts brand personality. Building on the literature that shows stimuli that are more familiar and effective in the processing are perceived to be more trustworthy (Reber & Unkelbach, 2010) and that trustworthiness is a key dimension of perceived brand sincerity (Machado et al., 2021), we demonstrate that high (vs. low) natural logos tend to be perceived as more authentic, and thus more congruent, among brands with a sincere personality. Because a product is an important carrier of a brand's logo, we show that the positive effect of logo naturalness on brand sincerity is enhanced for brands with products made from natural-made (vs. human-made) ingredients. Our empirical findings therefore not only extend previous results in logo-related research but contribute to visual communication studies in general. Furthermore, our theory and findings establish connections between the logo-related literature and a newly developing stream of art-related research as well as a broader stream of aesthetics research. Hence, brand managers should treat the level of naturalness as an essential consideration when their companies select, design, or change brand logos, a key managerial guideline based on our results.

2 | LITERATURE REVIEW AND RESEARCH HYPOTHESES

2.1 | The effect of brand logo naturalness on brand personality

Brand logo and brand personality are two closely related variables. On the one hand, a logo is the basis of communication between a brand and consumers, which helps create an ideal brand personality (Aaker et al., 2004; Grohmann et al., 2013; Henderson et al., 2003). On the other hand, when a brand's personality matches the design features of its logo, this can elicit more positive consumer behaviours or responses (Luffarelli, Mukesh, et al., 2019; Luffarelli, Stamatogiannakis et al., 2019). Brand personality consists of five dimensions: sincerity, excitement, competence, sophistication and ruggedness (Aaker, 1997). Based on Aaker (1997), Aaker et al. (2004) and Mæhle and Supphellen (2011) have noted that effective single-source marketing incentives usually cannot convey information

about every dimension of brand personality. To create an ideal brand personality, brand managers must start with specific dimensions instead of a general personality. The sincerity of brand personality has been a fundamental variable in prior marketing studies (Aaker et al., 2004; Mahmood et al., 2019) and is still widely used across industries. The sincerity dimension of personality includes rule-following, honesty, trustworthiness and friendliness. We therefore associate logo naturalness with the brand sincerity personality in this research on potential perceptions.

The visual presentation of a brand logo provides a crucial visual clue for consumers to interpret brand personality because they spontaneously generate psychological images related to the brand according to feedback on visual brand logo information (Jiang et al., 2016; Krishna et al., 2017; MacInnis & Price, 1987). Hence, it plays an essential role in consumers' cognition and decision-making process. Naturalness is a critical aspect of the visual presentation of a brand logo. Deviations in consumers' visual perceptions of brand logos with different naturalness levels may lead to disparate interpretations of logo information, which have differential impacts on brand personality. A high natural logo faithfully reproduces and imitates the original form of a natural object (Henderson & Cote, 1998) and is very intuitive and vivid; thus, consumers require little effort to recognize such a brand logo (Hynes, 2009; Machado et al., 2015). Previous studies have shown that high natural logos are more conducive to consumers' smooth information processing (Paulhus & Lim, 1994) and that the fluency of such processing process encourages consumers to interpret brand attributes (Schwarz, 2004).

Because individuals hold a metacognitive belief, that is, information processing fluency is diagnostic of truth, stimuli that are easier to process tend to be perceived as more trustworthy (Luffarelli, Mukesh, et al., 2019). For example, since packaging with leaf patterns is consistent with the characteristics of leaves according to consumers' mental images, consumers feel that brands using such images on their packaging are close to nature, trustworthy and honest (Grohmann et al., 2013). Thus, consumers might judge brands with high natural logos to be more trustworthy and honest, as high (vs. low) natural logos are easier to process. In addition, because the graphics of a high natural logo lack human interventions and artificial elements, consumers cannot avoid thinking that such a logo's brand is conformist, pragmatic and straightforward (Machado et al., 2021; Mahmood et al., 2019; Pracejus et al., 2006). Research has shown that consumers view a brand as sincere when they believe represents what it appears to be, that is, is pure and trustworthy (Mahmood et al., 2019). Thus, our first hypothesis is as follows:

HYPOTHESIS 1. Compared to low natural logos, high natural logos have a more positive impact on consumers' perception of a sincere brand personality.

2.2 | The mediating role of brand logo authenticity

Consumers have prior knowledge structures of natural objects, namely, schemas (Mandler, 1982). These schemas can inform consumers'

expectations regarding natural forms and thus influence their processing and retrieval of information (Meyers-Levy & Tybout, 1989). Regarding consistency, schemas are relatively easy to understand and process, and they do not cause additional excitement; thus, they are likely to lead to mild emotional responses (Yoon, 2013). High natural logos are replicas of real things (Henderson & Cote, 1998) and are consistent with the schemas of these things that consumers recall (Machado et al., 2015; Yoon, 2013), quickly arousing their sense of familiarity (Machado et al., 2015; Yoon, 2013) and stimulating their perception of authenticity. The concept of authenticity generally captures the 'dimensions of truth or verification' (Newman, 2019) and 'encapsulates what is genuine, real or true' (Beverland & Farrelly, 2010). Thus, the terms 'authentic' and 'authenticity' carry connotations of authoritative certification, that is, an object is what it is claimed to be (Kreuzbauer & Keller, 2017). Perceived authenticity evolves from design cues and their coherence, trustworthiness and credibility (Nunes et al., 2021). This is in line with the 'iconic authenticity' discussed by Grayson and Martinec (2004); if a story or lifestyle is real, its design cues may be regarded as iconic representations of it and thus evoke perceived authenticity.

Accordingly, we define brand logo authenticity as the evaluation, judgement or assessment of how natural or genuine a logo is in terms of its appearance, content and meaning (Guèvremont & Grohmann, 2016; Valsesia et al., 2016). Brand logo authenticity seems particularly important for contemporary consumers and their brand evaluations (Cinelli & LeBoeuf, 2020). It offers trustworthiness and reliability to a brand and ensures that the brand is what it promises to be. Consumers desire visual cues that convey iconic authenticity (Guèvremont & Grohmann, 2016) and use this as a basis for brand perception and evaluation (Morhart et al., 2015). For example, the authentic visual design encourages consumers to establish impressions such as brand trust (Beverland & Farrelly, 2010; Stanton et al., 2016). In terms of how consumers view a brand represented by its logo, the concept of authenticity is easier to understand if the brand has a more natural logo. One possible result of this is that the brand in question is imagined to be pragmatic and sincere; these characteristics are more consistent with the sincerity dimension of personality (Nguyen et al., 2016). Building on the above literature, we propose that since high natural logos are often viewed as more authentic than low natural logos and sincerity is associated with higher levels of authenticity, consumers judge brands with high natural logos to be more pragmatic and sincere. We thus hypothesize the following:

HYPOTHESIS 2. Compared to low natural logos, high natural logos make consumers feel more authentic; thus, they believe that brands using such logos are more aligned with sincere personality characteristics.

2.3 | The moderating role of product type

The marketing literature shows that the visual presentation of a brand's logo affects consumers' interpretation of the brand's personality (Bettels & Wiedmann, 2019; Cian et al., 2014; Van Grinsven & Das, 2016). This consumer response is related not only to the specific

attributes of a brand (Fajardo et al., 2016; Wei et al., 2018) but may be affected by the firm's product types (Rahinel & Nelson, 2016). Consumers usually refer to relevant attributes (such as products) when inferring a brand personality via visual clues in its logo (Sharma & Varki, 2018). According to their ingredients, products can be categorized as having natural or human-made ingredients (Rozin et al., 2004). Natural products contain materials found in nature whose properties have not been modified; products containing human-made ingredients are made mainly from materials manipulated by humans to imitate natural materials or from newly created materials that do not exist in nature (Ji, 2010; Zhang, 2007). Generally, products with natural ingredients mainly convey the natural properties of these ingredients, usually to meet consumer demands for closeness to nature, such as wood, cotton and linen products and natural foods (Overvliet & Soto-Faraco, 2011). In contrast, products with human-made ingredients mainly convey their experience or value; usually, these products meet consumer needs for unique sensory experiences, such as artificially processed foods, glass and digital products (Gomez, 2015).

Consumers perceive product naturalness as a synonym for health, freshness, quality and good agricultural practice (Lunardo & Saintives, 2013; Magnier et al., 2016; Scott et al., 2020; Siegrist & Sütterlin, 2017). Product naturalness is represented by two main dimensions: (1) the absence of specific, undesirable process characteristics that suggest an unnatural character, particularly related to the use of additives and other undesirable ingredients; and (2) references to purity, greenness and an organic nature (Charnpi et al., 2021). Consumers generally consider natural products more natural and credible while lacking too much human intervention (Hemmerling et al., 2016). Consistent with the demand that natural products primarily contain ingredients that mainly come from nature rather than artificial sources, a high natural logo depicts an authentic form as clearly as possible and avoids artificial elements. According to the literature, people are 'sense makers' who spontaneously develop hypotheses for questions that arise and always ask why products have certain characteristics (Biliciler et al., 2022). Hence, when they encounter a brand's logo, they might question why the brand's product uses a particular logo design. The concept of fit fluency suggests that when there is high congruence between two parties, people generate higher processing fluency concerning them, which results in enhanced evaluation (Song et al., 2022). In our case, when a brand with a more natural product uses a high natural logo, its consistency improves consumers' information processing

fluency due to this high natural logo's information (Martindale et al., 1990) and thus, their more favourable brand awareness and evaluation (Grewal et al., 2019). Accordingly, we expect that natural products are better suited to authentic high natural logos and that this fit is more conducive to consumers' judgement of a sincere brand personality. Therefore, our third hypothesis is as follows:

HYPOTHESIS 3. Compared to products made from human-made ingredients, products made from natural ingredients matched with high natural logos positively impact the perception of a sincere personality.

Based on the above hypotheses, our research framework is illustrated in Figure 3.

3 | EXPERIMENT 1

3.1 | Participants and design

In Experiment 1, we selected a new and old brand logo of the ANT GROUP. Interestingly, both the new and old logos of this brand have an image of an ant. The ant on the old logo is more specific and authentic and has a higher degree of naturalness, while the ant on the new logo is more abstract and less natural (see Figure 4). This research was carried out on Credamo, an online survey platform that is widely used in the field of scientific research in China. Nonstudent samples ($N = 72$; 39 men, $M_{age} = 24.6$) from Beijing and Wuhan were randomly assigned to brand logo groups with different naturalness levels. The subjects were first told that they would be shown the brand logo of a service firm, and then they were asked to observe and report the level of sincere brand personality they perceived, including the dimensions of conformity, honesty, sincerity and friendliness ($\alpha = .87$; Aaker, 1997).

3.2 | Results

3.2.1 | Manipulation checks

Experiment 1 mainly involved a manipulation test on the naturalness of brand logos, and its results showed that the average score of the high natural logo ($M = 4.86$) was significantly higher than that of the

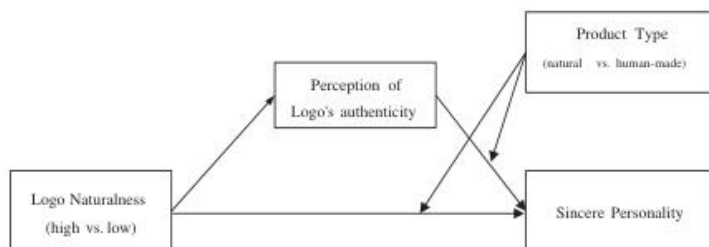


FIGURE 3 Research framework.



FIGURE 4 The logo manipulation materials in Experiment 1.

low natural logo ($M = 3.78$). In this experiment, brand logo naturalness was therefore manipulated successfully ($t(70) = 11.852, p < .01$).

3.2.2 | Perception of sincere brand personality

Next, in support of Hypothesis 1, we used logo naturalness as an independent variable and sincere personality perception as a dependent variable, and we conducted a one-way ANOVA. These data show that brand logo naturalness has a main effect on sincere brand personality ($F(1, 70) = 8.357, p < .01$, partial $\eta^2 = .107$). Compared to the impact of the low natural logo ($M = 3.833$), the high natural logo had a more positive influence on sincere personality perception ($M = 4.243$). In addition, we carried out an independent sample t test on a group of control variables. These results show that the familiarity ($M = 3.82$), aesthetic feeling ($M = 4.81$), liking degree ($M = 5.01$) and complexity ($M = 4.21$) of the low natural logo and the familiarity ($M = 3.76$), aesthetic feeling ($M = 4.89$), liking degree ($M = 4.96$) and complexity ($M = 4.47$) of the high natural logo showed no significant difference between the two groups (all $p > .1$). We further confirmed that the positive influence of a high (vs. low) natural logo on the perception of brand sincerity was not caused by the participants' high evaluation of a brand logo.

3.3 | Discussion

The results of Experiment 1 show that high (vs. low) natural logos can elicit stronger impressions of brand sincerity and that the ease of processing underlies this effect. Notably, the logos selected in Experiment 1 belong to a brand without physical products. Thus, whether the conclusions in Experiment 1 are valid for brands with physical products merits further discussion. Next, we therefore investigated a brand with physical products. While verifying the main effect, this experiment tested the mediating role of the perception of brand logo authenticity and eliminated the interference of the correlation degree between brand logo and product, that is, it fully demonstrated the rationality of logo authenticity perception as a mediating variable.

4 | EXPERIMENT 2

4.1 | Participants and design

In Experiment 2, the virtual brand Pinguan Dairy Firm was used as an example, and two of its logos, a group of cow images (high correlation

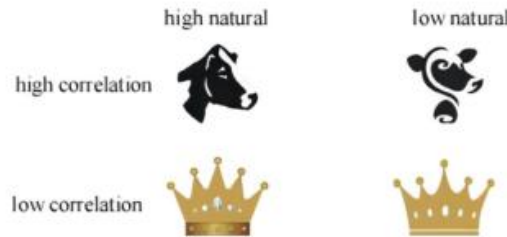


FIGURE 5 The logo manipulation materials in Experiment 2.

with brand products) and crown images (low correlation with brand products), with different naturalness levels were selected (see Figure 5). A two-factor simple intergroup design was adopted: 2 (brand logo naturalness: low vs. high) \times 2 (logo and brand product correlation: low vs. high) situational experiments to test Hypothesis 1 and Hypothesis 2.

Similar to Experiment 1, Experiment 2 was conducted on Credamo, a Chinese research platform, and 176 individuals from Beijing and Wuhan participated in this survey. In contrast to Experiment 1, the participants in Experiment 2 were all college students (69 males, accounting for 39.2%, with an average age of 24.5 years). The participants were randomly assigned to different brand logo groups and told that they would be shown a logo for a dairy firm called Pinguan. After viewing the relevant brand logo, the subjects were asked to report their perception of the logo's authenticity and their views on brand personality through a 7-point Likert scale. Our brand logo authenticity scale ($\alpha = .86$) was adapted from Valsesia et al. (2016) and mainly tested the subjects' views on brand logos regarding authentic appearance, perfect content and accuracy of expressed meaning. Then, the subjects were required to report their views on the relationship between these brand logos and the brand's products.

4.2 | Results

4.2.1 | Manipulation checks

This experiment mainly tested the naturalness of brand logos and the correlation between logos and brand products. Its results showed that the average score of high natural logos ($M = 4.69$) was significantly higher than that of low natural logos ($M = 3.66$). The experiment thus successfully manipulated brand logo naturalness ($t(174) = 10.484, p < .01$). The independent-sample t -test results showed that the degree of correlation between the cow image logos and dairy brand products was perceived by the subjects ($M = 4.57$) to be more statistically significant than that between the crown image logo and dairy brand products ($M = 3.73$). The manipulation of the degree of correlation between brand logos and brand products in this experiment was therefore successful ($t(174) = 11.775, p < .01$).

4.2.2 | Perception of sincere brand personality

To support Hypothesis 1, we used the naturalness of the brand logo as an independent variable and sincere brand personality perception as a dependent variable, and we conducted a one-way ANOVA. The results of this variance analysis showed that brand logo naturalness had a main effect on sincere brand personality perception ($F(1, 174) = 20.642, p < .01$, partial $\eta^2 = .106$). Specifically, the influence of a high natural logo on sincere personality perception ($M = 4.25$) was statistically more significant than that of a brand logo with a low natural logo ($M = 3.89$). In addition, we carried out an independent sample *t* test on a group of control variables. These results showed no significant difference in familiarity, aesthetic feeling, liking or complexity between the two groups (all $p > .1$). We thus further confirmed that the positive influence of a high (vs. low) natural logo on personality perception of brand sincerity was not caused by the participants' high evaluation of the brand logo.

Then, we carried out a 2 (naturalness of logo: low vs. high) \times 2 (correlation between logo and product: low vs. high) variance analysis with brand personality perception as the dependent variable. The interaction effect between these two was not statistically significant ($F(1, 172) = 0.405, p = .526$), indicating that whether the cow image logo had a high correlation with the product or the crown image logo had a low correlation with the product had no favourable influence on brand sincerity perception.

4.2.3 | The mediating role of brand logo authenticity

According to Hypothesis 2, the perception of a logo's authenticity mediates the influence of brand logo naturalness on the perception of sincere

personality. The mediating effect test procedure was as follows: We referred to the mediating effect test and analysis procedure of Zhao et al. (2010) and the general mediating effect analysis model (Model 4) of Preacher and Hayes (2004) to perform our mediating effect test by the bootstrap method. Specifically, we estimated 5000 repeated samples using the self-help method (Preacher & Hayes, 2004) and found that the mediating effect of brand logo authenticity perception was 0.489 ($SE = 0.160$, 95% confidence interval $[CI] = 0.191-0.821$) in the cow image logo context (see Figure 6). In the crown logo context, the mediating effect of the perception of brand logo authenticity was 0.296 ($SE = 0.096$, 95% $CI = 0.127-0.499$) (see Figure 7). The CI did not contain 0, indicating that the indirect effect was statistically significant. Accordingly, this finding confirmed that the perception of brand logo authenticity mediates the positive influence of a high natural logo on the perception of a sincere brand personality, supporting Hypothesis 2.

4.3 | Discussion

Experiment 2 preliminarily verified the mediating role of brand logo authenticity. Moreover, a more important finding in Experiment 2 is that when a brand replaces its physical products, when there is a high degree of correlation between the brand logo and products, the positive impact of logo naturalness on the perception of the brand's sincerity remains valid; hence, these data further support Hypothesis 1. In addition, this study's primary effect was still reasonable amid the lack of a strong correlation between a crown logo and a dairy firm, rejecting the suggestion that logo and product correlation have a significant impact on this primary effect. However, consumers' interpretation of a brand's personality is usually based on the visual clues transmitted by the brand's logo and whether a product matches the naturalness of this logo. Therefore, we continued this study and carried out Experiment 3.

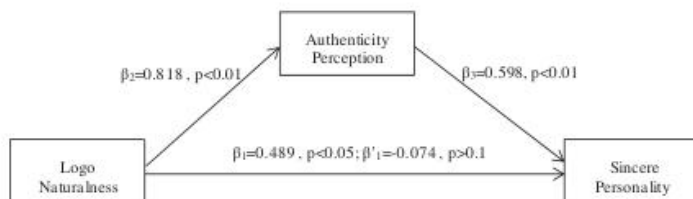


FIGURE 6 The mediation path of logo authenticity (cow pattern logo context).

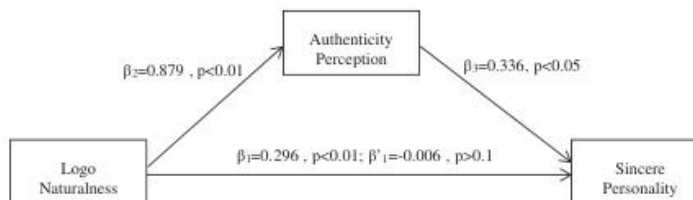


FIGURE 7 The path of logo authenticity (crown pattern logo context).

5 | EXPERIMENT 3

5.1 | Participants and design

First, we divided products into those made with natural ingredients and those made with human-made products based on a narrow product classification method, that is, containing purely natural ingredients or purely human-made ingredients (Gomez, 2015; Rozin et al., 2004). Experiment 3 was based on this conventional classification method. Using the virtual brands Senji Wood Tableware Firm and Edgar Glass Tableware Firm as examples, a group of logos with images of small trees with different naturalness levels (low natural vs. high natural) were selected (see Figure 8), and a two-factor simple intergroup design was adopted: 2 (logo naturalness: low vs. high) \times 2 (product type: natural ingredient products vs. human-made ingredient products). Similar to Experiments 1 and 2, Experiment 3 was conducted on Credamo, a Chinese research platform. Unlike the first two experiments, Experiment 3 expanded our sample coverage from first-tier cities to second-tier, third-tier and fourth-tier cities to test the results in the previous two studies with a broader sample.

A total of 184 effective nonstudent samples (65 males, accounting for 35.3%, with an average age of 25.7 years) participated in this online experiment. Participants were randomly assigned two brand logos with different naturalness levels (low natural vs. high natural) and different product categories (natural group: wooden bowl vs. human-made group: glass bowl) and were told that these logos were for a wooden tableware firm (or glass tableware firm). The characteristics of the wooden bowl (or glass bowl) were briefly introduced, and the subjects were required to report their views on the product attributes and brand personality on a 7-point Likert scale after viewing the relevant brand logos. This evaluation of product attributes ($\alpha = .83$) resembles the research of Gomez (2015), and the sincere brand personality measurement criteria were consistent with those in Experiment 1 (Figure 8).

5.2 | Results

5.2.1 | Manipulation checks

Experiment 3 mainly tested the naturalness of brand logos and product types. The results showed that the average score of high natural logos ($M = 4.84$) was significantly higher than that of low natural logos ($M = 3.73$). The experiment thus successfully manipulated brand

logo naturalness ($t(182) = 18.291, p < .01$). The results of the independent sample t-test showed that the score of the products made with natural ingredients ($M = 5.14$) was significantly higher than that of the products made with human-made ingredients ($M = 3.64$); hence, the manipulation of product types in this experiment was successful ($t(182) = 33.159, p < .01$).

5.2.2 | Perception of sincere brand personality

Next, to support Hypothesis 1, we used brand logo naturalness as an independent variable and perceived sincere brand personality as a dependent variable, and we conducted a one-way ANOVA. These data showed that brand logo naturalness had a prominent effect on sincere personality perception ($F(1, 182) = 42.153, p < .01$, partial $\eta^2 = .188$). Specifically, the influence of a more natural logo on sincere brand personality perception ($M = 4.46$) was more statistically significant than that of a less natural logo ($M = 3.96$). In addition, to exclude the influence of brand logo naturalness on brand personality perception from other subjective basic attitudes toward brand logo design, we carried out an independent sample t test on a group of control variables. These results showed no significant difference in terms of the familiarity, aesthetic feeling, affection and complexity of the two types of brand logos among the different groups (all $p > .1$).

5.2.3 | The moderating role of product type

Next, to verify the influence of brand logo naturalness and product type match on sincere brand personality perception, we conducted a 2 (brand logo naturalness: low vs. high) \times 2 (product: wooden bowl vs. glass bowl) variance analysis with brand personality evaluation as the dependent variable and confirmed that the interaction effect between the two was statistically significant ($F(1, 180) = 5.200, p < .01$, partial $\eta^2 = .123$). Thus, the results of the simple main effect analysis showed that for the glass bowl, there was no significant difference in the influence ($F(1, 180) = 2.670, p = .104$, partial $\eta^2 = .015$) of the high natural logo on sincere personality perception ($M = 4.11$) or the low natural logo on sincere personality perception ($M = 3.95$). For wooden bowls, the influence of a more natural logo on sincere personality perception ($M = 4.80$) was more favourable ($F(1, 180) = 76.270, p < .01$, partial $\eta^2 = .298$) than that of a less



FIGURE 8 The logo and product manipulation materials in Experiment 3.

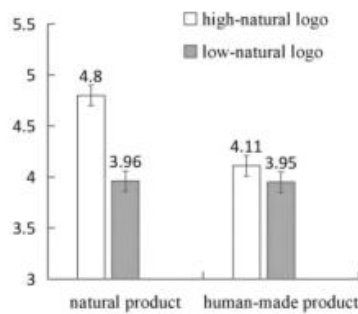


FIGURE 9 The interaction effect of logo naturalness and product type on sincere personality.

natural logo ($M = 3.96$). More importantly, the effect of the wood bowl with a high natural logo on sincere brand personality perception ($M = 4.80$) was more favourable ($F(1, 180) = 52.013, p < .01$, partial $\eta^2 = .224$) than that of the glass bowl with a high natural logo ($M = 4.11$). Therefore, these data better support Hypothesis 3 (see Figure 9).

5.3 | Discussion

Experiment 3 showed that the products made with natural ingredients were more consistent with a high natural logo, which strongly verified Hypothesis 3. However, Experiment 3 may have had some limitations. According to previous marketing studies, the classification of products as natural or products can be based on a broad product classification method. That is, there are generalized human-made ingredient products with a large number of synthetic ingredients but very few natural ingredients (Overvliet & Soto-Faraco, 2011). Although such products often use naturalness as a selling point, it is easy to mislead consumers' judgement of product attributes, adversely affecting their brand personality perception. For this reason, we carried out supplementary Experiment 4, using a product type manipulation method, different from that used in Experiment 3, to reproduce our previous experimental results.

6 | EXPERIMENT 4

6.1 | Participants and design

Experiment 4 used the virtual brands of Mingya Tea Firm and Youyuan Beverage Firm as examples. A group of logos with tea images with different naturalness levels were selected (see Figure 10), and a two-factor simple intergroup design was adopted: a 2 (naturalness of brand logos: low vs. high) \times 2 (product type: natural ingredient products vs. human-made ingredient products) method to test Hypothesis 1, Hypothesis 2 and Hypothesis 3 via the situational experiment method. To enhance the generalizability of our results in the previous situational experiments, the questionnaire survey in Experiment 4 was conducted on the data survey platform Questionnaire Star, another data research platform widely used by scientific research fields and many enterprises in China. The research objectives covered different occupations, ages, income levels, educational levels, regions, etc. Through this platform, this study could verify the hypotheses we had already explored in various educational situations and effectively improve the external validity of our experimental results.

A total of 216 effective individuals (91 males, accounting for 42.1%, with an average age of 25.1 years) participated in this online experiment. The participants' ages ranged from 17 to 55 years, with the majority of them in the 20–30 age group (56.5%). In terms of educational composition, 3.4% had high school and below, 21.5% attended college, 47.5% earned a bachelor's degree and 27.6% were postgraduates. In terms of occupational distribution, full-time students accounted for 39.2% of the sample, ordinary workers accounted for 19.8%, enterprise managers accounted for 8.0%, government officers accounted for 4.5%, individual business operators accounted for 9.5%, freelancers accounted for 13.7% and others accounted for 5.3%. The most frequently reported category for annual income was 3500–5000 RMB (53.2%). Participants in the experiment were randomly assigned two brand logos with different naturalness levels (low natural vs. high natural) and different product categories (natural group: green tea vs. human-made group: tea beverage). The subjects were informed that this was a tea firm (or beverage firm), briefly introduced to the ingredients and characteristics of its green tea (or tea beverage) products and then asked to answer a series of experimental questions after viewing the relevant brand logos (Figure 10).



FIGURE 10 The logo and product manipulation materials in Experiment 4.

6.2 | Results

6.2.1 | Manipulation checks

Experiment 4 mainly tested brand logo and product type naturalness. The results showed that the average score of the high natural logos ($M = 4.72$) was higher, to a statistically significant extent than that of the low natural logos ($M = 3.65$). This experiment thus successfully manipulated brand logo naturalness ($t(214) = 16.969, p < .01$). The results of the independent sample *t*-test showed that the score of the products containing natural ingredients ($M = 4.76$) was higher, to a statistically significant extent than that of products with human-made ingredients ($M = 3.70$); hence, the manipulation of product types in this experiment was successful ($t(214) = 39.316, p < .01$).

6.2.2 | Perception of sincere brand personality

Then, in support of Hypothesis 1, we used brand logo naturalness as an independent variable and sincere brand personality perception as a dependent variable, and we conducted a one-way ANOVA. These data show that brand logo naturalness had a primary effect on sincere brand personality perception ($F(1, 214) = 60.952, p < .01$, partial $\eta^2 = .222$). Specifically, the influence of the high natural logo on sincere personality perception ($M = 4.37$) was more potent, by a statistically significant measure, than that of the logo with a low natural logo ($M = 3.96$). In addition, we performed an independent sample *t*-test on a group of control variables. These results showed no significant difference in terms of familiarity, aesthetic feeling, liking and complexity among the different groups (all $p > .1$), which further confirms that the positive influence of a high (vs. low) natural logo on brand sincerity personality perception is not caused by the high evaluation of brand logo.

6.2.3 | The moderating role of product type

Next, to verify the influence of the match between logo naturalness and product type on sincere personality perception, a 2 (logo naturalness: low vs. high) \times 2 (product: green tea vs. tea beverage) variance analysis was conducted. These results confirmed that the interaction effect between the two variables was statistically significant ($F(1, 212) = 53.029, p < .01$; partial $\eta^2 = .200$).

Moreover, the results of a simple primary effect analysis showed that for human-made tea beverages, the influence of a high natural logo on sincere personality perception ($M = 4.05$) and that of a low natural logo on sincere personality perception ($M = 3.94$) were statistically nonsignificant ($F(1, 212) = 2.775, p = .097$, partial $\eta^2 = .013$). For natural green tea, the effect of a high natural logo on sincere brand personality perception was more favourable ($F(1, 212) = 143.145, p < .01$, partial $\eta^2 = .403$) than that of using a low natural logo.

In addition, the influence of natural green tea with a high natural logo on sincere personality perception was more favourable

($F(1, 212) = 113.999, p < .01$, partial $\eta^2 = .350$) than that of human-made tea beverages with a high natural logo. This showed that when a high natural brand logo was matched with natural products, the impact on sincere personality perception was more optimistic. Hence, these data further support Hypothesis 3.

6.2.4 | The mediating role of brand logo authenticity

According to Hypothesis 2, the perception of brand logo authenticity mediates the influence of brand logo naturalness on sincere brand personality perception. Our mediating effect test procedure was as follows: We referred to the mediating effect test and analysis of Zhao et al. (2010) and the mediating effect analysis model (Model 8) of Preacher and Hayes (2004) to conduct the mediating effect test by the bootstrap method. Specifically, we estimated 5000 repeated samples by using the self-help method (Preacher & Hayes, 2004). We found that amid the moderation of product type, the mediating effect of brand logo authenticity perception was 0.095 ($SE = 0.058$, 95% $CI = 0.007$ – 0.229). The CI did not contain 0, indicating a statistically significant moderating and mediating effect.

Specifically, for natural green tea, the intermediary effect was 0.530 ($SE = 0.134$, 95% $CI = 0.275$ – 0.809), and the CI did not contain 0, indicating that the indirect effect was statistically significant; for human-made tea beverages, the intermediary effect size was 0.435 ($SE = 0.093$, 95% $CI = 0.246$ – 0.617), and the CI did not contain 0, indicating that the indirect effect was statistically significant. In other words, we found that the perception of brand logo authenticity mediates the influence of brand logo naturalness on consumers' sincere brand personality perception, further supporting Hypothesis 2 (see Figure 11).

6.3 | Discussion

Experiment 4 was based on a new manipulation method of product type. It thus further confirmed the differentiated influence of the match of brand logo naturalness (low vs. high) and product type (products containing natural ingredients vs. products containing human-made ingredients) on the perception of brand personality and validated the results of our previous studies. In summary, all of our hypotheses have been supported.

7 | GENERAL DISCUSSION

7.1 | Conclusion and contribution

This paper explores the influence of brand logo naturalness on consumers' perception of brand personality based on visual image theory and schema theory. We show that high (vs. low) natural logos positively affect the perception of brand personality sincerity and that this

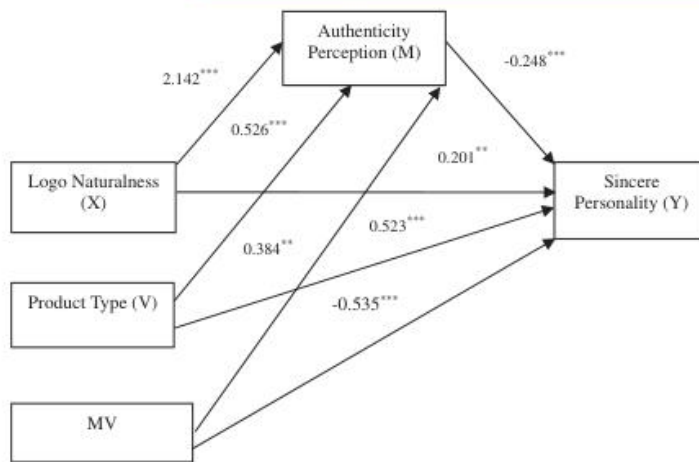


FIGURE 11 Intermediary action path of brand logo authenticity perception. ns means $p > .1$, ** means $.01 < p < .05$, *** means $p < .01$.

effect occurs because high natural logos are easier to process and thus elicit stronger impressions of authenticity. Moreover, we demonstrate that the positive effect of logo naturalness is enhanced for brands that market a type of product associated with more natural ingredients (vs. human-made ingredients) in consumers' minds. The overall theoretical contribution of this paper is thus mainly reflected in the following aspects:

First, we document the positive influence of logo naturalness on brand personality, highlighting the importance of naturalness as a potent design characteristic and extending the knowledge on the effects of marketing stimuli's visual design on brand personality. Previous studies have focused on the characteristics of high-level visual representation in logos regarding consumer cognition (Brasel & Hagtvædt, 2016; Luffarelli, Stamatogiannakis, et al., 2019; Rahinel & Nelson, 2016). As a low-level visual design form, the naturalness of brand logos has not received enough attention. Accordingly, based on visual image theory, we propose that consumers spontaneously generate brand-related images when considering brand logos' natural visual presentation information. Moreover, compared to low natural logos, high natural logos are more likely to encourage consumers to imagine a brand is regular, pragmatic and straightforward, with a sincere personality. This conclusion reveals that the visual presentation of brand logos with different naturalness levels has differentiated impacts on consumers' perception of brand personality, a valuable supplement to the literature on the low-level presentation of brand logos.

Second, this paper expands the research on the explanation mechanism of the visual presentation of brand logos in consumers' brand personality perception. Previous studies (Machado et al., 2015; Torres et al., 2019) on the visual naturalness effect have seldom examined whether there are other visual processing methods for brand logos with varying naturalness levels. Therefore, based on schema theory, we reveal the intermediary role of authenticity perception among consumers in terms of the influence of brand logo naturalness on brand personality perception. Our results fully

demonstrate that consumers spontaneously generate brand-related images when processing the visual presentation of information in logos and that they fully use the logo perception and association activated by the nature of brand logos in their image-generation process. Furthermore, our work establishes a link between ease of processing and perceived authenticity, thereby adding to the knowledge on the role of fluency in the design of marketing stimuli (Sundar & Noseworthy, 2014) and the effect of processing ease on authenticity perception (Reber & Unkelbach, 2010; Schwarz, 2004). Moreover, by demonstrating that high natural logos can communicate impressions of authenticity, our work adds logo naturalness, and more broadly, logo design, to the list of the known antecedents of perceived brand sincerity (Machado et al., 2021; Mahmood et al., 2019; Pracejus et al., 2006).

Third, this paper complements the research on the influence of brand logos and product type matching on brand personality perception. Most of the literature focuses on how brand logo elements (Aaker et al., 2004; Grohmann et al., 2013; Henderson et al., 2003) and product types or hierarchy (Kum et al., 2012) affect consumers' cognition and understanding of different dimensions of brand personality. However, a product is an essential carrier of its brand's logo, and thus product type should match the style of the brand logo. Notably, logo naturalness and logo-product congruence can correlate because high (vs. low) natural logos can evoke a greater number of associations that relate to a brand's products and thus result in higher perceived congruence. In addition, logo naturalness and logo-product congruence can have parallel effects on brand personality because logo-product congruence can stimulate more favourable consumer responses. Therefore, we have examined the influence of product type and brand logo naturalness match on consumers' brand personality perception. The application scope of a brand logo's visual naturalness effect is deepened based on the level of product type; this finding expands and supplements the literature on brand logos and the effects of product type matching on

brand personality perception and opens new paths for theoretical research on brand personality.

7.2 | Managerial implication

While high and low natural logos are used by brands, practitioners might not fully exploit the advantages of the potential benefits of logo naturalness. Our results have abundant managerial implications for brand managers who select, design and modify brand logos. Our work suggests that practitioners should consider using high natural logos for three reasons. First, consumers can view and process high natural logos more easily, an advantage in cluttered and competitive markets where consumers are exposed to a plethora of marketing stimuli. Second, high natural logos can elicit stronger impressions of authenticity, which consumers often value. Third, high natural logos positively affect consumers' evaluation of brand personality. In marketing practice, if brand managers want to create a sincere (regular, honest, sincere and friendly) personality image in consumers' minds, they should therefore not use low natural logos. When logo authenticity perception is critical to consumers' brand expectations, it is best to prioritize high natural logos.

Our findings suggest that brand managers should choose logos with naturalness levels according to product type. In marketing practice, if a brand consists mainly of products composed of artificial ingredients, brand managers should avoid using high natural logos. In contrast, if a brand's products are mainly made from natural ingredients, brand managers should choose logos that are as natural as possible to show the sincere personality characteristics of their brand. In conclusion, what is most appropriate is the best option. When matched well, the naturalness scheme of a firm's brand logo and the strategic positioning and product portfolio of its business ideally create a synergy, leaving harmonic and powerful impressions in consumers' minds.

More importantly, if a logo's naturalness does not match its brand's personality, it is necessary to consider redesigning or modifying the logo. Regardless of whether a brand is new or old, the choice and design of its brand logo must be considered, especially in the modification of the brand's logo, which is indeed a widespread practice in fiercely competitive environments. It is common for well-established firms to occasionally modify their logos, but such marketing strategies and efforts often run counter to consumers' expectations of brands. Making the wrong change to a logo exposes its brand to ridicule, but making a suitable change to a brand's logo is a win-win situation.

7.3 | Limitations and direction

This paper comprehensively analyzes the influence of brand logo naturalness on sincere brand personality perception. Our findings suggest several directions for future research. For example, different types of consumers may have distinct visual processing methods for the same brand logo. Future research can thus further investigate whether

consumer type regulates the visual naturalness effect of brand logos. In addition, because logos are composed of a multitude of design characteristics, future studies could examine whether logo naturalness interacts with other design characteristics. Furthermore, consumers' perceptions of visual naturalness may vary due to disparate cultural values. Future research can therefore explore the differences in consumer perceptions of brand personality using a cross-cultural background. Moreover, a higher level of consistency among brand elements may elicit more positive consumer responses. Hence, future studies could further explore whether matching brand personality characteristics with a selected logo's naturalness level has additional effects on brand evaluation and market financial performance.

AUTHOR CONTRIBUTIONS

Both authors contributed to editing the manuscript throughout the whole writing process.

ACKNOWLEDGEMENTS

This work was supported by the General Project of Humanities and Social Sciences Research in Universities of Henan Province under Grant 2023-ZZJH-027, the Key Project of Educational Science Planning in Henan Province under Grant 2023JKZD41, the Research Project of Henan Social Science Association under Grant SKL-2022-2774, the Teacher Development Research and Practice Project of Henan Polytechnic Institute under Grant JSFZ202202, the Vocational Education Research Project of Henan Polytechnic Institute under Grant 2022ZJYJ12, and the Science and Technology Project of Science and Technology Department of Henan Province (Research on the Mechanism and Path of Green Finance Helping Henan Ecological Product Value Realization under the Goal of "Double Carbon"). The funders had no role in the study design, data collection and analysis, decision to publish, or preparation of the manuscript.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that supports the findings of this study are available in the Supporting Information of this article.

ORCID

Tingting Chen  <https://orcid.org/0000-0001-6009-3534>

REFERENCES

- Aaker, J., Fournier, S., & Brasel, A. A. (2004). When good brands do bad. *Journal of Consumer Research*, 31(1), 1–16. <https://doi.org/10.1086/383419>
- Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research*, 34(3), 347–356. <https://doi.org/10.2307/3151897>
- Bajaj, A., & Bond, S. D. (2018). Beyond beauty: Design symmetry and brand personality. *Journal of Consumer Psychology*, 28(1), 77–98. <https://doi.org/10.1002/jcpy.1009>
- Bettels, J., & Wiedmann, K. P. (2019). Brand logo symmetry and product design: The spillover effects on consumer inferences. *Journal of*

- Business Research, 97, 1–9. <https://doi.org/10.1016/j.jbusres.2018.12.039>
- Beverland, M. B., & Farrelly, F. J. (2010). The quest for authenticity in consumption: Consumers' purposive choice of authentic cues to shape experienced outcomes. *Journal of Consumer Research*, 36(5), 838–856. <https://doi.org/10.1086/615047>
- Biliciler, G., Raghunathan, R., & Ward, A. F. (2022). Consumers as naive physicists: How visual entropy cues shift temporal focus and influence product evaluations. *Journal of Consumer Research*, 48(6), 1010–1031. <https://doi.org/10.1093/jcr/ucab042>
- Brasel, S. A., & Hagtvedt, H. (2016). Living brands: Consumer responses to animated brand logos. *Journal of the Academy of Marketing Science*, 44(5), 639–653. <https://doi.org/10.1007/s11747-015-0449-2>
- Champ, C., Vervaeke, T., Van Reckem, E., Geeraerts, W., Van der Veken, D., Ryckbosch, W., & Brengman, M. (2021). Assessing levels of traditionality and naturalness depicted on labels of fermented meat products in the retail: Exploring relations with price, quality and branding strategy. *Meat Science*, 181, 108607. <https://doi.org/10.1016/j.meatsci.2021.108607>
- Cian, L., Krishna, A., & Elder, R. S. (2014). This logo moves me: Dynamic imagery from static images. *Journal of Marketing Research*, 51(2), 184–197. <https://doi.org/10.1509/jmr.13.0023>
- Cinelli, M. D., & LeBoeuf, R. A. (2020). Keeping it real: How perceived brand authenticity affects product perceptions. *Journal of Consumer Psychology*, 30(1), 40–59. <https://doi.org/10.1002/jcop.1123>
- Fajardo, T. M., Zhang, J., & Tsiras, M. (2016). The contingent nature of the symbolic associations of visual design elements: The case of brand logo frames. *Journal of Consumer Research*, 43(4), 549–566. <https://doi.org/10.1093/jcr/ucw048>
- Gomez, P. (2015). How to make non-natural products appear more natural? Changes in process work better than changes in content. *Marketing Dynamics and Sustainability*, 12(1), 1630–1640. https://doi.org/10.1007/978-3-319-10912-1_204
- Grayson, K., & Martinec, R. (2004). Consumer perceptions of iconicity and indexicality and their influence on assessments of authentic market offerings. *Journal of Consumer Research*, 31(2), 296–312. <https://doi.org/10.1086/422109>
- Grewal, L., Hmurovic, J., Lambertson, C., & Rezek, R. W. (2019). The self-perception connection: Why consumers devalue unattractive produce. *Journal of Marketing*, 83(1), 89–107. <https://doi.org/10.1177/0022242918816319>
- Grohmann, B., Giese, J. L., & Parkman, I. D. (2013). Using type font characteristics to communicate brand personality of new brands. *Journal of Brand Management*, 20(5), 389–403. <https://doi.org/10.1057/bm.2012.23>
- Guèvremont, A., & Grohmann, B. (2016). The brand authenticity effect: Situational and individual-level moderators. *European Journal of Marketing*, 50(3), 602–620. <https://doi.org/10.1108/EJM-12-2014-0746>
- Hemmerling, S., Ascoli, D., & Spiller, A. (2016). Core organic taste: Preferences for naturalness-related sensory attributes of organic food among European consumers. *Journal of Food Products Marketing*, 22(7), 824–850. <https://doi.org/10.1080/10454446.2015.1121428>
- Henderson, P. W., & Cote, J. A. (1998). Guidelines for selecting or modifying logos. *Journal of Marketing*, 62(2), 14–30. <https://doi.org/10.2307/1252158>
- Henderson, P. W., Cote, J. A., Leong, S. M., & Schmitt, B. (2003). Building strong brands in Asia: Selecting the visual components of image to maximize brand strength. *International Journal of Research in Marketing*, 20(4), 297–313. <https://doi.org/10.1016/j.ijresmar.2003.03.001>
- Hynes, N. (2009). Colour and meaning in corporate logos: An empirical study. *Journal of Brand Management*, 16(8), 545–555. <https://doi.org/10.1057/bm.2008.5>
- Ji, R. (2010). *Material and technology of product modeling* (pp. 83–106). Beijing Jiaotong University Press.
- Jiang, Y., Gorn, G. J., Galli, M., & Chattopadhyay, A. (2016). Does your company have the right logo? How and why circular-and angular-logo shapes influence brand attribute judgments. *Journal of Consumer Research*, 42(5), 709–726. <https://doi.org/10.1093/jcr/ucv049>
- Kreuzbauer, R., & Keller, J. (2017). The authenticity of cultural products: A psychological perspective. *Current Directions in Psychological Science*, 26(5), 417–421. <https://doi.org/10.1177/0963721417702104>
- Krishna, A., Cian, L., & Aydinoglu, N. Z. (2017). Sensory aspects of package design. *Journal of Retailing*, 93(1), 43–54. <https://doi.org/10.1016/j.jretai.2016.12.002>
- Kum, D., Bergkvist, L., Lee, Y. H., & Leong, S. M. (2012). Brand personality inference: The moderating role of product meaning. *Journal of Marketing Management*, 28(11–12), 1291–1304. <https://doi.org/10.1080/0267257X.2011.645860>
- Luffarelli, J., Mukesh, M., & Mahmood, A. (2019). Let the logo do the talking: The influence of logo descriptiveness on brand equity. *Journal of Marketing Research*, 56(5), 862–878. <https://doi.org/10.1177/0022243719845000>
- Luffarelli, J., Stamatogiannakis, A., & Yang, H. (2019). The visual asymmetry effect: An interplay of logo design and brand personality on brand equity. *Journal of Marketing Research*, 56(1), 89–103. <https://doi.org/10.1177/0022243718820548>
- Lunardo, R., & Saintives, C. (2013). The effect of naturalness claims on perceptions of food product naturalness in the point of purchase. *Journal of Retailing and Consumer Services*, 20(6), 529–537. <https://doi.org/10.1016/j.jretconser.2013.05.006>
- Machado, J. C., Carvalho, L. V., Torres, A., & Costa, P. (2015). Brand logo design: Examining consumer response to naturalness. *Journal of Product and Brand Management*, 24, 78–87. <https://doi.org/10.1108/JPB-05-2014-0609>
- Machado, J. C., Fonseca, B., & Martins, C. (2021). Brand logo and brand gender: Examining the effects of natural logo designs and color on brand gender perceptions and affect. *Journal of Brand Management*, 28(2), 152–170. <https://doi.org/10.1057/s41262-020-00216-4>
- MacInnis, D. J., & Price, L. L. (1987). The role of imagery in information processing: Review and extensions. *Journal of Consumer Research*, 13(4), 473–491. <https://doi.org/10.1086/209082>
- Maehle, N., & Supphellen, M. (2011). In search of the sources of brand personality. *International Journal of Market Research*, 53(1), 95–114. <https://doi.org/10.2501/IJMR-53-1-095-114>
- Magnier, L., Schoormans, J., & Mugge, R. (2016). Judging a product by its cover: Packaging sustainability and perceptions of quality in food products. *Food Quality and Preference*, 53, 132–142. <https://doi.org/10.1016/j.foodqual.2016.06.006>
- Mahmood, A., Luffarelli, J., & Mukesh, M. (2019). What's in a logo? The impact of complex visual cues in equity crowdfunding. *Journal of Business Venturing*, 34(1), 41–62. <https://doi.org/10.1016/j.jbusvent.2018.09.006>
- Mandler, G. (1982). The structure of value: Accounting for taste, in affect and cognition. In M. S. Clark & S. T. Fiske (Eds.), *The seventeenth annual Carnegie symposium on cognition* (pp. 3–36). Erlbaum.
- Martindale, C., Moore, K., & Borkum, J. (1990). Aesthetic preference: Anomalous findings for berlyne's psychobiological theory. *American Journal of Psychology*, 103(1), 53–80. <https://doi.org/10.2307/1423259>
- Meyers-Levy, J., & Tybout, A. M. (1989). Schema congruity as a basis for product evaluation. *Journal of Consumer Research*, 16(1), 39–54. <https://doi.org/10.1086/209192>
- Morhart, F., Malär, L., Guèvremont, A., Girardin, F., & Grohmann, B. (2015). Brand authenticity: An integrative framework and measurement scale. *Journal of Consumer Psychology*, 25(2), 200–218. <https://doi.org/10.1016/j.jcps.2014.11.006>
- Newman, G. E. (2019). The psychology of authenticity. *Review of General Psychology*, 23(1), 8–18. <https://doi.org/10.1037/gpr0000158>

- Nguyen, B., Yu, X., Melewar, T. C., & Gupta, S. (2016). Critical brand innovation factors (CBIF): Understanding innovation and market performance in the Chinese high-tech service industry. *Journal of Business Research*, 69(7), 2471–2479. <https://doi.org/10.1016/j.jbusres.2016.02.016>
- Nunes, J. C., Ordanini, A., & Giambastiani, G. (2021). The concept of authenticity: What it means to consumers. *Journal of Marketing*, 85(4), 1–20. <https://doi.org/10.1177/0022242921997081>
- Orth, U. R., & Malkewitz, K. (2008). Holistic package design and consumer brand impressions. *Journal of Marketing*, 72(3), 64–81. <https://doi.org/10.1509/JMKG.72.3.064>
- Overvliet, K. E., & Soto-Faraco, S. (2011). I can't believe this isn't wood! An investigation in the perception of naturalness. *Acta Psychologica*, 136(1), 95–111. <https://doi.org/10.1016/j.actpsy.2010.10.007>
- Paulhus, D. L., & Lim, D. T. (1994). Arousal and evaluative extremity in social judgments: A dynamic complexity model. *European Journal of Social Psychology*, 24(1), 89–99. <https://doi.org/10.1002/ejsp.2420240107>
- Pittard, N., Ewing, M., & Jevons, C. (2007). Aesthetic theory and logo design: Examining consumer response to proportion across cultures. *International Marketing Review*, 24, 457–473. <https://doi.org/10.1108/02651330710761026>
- Pracejus, J. W., Olsen, G. D., & O'guinn, T. C. (2006). How nothing became something: White space, rhetoric, history, and meaning. *Journal of Consumer Research*, 33(1), 82–90. <https://doi.org/10.1086/504138>
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers*, 36(4), 717–731. <https://doi.org/10.3758/BF03206553>
- Rahinel, R., & Nelson, N. M. (2016). When brand logos describe the environment: Design instability and the utility of safety-oriented products. *Journal of Consumer Research*, 43(3), 478–496. <https://doi.org/10.1093/jcr/ucw039>
- Reber, R., & Unkelbach, C. (2010). The epistemic status of processing fluency as source for judgments of truth. *Review of Philosophy and Psychology*, 1(4), 563–581. <https://doi.org/10.1007/s13164-010-0039-7>
- Rozin, P., Spranca, M., Krieger, Z., Neuhäus, R., Surillo, D., Swerdlin, A., & Wood, K. (2004). Preference for natural: Instrumental and ideational/moral motivations, and the contrast between foods and medicines. *Appetite*, 43(2), 147–154. <https://doi.org/10.1016/j.appet.2004.03.005>
- Schmitt, B. (2012). The consumer psychology of brands. *Journal of Consumer Psychology*, 22(1), 7–17. <https://doi.org/10.1016/j.jcps.2011.09.005>
- Schwarz, N. (2004). Metacognitive experiences in consumer judgment and decision making. *Journal of Consumer Psychology*, 14(4), 332–348. https://doi.org/10.1207/s15327663jcp1404_2
- Scott, S. E., Rozin, P., & Small, D. A. (2020). Consumers prefer “natural” more for preventatives than for curatives. *Journal of Consumer Research*, 47(3), 454–471. <https://doi.org/10.1093/jcr/ucaa034>
- Sharma, N., & Varki, S. (2018). Active white space (AWS) in logo designs: Effects on logo evaluations and brand communication. *Journal of Advertising*, 47(3), 270–281. <https://doi.org/10.1080/00913367.2018.1463880>
- Siegrist, M., & Sütterlin, B. (2017). Importance of perceived naturalness for acceptance of food additives and cultured meat. *Appetite*, 113, 320–326. <https://doi.org/10.1016/j.appet.2017.03.019>
- Song, J., Xu, F., & Jiang, Y. (2022). The colorful company: Effects of brand logo colorfulness on consumer judgments. *Psychology and Marketing*, 39(8), 1610–1620. <https://doi.org/10.1002/mar.21674>
- Stanton, S. J., Townsend, J. D., & Kang, W. (2016). Aesthetic responses to prototypicality and uniqueness of product design. *Marketing Letters*, 27(2), 235–246. <https://doi.org/10.1007/s11002-015-9368-8>
- Sundar, A., & Noseworthy, T. J. (2014). Place the logo high or low? Using conceptual metaphors of power in packaging design. *Journal of Marketing*, 78(5), 138–151. <https://doi.org/10.1509/jm.13.0253>
- Torres, A., Machado, J. C., de Carvalho, L. V., van de Velden, M., & Costa, P. (2019). Same design, same response? Investigating natural designs in international logos. *Journal of Product and Brand Management*, 28(3), 317–329. <https://doi.org/10.1108/JPB-10-2017-1632>
- Valsesia, F., Nunes, J. C., & Ordanini, A. (2016). What wins awards is not always what I buy: How creative control affects authenticity and thus recognition (but not liking). *Journal of Consumer Research*, 42(6), 897–914. <https://doi.org/10.1093/jcr/ucv093>
- Van Grinsven, B., & Das, E. (2016). Logo design in marketing communications: Brand logo complexity moderates exposure effects on brand recognition and brand attitude. *Journal of Marketing Communications*, 22(3), 256–270. <https://doi.org/10.1080/13527266.2013.866593>
- Wei, H., Wang, T., Feng, W., & Ding, Q. (2018). The influence of positive and oblique character brand logo on consumer perception and attitude. *Management Review*, 30(2), 136–145. <https://doi.org/10.14120/j.cnki.cn11-5057/f.2018.02.013>
- Yoon, H. J. (2013). Understanding schema incongruity as a process in advertising: Review and future recommendations. *Journal of Marketing Communications*, 19(5), 360–376. <https://doi.org/10.1080/13527266.2012.671187>
- Zhang, J. (2007). Man-made products cannot completely replace natural products. *China Statistics*, 13(5), 52–54.
- Zhao, X., Lynch, J. G., Jr., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 197–206. <https://doi.org/10.1086/651257>

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Chen, T., Wu, Z., Hu, L., & Jia, Q. (2023). The visual naturalness effect: Impact of natural logos on brand personality perception. *International Journal of Consumer Studies*, 1–13. <https://doi.org/10.1111/ijcs.12912>

10. 《Economic Globalization and Corporate Accounting Risks: An Analysis of Enterprise Risk Management Based on Big Data》, Security and Communication Networks, SCI 收录, 2023.02

Hindawi
Security and Communication Networks
Volume 2022, Article ID 8673357, 11 pages
<https://doi.org/10.1155/2022/8673357>

WILEY |  Hindawi

Review Article

Economic Globalization and Corporate Accounting Risks: An Analysis of Enterprise Risk Management Based on Big Data

Yantai Zhang 

School of Economics and Trade, Henan Polytechnic Institute, Nanyang, Henan 473000, China

Correspondence should be addressed to Yantai Zhang; 1992003@hnpt.edu.cn

Received 8 June 2022; Revised 22 July 2022; Accepted 29 July 2022; Published 14 October 2022

Academic Editor: Zhiping Cai

Copyright © 2022 Yantai Zhang. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Economic globalization has become an unavoidable result of the rapid development of global economy. However, while economic globalization brings speed development and convenience to businesses, it also brings risks and challenges. With the advancement of network technology, Big Data has become increasingly intertwined with people's lives. Big Data is gradually being applied to the method of people's lives, in business, medical care, science and technology, production, and life. The production of Big Data for enterprises provides a large amount of data and information analysis library and for the management of enterprises provides a lot of convenience. Business management has also changed with the addition of big data. It is the top priority of enterprise development and survival to cope with the current economic and information globalization era which brings hidden dangers and risks. Based on the background of economic globalization and Big Data, this study analyzes the importance of enterprise risk management in the context of Big Data. This study mainly adopts the literature method and survey method to summarize what problems exist in enterprise risk management, highlights the causes of the problems in enterprise risk management, and gives corresponding solutions according to the existing problems. This paper aims at the study of enterprise risk management in the big environment, hoping to have certain suggestions and guidance for the relevant enterprises.

1. Introduction

As the term “economic globalization” suggests, the world's economies have started to interact and integrate, but this process is abstract and complex in nature. Economic globalization is a byproduct of the prompt productivity growth and is ultimately caused by it [1, 2]. As economic globalization continues to advance, a greater number of its byproducts are visible in our daily lives and increasingly permeate our production processes. Economic globalization has greatly facilitated people's lives, from importing and exporting national energy to the smallest necessities in supermarkets. However, there are also risks; for instance, due to economic globalization, developing countries may become richer while underdeveloped regions may become even poorer. The challenges and risks are growing daily. In short, the impact of economic globalization is huge; from economic to political and military, for the whole country, seizing the opportunity can be swift development, or the

opportunity will face the result of “superiority and elimination” over. Therefore, for better development, enterprises must seize the opportunity, meet the risks and challenges, find their own problems, and avoid problems [3].

Along with the development of network technology, Big Data is gradually applied to various fields of people's life because of its advantages of having a large amount of data storage and very fast processing speed. Enterprises started to incorporate Big Data into their own management model as a result of the emergence of the Big Data era. However, at the same time, as these hidden dangers emerged, the convenience of them also emerged. And ever more dishonest individuals started to take advantage of Big Data's vulnerability by using it and the network to steal the proprietary information of the company [4].

For the enterprise, along with the prompt development of the economy and the speedy depth of economic globalization, the relevant economic policies also follow the continuous adjustment and update; because of its greater

uncertainty, the risk of enterprise management is increasing day by day, so enterprises need to keep pace with the times, change the traditional thinking and management mode, and adapt to the requirements of the times; in order not to be innovative and reformed out, the only way to make the enterprise in a favorable position is to improve its own management system [5]. With the change of social environment, the generation and widespread use of Big Data, enterprises should adopt reasonable means and measures to use these convenient and scientific tools and then find useful resources from Big Data analysis to facilitate their own development and bring them profits while avoiding the related risk factors [6].

In conclusion, economic globalization and the gradual deepening and development of Big Data bring not only convenience and development but also risks and challenges to enterprises. In this situation, it is very necessary to study and explore the risk management models and methods of enterprises. The study of enterprise risk management based on Big Data provides a rational analysis and a reliable way for enterprises to enhance their own risk management capabilities, so it is of great research significance and practical importance [7].

2. Research Background

Many experts and scholars have discussed the main topics in this study, and the research in this area has produced a wealth of findings. In particular, the analysis of the general environment and the problems of enterprise risk management is particularly thorough. Experts and scholars have also expressed their own opinions regarding the improvement measures, based on the research of experts and scholars in this area [8].

In the analysis of the background of Big Data, the following views mainly exist. Along with the development of network technology, Big Data is gradually applied to various fields of people's production and life because of its advantages of having a large amount of data storage and extremely fast processing speed. Generally speaking, the arrival of Big Data Era has both advantages and disadvantages. The advantage is that Big Data technology provides a sharing platform for enterprise for information resources, reduces the expenditure of enterprise management informationization, greatly facilitates the management of enterprises, and makes the management faster. The disadvantage is that the security of management information system is not effectively guaranteed, and the existing data protection capability of enterprises cannot compete with hacking technology, and there is the risk of information leakage, etc. [9].

In this context of the problems of enterprise risk management, experts and scholars are of the opinion that, in the general environment, there is a greater difficulty in enterprise risk management, there are a large number of risks in business, financing, investment, information management, and enterprises in the context of Big Data, and there is no system and early warning measures in enterprise risk management, no correct understanding, and no attention to risk management; in addition to the lack of

corresponding, there is a lack of technical management personnel and the relevant technical personnel lack risk control awareness to prevent risks because they do not pay attention to the risk management of the enterprise and the drawbacks of Big Data, which seriously affect the risk management of the enterprise, etc.

Regarding the specific measures and methods to solve the problem, there are several views as follows: enterprises need to change their traditional concepts, build their own risk management system, train specialized technical personnel, and form their own risk management department to supervise and prevent, and enterprises must take tough measures to deal with the problem of data insecurity caused by Big Data, such as the core staff involved in the company's data information; the core staff involved in the company's data and information must sign a confidentiality agreement to strictly prevent employees from leaking information, strengthen their own information management system enterprises should learn from advanced management experience, improve the enterprise's management system, adopt an appropriate management model, and find out the system's shortcomings and risk events in order to ensure that the security of the data must be ensured properly [10].

To summarize, experts' research on enterprise risk management based on Big Data has been very thorough and has yielded rich research results, but it is clear that these studies still have a single research method and no reliable data to support the theoretical point of view and only rely on literature research, which is not combined with the practical, and the analysis is not thorough.

3. Materials and Methods

3.1. Main Structure of the Study. Firstly, this study analyzes the whole existing environment and background in detail and explains the necessity of researching the topic of enterprise risk management based on Big Data, then immediately summarizes the main results and contents of previous scholars and experts' research on enterprise risk management in the context of the big time, and finally combines its own understanding and research investigation to summarize the main problems of enterprise risk management and, at the same time, summarizes these. The study concludes with the following five sections. This study is written in five main sections [11].

Section 1 mainly analyzes the importance of enterprise risk management research in the context of quick economic development and extensive application of Big Data, which is particularly important and occupies an important position in the survival and development of enterprises [12].

In Section 2, because there are a surging number of domestic studies on risk management based on Big Data, many experts and scholars have different focuses to analyze and talk about this viewpoint, and all of them have different research results that are worthy of deeper investigation. Therefore, this section mainly elaborates and summarizes the unified expert scholars' discussion

编 号：20230683

中国科学院成都科技查新咨询中心

检 索 报 告 书

项目名称： 论文收录和刊物的分区及影响因子情况
委 托 者： 河南工业职业技术学院 张延泰
检索单位： 中国科学院成都科技查新咨询中心
委托日期： 2023 年 02 月 10 日
完成日期： 2023 年 02 月 10 日

第 1 页

一、项目要点

应河南工业职业技术学院张延泰的委托,检索其提交的1篇论文的收录和刊物的分区及影响因子情况。

二、检索情况

1. 论文收录

检索系统: Science Citation Index Expanded (SCI-E)
检索年限: ——
检索策略: 标题=Economic Globalization and Corporate Accounting Risks: An Analysis of Enterprise Risk Management Based on Big Data

2. 影响因子

检索系统: Journal Citation Reports (JCR)
检索年限: 2021
检索策略: Type search term=SECURITY AND COMMUNICATION NETWORKS

3. 分区

检索系统: 中国科学院文献情报中心期刊分区表升级版
检索年限: 2022
检索策略: Type search term=SECURITY AND COMMUNICATION NETWORKS

三、检索结果

(一) 经检索《科学引文索引》数据库 (Science Citation Index Expanded (SCI-E)), 提交的1篇论文被 SCI-E 数据库收录, 记录见附件1。

(二) 经检索《Journal Citation Reports》和《中国科学院文献情报中心期刊分区表升级版》数据库, 刊物的影响因子及分区情况见附件1。

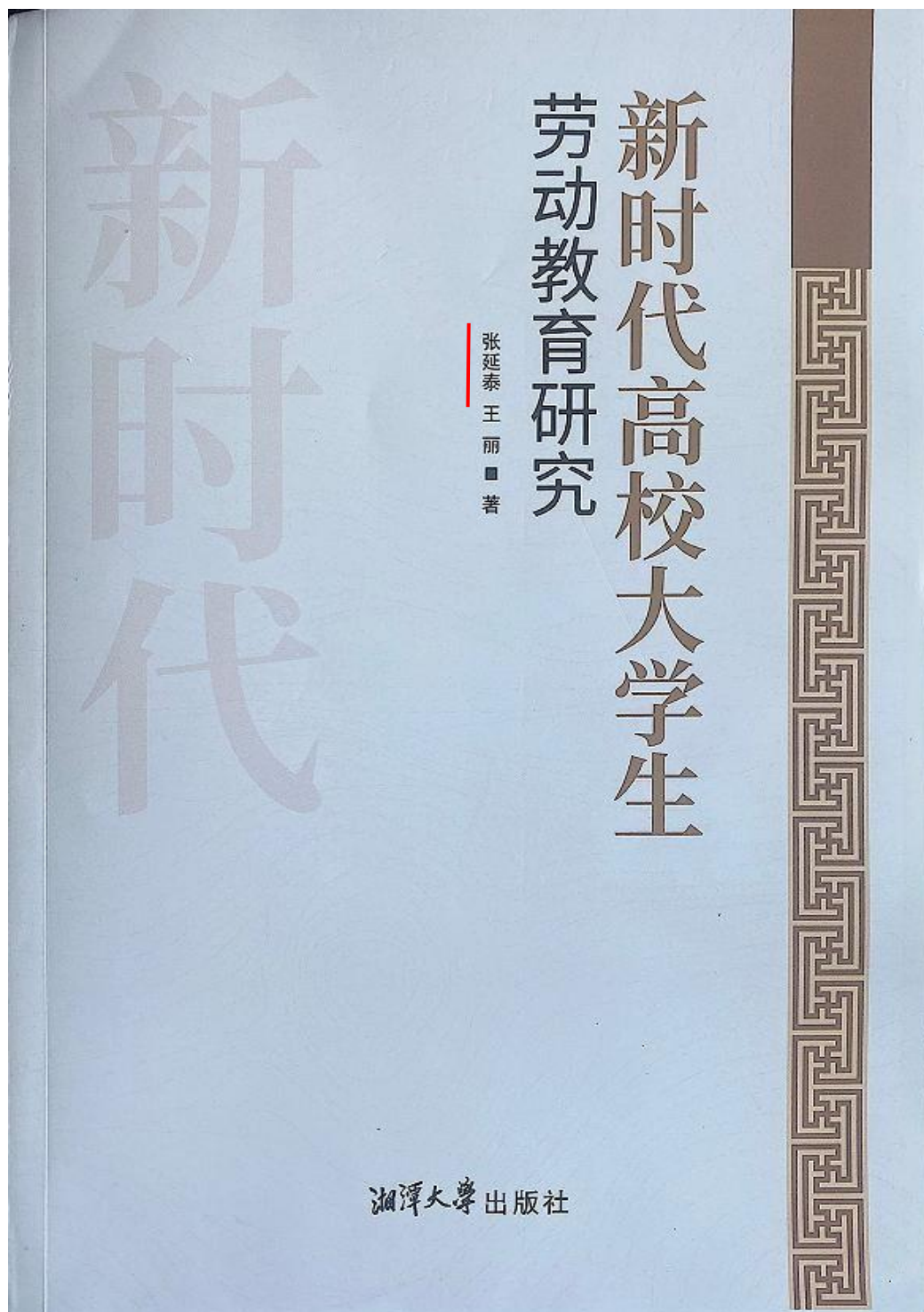
检索人: 任波

检索单位: 中国科学院成都科技查新
咨询中心 (盖章)

检索时间: 2023年02月10日

二、论著

1. 《新时代高校大学生劳动教育研究》，湘潭大学出版社，2023. 07



版权所有 侵权必究

图书在版编目(CIP)数据

新时代高校大学生劳动教育研究/张延泰,王丽著
—湘潭:湘潭大学出版社,2023.5
ISBN 978-7-5687-1133-3

I. ①新… II. ①张…②王… III. ①大学生—劳动
教育—研究 IV. ①G40-015

中国国家版本馆 CIP 数据核字(2023)第 097100 号

新时代高校大学生劳动教育研究

XINSHIDAI GAOXIAO DAXUESHENG LAODONG JIAOYU YANJIU

张延泰 王 丽 著

责任编辑:丁立松

封面设计:李欣平

出版发行:湘潭大学出版社

社 址:湖南省湘潭大学工程训练大楼

电 话:0731-58298960 0731-58298966(传真)

邮 编:411105

网 址:<http://press.xtu.edu.cn/>

印 刷:长沙欣发印务有限公司

经 销:新华书店

开 本:787 mm×1092 mm 1/16

印 张:15

字 数:313 千字

版 次:2023 年 7 月第 1 版

印 次:2023 年 7 月第 1 次印刷

书 号:ISBN 978-7-5687-0940-8

定 价:48.00 元

前 言

教育与生产劳动相结合是我们历来坚持的教育方针。2018年9月10日,习近平总书记在全国教育大会上要求把劳动教育纳入培养社会主义建设者和接班人的总体要求之中,明确提出要构建德智体美劳全面培养的教育体系。2020年3月,中共中央、国务院发布《关于全面加强新时代大中小学劳动教育的意见》,对新时代劳动教育做了顶层设计和全面部署,意义重大,影响深远。教育的本质在于育人。立德树人是高校的根本任务,“如何育人”和“育什么样的人以及为谁育人”始终是其两个重要方面。如果说前者强调的是手段的话,那么后者就决定了教育的价值属性和目的所在。我国是中国共产党领导的社会主义国家,这就决定了高校必须把劳动教育纳入新时代高校育人体系,构建具有中国特色的劳动教育体系,实现全员全方位全过程的劳动育人,这是教育工作的根本任务,也是教育现代化的方向目标。本书以马克思主义立场、观点和方法为指导,分析了当前高校劳动教育存在的问题及其原因,从劳动教育课程体系设置、载体拓展、方法创新、体制机制完善、实践教学等方面探讨了新时代高校劳动教育的实施路径,初步构建了一个研究高校劳动教育的全新理论框架。

人的全面发展是一切教育活动的主旨,劳动是实现人的全面发展的必由之路。劳动教育是高校深化教育改革、落实素质教育一个重要的切入点,高校开展劳动教育意义重大。准确把握劳动教育的内涵和本质,把握时代的发展规律,把劳动教育融入高校教育教学全过程、全方位、各环节,有助于促进高校育人理论和实践的进一步发展和完善,有助于提升高校学生的劳动素养,从而真正实现人的全面发展。深入探讨高校劳动教育的课程建设、体系构建与创新发展,可以促进对高校劳动教育工作的正确方向及创新路径的准确把握,对高校劳动教育工作有深远的意义。

本书以教育与高校教育管理为切入点,先对高校劳动教育的发展、组织、课程、体系等方面做了全面的介绍,接着深入探讨高校劳动教育的实效性以及多维度创新实践路径,达到理论与实践相结合,有助于读者对高校劳动教育有全面的认识。

由于时间仓促,书中所涉及的内容难免有疏漏之处,希望各位读者多提宝贵意见,以便著者进一步修改,使之更加完善。

目 录

第一章 教育及其发展规律	1
第一节 教育与社会及人的发展	1
第二节 教育的本质及其基本规律	46
第二章 新时代高校劳动教育的新内涵与新定位	70
第一节 劳动教育的内涵	70
第二节 新时代高校劳动教育的新内涵	74
第三节 新时代高校劳动教育的新定位	81
第三章 加强新时代高校劳动教育的时代价值与实践要求	88
第一节 加强新时代高校劳动教育的时代价值	88
第二节 加强新时代高校劳动教育的实践要求	98
第四章 新时代高校劳动教育的经验借鉴及现状分析	110
第一节 新时代高校劳动教育经验借鉴	110
第二节 新时代高校劳动教育现状分析	116
第三节 新时代高校劳动教育问题的原因分析	119
第五章 新时代高校劳动教育组织与课程建设	123
第一节 高校劳动教育组织机构及其职责	123
第二节 高校劳动教育的理论与实践课程	128
第三节 高校劳动教育的课程建设	132

2. 《品牌标识设计与品牌个性匹配对品牌资产的影响》，武汉大学出版社，2024. 04



河南省自然科学基金项目“地域资源禀赋下的黄河流域传统村落人居环境活化机理与调控路径研究(242300420597)”；河南省软科学研究计划项目“双碳目标下绿色金融助力河南省生态产品价值实现机制与路径研究”(232400412050)；河南省教育科学规划重点项目“职业教育服务河南省技能型社会建设的功能定位与实现路径研究”(2023JKZD41)。

品牌标识设计与 品牌个性匹配 对品牌资产的影响

陈婷婷 著



WUHAN UNIVERSITY PRESS
武汉大学出版社

图书在版编目(CIP)数据

品牌标识设计与品牌个性匹配对品牌资产的影响/陈婷婷著.—武汉:武汉大学出版社,2024.4

ISBN 978-7-307-23929-6

I.品… II.陈… III. 商标设计—影响—品牌—资产价值—研究
IV.F273.2

中国国家版本馆 CIP 数据核字(2023)第 153525 号

责任编辑:陈 红 责任校对:汪欣怡 版式设计:马 佳

出版发行:武汉大学出版社 (430072 武昌 珞珈山)

(电子邮箱:cbs22@whu.edu.cn 网址:www.wdp.com.cn)

印刷:武汉中远印务有限公司

开本:720×1000 1/16 印张:11 字数:178 千字 插页:1

版次:2024 年 4 月第 1 版 2024 年 4 月第 1 次印刷

ISBN 978-7-307-23929-6 定价:58.00 元

版权所有,不得翻印;凡购买我社的图书,如有质量问题,请与当地图书销售部门联系调换。

品牌标识设计与品牌个性匹配对 品牌资产的影响

陈婷婷 著

武汉大学出版社

前言

品牌标识与品牌个性是两个关联度很大的变量，一方面，品牌标识作为品牌的官方视觉表达，为消费者识别和解读品牌个性提供了十分关键的视觉线索；另一方面，当品牌个性与所选取的品牌标识的设计特征相匹配时，可以带来更积极的消费者反应。品牌个性的表达可以借助不同类型的视觉呈现方式来得以体现，如高层次的呈现方式（精心性与和谐性）和低层次的呈现方式（自然性）。以往学者大多聚焦于探讨品牌标识高层次视觉呈现方式的不同维度对消费者信息处理方式和品牌个性感知的影响，如动态性、复杂性、对称性及稳定性等，为企业如何选择和设计品牌标识提供了重要的理论参考。作为一种低层次的视觉呈现方式，自然性反映了品牌标识对客观自然物象原形的描绘程度。在品牌管理实践中，无论是高自然性的品牌标识还是低自然性的品牌标识都被许多公司采用，但是，品牌管理者通常并不清楚如何在这两种品牌标识之间进行正确的选择，一旦采用了与自身品牌个性不匹配的品牌标识，反而会产生极其负面的消费者反应。理论上讲，对于品牌应该如何选择适当自然性水平（低自然性 vs. 高自然性）的品牌标识，以往学者也并没有给出清晰和明确的答案。

为此，本书以品牌标识视觉呈现的自然性作为切入点，基于视觉意象理论、图式理论以及感知一致性理论，开展了两个正式研究尝试探讨品牌标识自然性对品牌刺激个性感知及品牌资产的影响。其中，研究一实施了 5 个实验来探讨品牌标识自然性对品牌刺激个性感知的影响，以及品牌标识创造性感知在这一影响过程中的中介作用和产品类型（自然成分产品 vs. 人造成分产品）在这一影响过程中的调节作用。研究二首先通过 2 个情景实验来论证品牌标识自然性与品牌刺激个性特征的匹配对品牌评价（基于消费者要素的品牌资产）的积极影响，以及

品牌标识与品牌感知一致性在这一影响过程中的中介作用；然后进一步参考真实的市场财务数据来检验品牌标识自然性与品牌刺激个性的匹配对品牌市场财务表现（基于财务要素的品牌资产）的积极影响以及消费者对品牌的积极评价（基于消费者要素的品牌资产）在这一影响过程中的中介作用。

总的来说，本书两个研究的结果表明：（1）相对于高自然性的品牌标识，低自然性的品牌标识创造性更强，对品牌刺激个性感知的影响也更积极；（2）产品类型会调节品牌标识自然性对品牌刺激个性感知的影响，具体来说，相对于自然成分产品，人造成分产品与低自然性的品牌标识匹配时对品牌刺激个性感知的影响更积极；（3）相对于高自然性的品牌标识，低自然性的品牌标识与刺激个性定位的品牌感知一致性更高，对刺激个性定位品牌的评价（基于消费者要素的品牌资产）能够产生更积极的影响，进而对品牌的财务估值（基于财务要素的品牌资产）产生更积极的影响。

本书共包括六章：第一章为绪论部分，主要介绍本书的研究背景、研究问题、研究意义、研究内容及方法；第二章为文献回顾部分，主要介绍品牌标识、视觉自然性、品牌个性及品牌资产的相关文献研究情况，并在此基础上明确本书的研究问题；第三章为相关理论基础部分，主要是对视觉意象理论、图式理论以及感知一致性理论进行系统的梳理；第四章为研究一，主要是在文献综述和理论梳理的基础上，为了清晰地解答不同自然性水平的品牌标识对品牌刺激个性特征解读有何差异化影响，并详细地探究了其背后的逻辑即中介机制和可能的边界条件；第五章为研究二，主要在研究一的基础上进一步论证品牌标识自然性与品牌刺激个性的匹配对两种不同评估方式下的品牌资产的影响；第六章为总体结论部分，主要是在实证研究结果分析的基础上，对本书的研究结论进行汇总，进而阐明本书的理论贡献和营销启示，并指出本书的研究局限和可能的未来研究方向。各章的具体内容简要如下：

第一章是绪论，主要阐明了本书的研究背景、研究问题和研究意义。消费者通常会借助品牌标识的视觉信息来推断其所属品牌的个性特征，理论上，以往学者们对品牌标识的研究更多地聚焦于品牌标识的高层次视觉呈现方式（精心性与和谐性）对消费者感知和态度的影响，而忽视了自然性这种低层次的视觉呈现方式对消费者认知和行为反应的影响。营销实践中，无论是高自然性的品牌标识还

是低自然性的品牌标识都被许多品牌采用，但是品牌管理者通常并不清楚如何在这两种品牌标识之间进行正确的选择。基于此，本书认为我们急需明确品牌应该如何依据个性特征来选择合适自然性水平（低自然性 vs. 高自然性）的品牌标识。

第二章是文献综述，主要对品牌标识、视觉自然性、品牌个性以及品牌资产相关构念的研究进行了系统的梳理和客观的评述。首先，尽管学者们从很多视角探讨了品牌标识对消费者认知和行为反应的影响，但是有关品牌标识在消费者行为领域的研究主要表现出“注重高层次视觉呈现方式（精心性与和谐性）的影响 vs. 忽视低层次视觉呈现方式（自然性）的影响”这一特点。然后，本书通过对视觉自然性相关文献的系统梳理，发现现有文献更多地重视高自然性品牌标识的审美优势，而忽视不同自然性水平的品牌标识对消费者感知和态度影响解释机制的差异性。接着，本书介绍了品牌个性的历史研究脉络和相关研究视角，发现品牌个性的相关研究大多聚焦于消费者与品牌的一致性而忽视消费者心理意象的作用。最后，本书根据研究需要对品牌资产的内涵、维度以及前置因素进行了系统的梳理，发现这些研究大多重视品牌标识设计和品牌个性对品牌资产影响的独立效应，忽视二者对品牌资产的交互作用以及不同评估方式品牌资产之间的内在联系。

第三章是相关理论基础，通过上一章的文献回顾和评述，明确了本书的主要研究问题，即品牌标识自然性对品牌个性感知有何差异化影响以及品牌标识自然性与品牌个性的匹配对品牌资产有何影响。为了清楚地解答这些问题，我们寻找了一些相关理论来做铺垫。具体来说，这一部分对视觉意象理论、图式理论以及感知一致性理论进行了系统的梳理，并对这几个理论在消费者行为领域的研究进行了整理和分析，为本书的研究提供了扎实的理论基础。

第四章是研究一，在文献综述和相关理论梳理的基础上，提出本书的研究假设，期望（1）相对于高自然性的品牌标识，低自然性的品牌标识对品牌刺激个性感知的影响更积极；（2）品牌标识的创造性感知在这一影响过程中发挥中介作用；（3）产品类型（自然成分产品 vs. 人造成分产品）会调节品牌标识自然性对品牌刺激个性感知的影响。然后，研究一通过情景实验方法来充分论证和检验品牌标识自然性对品牌刺激个性感知影响的主效应（研究 1a）、中介效应（研究

1b) 和调节效应 (研究 1c)。

第五章是研究二，在研究一的基础上探讨品牌标识自然性与品牌刺激个性特征的匹配对品牌资产的溢出效应。其中，研究 2a 重点检验了品牌标识自然性与品牌刺激个性的匹配对品牌评价（基于消费者要素的品牌资产）的影响以及品牌标识与品牌感知一致性在这一影响过程中的中介作用；研究 2b 通过分析真实的市场财务数据来进一步论证了品牌标识自然性与品牌刺激个性的匹配对品牌财务估值（基于财务要素的品牌资产）的影响。

第六章是总体结论，主要对本书总体研究的结论进行了整理，并讨论了本书的理论贡献和营销启示，最后指出了本书研究的局限性和可能的未来研究方向。目前，有关品牌标识视觉低自然性效应的相关理论研究相对较少，如何选择适当自然性水平（低自然性 vs. 高自然性）的品牌标识仍然缺乏充分的理论指导，未来学者们可以从其他视角来深入拓展本书的研究，以期为品牌管理实践提供更系统和完善的理论参考。

目 录

1 绪论	1
1.1 问题提出和研究意义	1
1.2 研究思路、框架和方法	8
2 文献综述	15
2.1 品牌标识相关文献综述	15
2.2 视觉自然性相关文献综述	25
2.3 品牌个性相关文献综述	28
2.4 品牌资产相关文献综述	40
3 相关理论基础	48
3.1 视觉意象理论	48
3.2 图式理论	52
3.3 感知一致性理论	55
4 研究一：品牌标识自然性对品牌个性感知的影响	58
4.1 研究目的	58
4.2 理论推演和假设提出	58
4.3 研究方法与结果分析	62
5 研究二：品牌标识自然性与品牌刺激个性的匹配对品牌资产的影响	92
5.1 研究目的	92

5.2 理论推演和假设提出	93
5.3 研究方法 with 结果分析	96
6 总体结论	111
6.1 研究总结	111
6.2 理论贡献和营销启示	114
6.3 研究局限和未来研究方向	118
参考文献	121
附录	151