Full Length Article Open Access

Role of Strategic Human Resource Management Practices in Managing Dairy Farms of Australia

Aman Ullah[1], Saqib Rehman[2], Nadia Noor[3], Nabeela Arshad[4]

[1]Department of Management and Marketing, University of Melbourne, Melbourne, Australia
[2,3,4]Department of Management Sciences, Lahore College for Women University, Lahore, Pakistan

ABSTRACT

Purpose- Australian dairy farming's global presence is significant, yet scholarly attention to its broader market impact is lacking. This study addresses this gap by investigating how HR practices in Australian dairy farms affect employee turnover and absenteeism.

Design/methodology/approach- The study utilized the AML (Action Mailing List) survey with 6780 Australian dairy farmers, randomly selecting 1549 for participation. 956 dairy farms received the survey pack, resulting in 362 responses. Data analysis employed listwise deletion, filtering 205 responses. Participants volunteered, assured of response confidentiality.

Findings-The regression findings reveal that targeted HRM practices lower turnover and absenteeism, yet certain practices, like annual reviews and career opportunities, are linked to higher turnover. Additionally, informal HRM practices like annual reviews and informal communication contribute to increased absenteeism. Integrated HRM practices aligned with business strategies, such as product quality and people management, predict lower turnover and absenteeism in the dairy industry.

Research limitations/implications-The study solely gathered data from managers. Future research should explore employee responses to HRM practices. A comparison of employee and owner-manager perspectives could yield valuable insights for dairy practitioners and policymakers aiming to enhance farming work practices.

Originality/value-Empirical research on HRM practices and performance in agriculture, particularly in sectors like dairy farming, is scarce. The authors address this gap by exploring the theoretical foundation of the HRM-performance connection within the dairy industry, offering insights for sustainable development.

Keywords: Strategic HRM, Dairy Farms, Absenteeism, Turnover

1. INTRODUCTION

The influential impact of Human Resource Management (HRM) practices on HRM

Address of Correspondence
Saqib Rehman
Saqib.rehman@lcwu.edu.pk

Article info
Received February 23, 2023
Accepted June 28, 2023
Published June 30, 2023

outcomes and the performance of organization have been extensively discussed in earlier studies (Wang et al., 2022; Chowhan, 2016; Della Torre, 2019; Paul & Anantharaman, 2003). The currently available literature mostly covers the problems of the industrial sector and hard to find the studies catered the dairy farming. Most authors have investigated the concept of HRM practices in non-agricultural settings. Although, the significance of HRM practices and their impact on organizational performance is widely accepted in the context of SMBs (Small and Medium-sized Businesses). (Davies & Crane, 2010; Jashari & Kutllovci, 2020; Mathieu, Fabi, Lacoursière, & Raymond, 2016; Podgorodnichenko, Edgar, & McAndrew, 2020). However, the availability of empirical research conducted in the context of HRM practices and performance relationships in small businesses that function in agriculture and its sub-sectors, such as dairy farms, is limited.

In the agricultural context, few studies have been conducted on small firms that put their focus on individual HRM practices and mostly worked for employee retention. (R Nettle, 2012; Thilmany, 2001), compensation (Billikopf, 1996; Hagevoort, Douphrate, & Reynolds, 2013; Howard, McEwan, Brinkman, & Christensen, 1991), leadership (Miller & Auestad, 2013; Ulvenblad & Cederholm Björklund, 2018), and recruitment and selection (Shen & Edwards, 2004; Slavić, Bjekić, & Berber, 2017). The study given by Stup et al. (2006) and Moore et al., (2020) analysed the relationship between the performance of dairy farms and a set of selected HRM practices. Stup et al. (2006), worked for 80 dairy farms that were located in Pennsylvania. The findings inferred that firms could achieve better performance and may attain competitive advantages by following the HR practices. These practices include continuous training and standard operating procedures for feeding, and the performance was termed ‘better’ in terms of returns on equity and somatic cell count.

The research done by Hyde et al. (2011, 2008) and Stup et al. (2006) followed data-driven models instead of theory-based assumptions. The information extracted by these studies did not extend the literature related to HRM practices, especially for dairy farming in the context of Australia. Few studies about the Australian dairy farming are available that gave evidence for the development of a collaborative employees’

relationships and their retention rate (R Nettle, 2012; Ruth Nettle, Paine, & Petheram, 2006; Santhanam-Martin, Bridge, & Stevens, 2019) (R Nettle, Crawford, & Brightling, 2018) themes. Particularly, Australian dairy farming has made a larger spread and holding an extensive network over the world but the description about this broader market is almost neglected by the academicians and researchers, therefore, it is hard to find the study that caters HR practices upon HR outcomes related to the outgains of dairy farming. Considering this loophole, the current study aims to determine an influential impact of HR practices on HR outcomes i.e., employees' absenteeism and employees' turnover.

Mugera and Bitsch (2005) opined that, without understanding the significance of HRM practices and their influence on HRM outcomes, a potential risk of overlooking factors exists, which might have contributed to better management techniques as well as employee retention in dairy farming. This scenario also questions the strategic value contribution of HRM towards high-performing workplaces or farms, which remains a key challenge to be addressed in the domain of strategic HRM (Ulrich, 2011) and Australia's 'People in Dairy Program' (The People in Dairy Program, 2012). There is no clear information available about the unique set of HRM practices developed by farm owners or their managers to boost their business outputs i.e., profitability, growth, and survival. (Ogawa et al., 2023; Beecher et al., 2023), Further measures like cost reduction, technology innovation, and product quality can also be taken to achieve higher standards of HR outcomes. There is a significant research gap regarding the adoption of a set of HRM practices at the farm level and their influence on HRM outcomes, such as employee turnover and absenteeism. The current study intends to fill this research gap.

The objective of this study is to likely contribute to HRM research in the context of dairy farming by considering the dairy industry context and the potential managerial implications for developing a sustainable dairy industry. To achieve the research objectives, the author(s) provided details about the theoretical underpinning of the HRM-performance link in the context of a specific industry. To achieve the research objective, a study has formulated two research questions; RQ1: What is the impact of HRM practices on employee turnover? RQ2: What is the impact of HRM practices on

employee absenteeism? The stated research questions allow the researcher to achieve its pre-defined objectives and direct the research to find the solution to its problem.

The rest of this manuscript is organized as follows. Section 2 reviewed the current literature and stated hypotheses. Section 3 describes the methodology and explains their measures. Next, the section 4 reported the results and interpret their findings. The section 5 made a discussion about the study. Section 6 highlights a few limitations and provides the practicality. Lastly, section 7 concludes the study.

2. LITERATURE REVIEW

The current study has taken theoretical support from Resource Based Theory which was initially given by Mugera and Bitsch (2005). In 2012, Mugera made an extension of this theory and stated that a firm can achieve a sustainable competitive advantage by adopting HR practices through an appropriate utilization of unique, valuable, and invertible resources. Thereby, the current contextual study at Australian dairy farming has underpinned the Resource Based Theory.

Further, Mugera (2012) described that motivated employees can participate in value addition, either by mitigating the costs incurred in operations or by increasing revenue. The latter can be achieved using different methods, such as better calving rates, early heat detection, maintenance of low somatic cell counts, successful artificial insemination, and low calf mortality rates. Dairy farmers who excel in their performance should be encouraged through incentives and benefits as part of employee motivation and retention programs (Huselid, 1995). Further, industry-specific training programs must be conducted for both new and existing employees to make an individual a skilled employee. Employees, who are considered to be competent enough, can add further value to the dairy farm and improve the business performance (Moore, Durst, Ritter, Nobrega, & Barkema, 2020). Therefore, it is crucial to retain competent employees by strategizing best HRM practices (Rehman et al., 2022).

2.1. Relationship of HRM Practices with Employee Turnover and Absenteeism

According to Mugera and Bitsch (2005), studies focusing on HRM practices and human resources in dairy farming are less in number. It remains a challenging process for

dairy farms to recruit employees who possess the appropriate skills and knowledge of dairy husbandry. Skilled employees with expertise in dairy farming were rare. Nettle (Nettle.R, Semmelroth, Ford, Zheng, & Ullah, 2011) mentioned that dairy farms should develop and incorporate better retention strategies such as good communication channels, flexible work nature, work-life balance, job security, high compensation, and good interpersonal relationships. High levels of job satisfaction among employees, low voluntary turnover, and increased farm performance are some of the outcomes observed when a set of HRM practices such as recruitment, development, and incorporation of retention strategies are integrated and applied together rather than as a single entity. Mugera and Bitsch (2005) further argued that when HRM practices are clubbed together, they exert a strategic influence that, in turn, controls voluntary turnover. Dairy farms may attain a sustainable competitive advantage when long-term business strategies are applied at the HR department and execute their entire functions like employee training and development, appropriate recruitment and selection, and attractive salary packages.

According to earlier studies (Guthrie et al., 2009; Huselid, 1995; Harney & Alkhalaf, 2020) 'employee turnover' was determined based on the percentage of employees who resigned their jobs in the past 12 months against the total number of individuals employed during the same period. On the contemporary side, employee absenteeism, one of the other measures, is generally determined as the total number of days during which the employee is absent from work in the past 12 months against the total number of working days during the same period (Guthrie et al. 2009; Harney & Alkhalaf, 2020). Previous studies have analyzed the impact of HRM practices in different subsectors of agriculture, such as horticulture (Bitsch & Harsh, 2004), dairy farming (Bitsch, Kassa, Harsh, & Mugera, 2006), and pork production (Bitsch & Olynk, 2008), in addition to RBT implementation in HRM dairy farming. Bitsch et al. (2006) developed an HRM framework for dairy farms, which is one of the most significant contributions ever made. Although this framework was developed based on qualitative analysis, Bitsch et al. (2006) indicated that if HRM practices are not sufficiently incorporated in an organization, then it results in unexpected intermediate outcomes at both the individual and farm levels. When HRM systems remain underdeveloped on farms, they affect

performance outcomes in terms of low productivity, heavy operational costs, high employee turnover, and non-achievement of farm goals (Bitsch et al., 2006). Therefore, this framework, proposed by Bitsch et al. (2006), can be tested in a wide range of populations, and the current research is intended to do so. A set of HRM practices is used in combination to achieve a sustainable competitive advantage. This phenomenon can be understood through the creation of rare and valuable human resources on a farm, which are unique and cannot be substituted. This 'bundled' approach gains attention since it is possible to observe the interaction among different set of HRM practices within this HRM system and also one can identify the factors that contribute the most, towards firm performance.

This scenario is hypothesized as follows:

H1: *Bundling HRM practices lower employee turnover.*

H1a: *Training process at dairy farms lowers employee turnover.*

H1b: *An induction training program at dairy farms lowers employee turnover.*

H1c: *Annual performance review at dairy farms lowers employee turnover.*

H1d: *Informal communication at dairy farms lowers employee turnover.*

H1e: *Career opportunities at dairy farms lower employee turnover.*

H1f: *Risk management of OH&S at dairy farms lowers employee turnover.*

H1g: *Monitoring of OH&S at dairy farms lowers employee turnover.*

H1h: *Job-related records at dairy farms lower employee turnover.*

H1i: *Standard operating procedures at dairy farms lower employee turnover.*

H2: *Bundling HRM practices lower employee absenteeism.*

H2a: *Training process at dairy farms lowers employee absenteeism.*

H2b: *An induction training program at dairy farms lowers employee absenteeism.*

H2c: *Annual performance review at dairy farms lowers employee absenteeism.*

H2d: *Informal communication at dairy farms lowers employee absenteeism.*

H2e: *Career opportunities at dairy farms lower employee absenteeism.*

H2f: *Risk management of OH&S at dairy farms lowers employee absenteeism.*

H2g: *Monitoring of OH&S at dairy farms lowers employee absenteeism.*

H2h: *Job-related records at dairy farms lower employee absenteeism.*

H2i: *Standard operating procedures at dairy farms lower employee absenteeism.*

2.2. Role of Contextual Factors

Paauwe and Boselie (2003) state that there is a lack of strategic focus in RBT to fulfill the needs of a vibrant organizational environment. A few other authors have also mentioned that RBT ignores the significant nature of contextual factors (Boxall 1996; Priem and Butler 2001) and the role played by institutional settings in creating an impact on the HRM decisions of the firm (Oliver 1997). According to the researchers (Paauwe and Boselie (2003) and Farndale and Paauwe (2007), institutional factors impact organizational HRM systems through three mechanisms. First, the coercive mechanism is composed of regulatory processes that involve labor legislation, trade unions, and government institutions. This impacts HRM practices and uses different degrees of enforcement (Paauwe and Boselie, 2003). The institutional factors related to the current research indeed determine HRM practices in dairy farming. Second, mimetic mechanisms involve imitation of competitors' HRM practices due to uncertain circumstances, management fads, or trends (Paauwe and Boselie, 2003). As far as relevancy to the current research work is concerned, Australian dairy farms could have already incorporated efficient recruitment channels such as flexible working hours, on-farm benefits, performance-based compensation, and standard operating procedures since these practices were already followed by their competitors in other regional industries and in other contexts too (Hyde et al., 2008; Bitsch et al., 2006; Marchand et al., 2008). Normative mechanisms are the third group, which discusses the influence of professional networks, professional bodies, and job experience in adopting HRM practices (Paauwe and Boselie, 2003; Farndale and Paauwe, 2007). Relevant to the current research study, Australian dairy farmers recently adopted HRM practices developed and advised by "The People in Dairy (TPiD)" program, a professional organization that guides farms in the context of people-related issues (TPiD, 2012). Since these institutional mechanisms have enough potential to create an impact on HRM practices in dairy farming, the institutional theory is also underpinned in the current research work for the consideration of

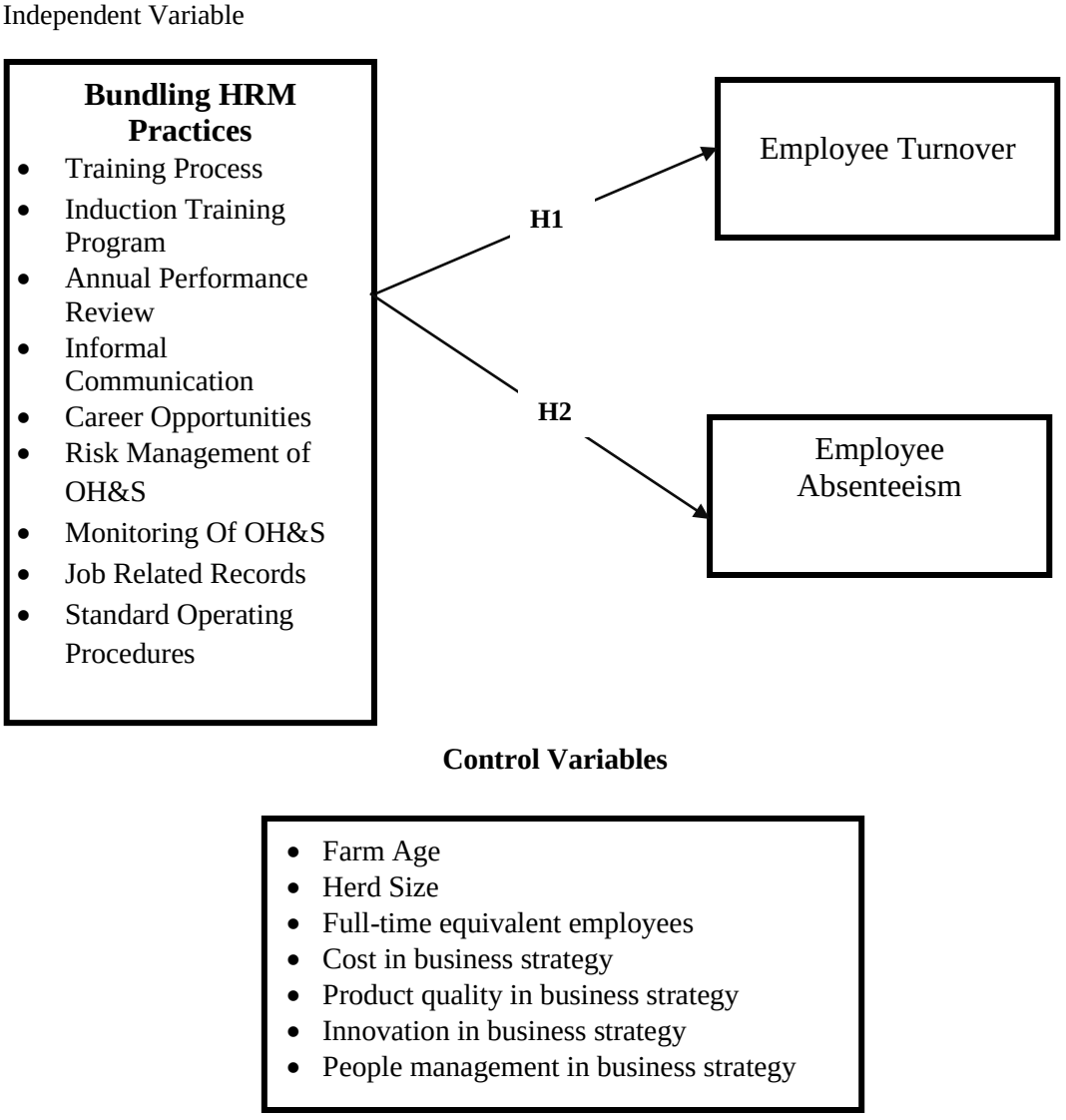
contextual factors.

The study conducted earlier detailed that contextual factors play an important role in molding HRM practices and their impact on HRM outcomes. Researchers have identified different contextual factors, such as farm size, firm business strategies, and age of farms (Jackson and Schuler 1995; Martin-Alcazar et al. 2005; Zheng et al. 2006; Guthrie et al. 2009). However, few studies have examined these factors in the context of dairy farming. Thus, farm business strategies have raised awareness about HRM practices in the dairy industry.

It is possible for farm business strategies to determine firm performance by acquiring knowledge of the linkage between HRM practices and the implementation of business strategies. Several studies have been conducted on integrated HRM with business strategies. For instance, Gomez-Mejia and Balkin (1992) used Porter's (1985) generic business strategies, such as cost reduction, quality enhancement, and innovation, to analyze their linkage with HRM practices to measure HRM and firm performance outcomes. The business strategy framework proposed by Porter (1985) forms the basis for Schuler and Jackson (1987) to develop organizational HRM strategies. However, few authors, Gerhart (2005), generally believe that there is only limited evidence available on the notion that the HRM-performance relationship depends on business strategy. Therefore, it is mandatory to hypothesize that business strategies and other contextual factors may influence the influence of HRM practices on HR outcomes. Thus, we propose the following hypothesis:

Figure 1

Conceptual Framework



3. RESEARCH METHODOLOGY

3.1. Sample and Data Collection Procedure.

To ensure that there is no ambiguity about a synergistic set of HRM practices likely to be incorporated in the context of dairy farming, The researcher conducted 10 face-to-face interviews along with an extensive review of the literature. Further, a few focused group discussions were made with dairy farmers and industrial experts.

In the initial stages, the researcher aimed to cover almost 60 HR practices; later on, it was shorter and selected the appropriate ones. The selected HR practices prominently reflect the career development, selection and training, performance evaluation, open communication, OHS, and standard operating procedures of performing their current or due tasks. A survey questionnaire was developed and assessed before the actual survey and was introduced with a few corrections made by the consultation of three faculty members (specialized in HRM), two industry experts, and a group of 20 selected dairy farmers. This was performed to ensure content validity (Adams et al. 2007; Creswell, 2009).

The researchers used a survey company named Action Mailing Lists (AML) to randomly select 1,549 registered Australian dairy farmers out of 6,780 in a random manner. These potential respondents were posted with a survey pack that had a cover letter, consent form, and questionnaire. They were then followed up for two weeks (Dillman, 2007). A total of 956 dairy farms, out of 1,549, officially received the survey pack, while the rest of the target audience was unable to do so due to changes in their postal addresses. This led to the acknowledgment of 362 responses in total (response rate of 38 percent). For further data analysis, listwise deletion was used to filter 205 responses. According to Garver and Mentzer (1999) and Hoelter (1983), data analysis can be run with a sample size of 200. Therefore, the sample size for the current study was restricted to 200 responses, in line with the analytical techniques adopted in the regression-based literature and recommendations given by different investigators. The respondents participated in the survey on a purely voluntary basis, and they were assured that their responses would be kept confidential.

3.2. Measures

HRM Practices

This study considered specific HRM practices, followed by dairy farm businesses in Australia, as independent variables. Based on the literature review, interviews, and industry-based focus group discussions, 60 HRM practices were collected. These items are assumed to reciprocate the usual HRM characteristics of small businesses in the farming industry (Kotey and Slade 2005; Mugera and Bitsch 2005; Stup et al. 2006; Bitsch et al. 2006; Wiesner and Innes 2010). A 7-point Likert scale was used to measure all the items, and the respondents were requested to denote the extent to which the item had been implemented on their dairy farm (1=strongly disagree; 7=strongly agree). The scale's internal consistency value was found to be well defined, based on the Cronbach's alpha value being 0.95 (DeVellis 2003; Nunnally 1978).

As 60 HRM variables may have inter-correlations among each other, the researcher conducted an exploratory factor analysis to mitigate a large number of variables into non-correlated constructs for further regression analysis. This is done because the latter is a technique used in most of the earlier studies that intend to test the association between HRM and performance (e.g., Huselid 1995; Paul and Anantharaman 2003). From the principal component analysis, a total of 10 HRM practice factors were extracted using the varimax rotation method. The suitability of using factor analysis was confirmed through the values attained, that is, the Kaiser-Meyer-Olkin measure of sample adequacy was .820 (<1) and Bartlett's test of sphericity equals to 6493.40 (df=1770; sig = .000). The internal consistency of the factor scale was confirmed through a Cronbach's alpha value of 0.71 for all factors. HRM practice factors such as career opportunities, validated selection, monitoring of occupational health and safety, training process, annual performance review, induction training, informal communication, risk of OH&S, job-related records, and standard operating procedures were included as independent variables in the regression analysis.

HRM Outcomes

This study measured two HRM outcomes, i.e., employee absenteeism and employee turnover. In the current study, the employee turnover rate was in the range of 0-10% to

>50%, as per the survey. The respondents were requested to express their opinions on employee turnover rates on their dairy farms while the values for employee absenteeism were in the range from 0-20 days to > 100 days.

Data collected from both manas i.e., the interviews and questionnaire were collected in terms of bands and denoted by numbers. For instance, at the time of the conduct of the interview, employee turnover data were collected through values in the range of 0-10 percent, 11-30 percent, 31-50 percent, and 50 percent and above. De Vaus' (2011, p. 45) method was followed to convert such variables to interval variables. In this method, the midpoint of each category was identified. For instance, in the case of an employee turnover between 11-30 percent, the midpoint is 20 percent. Each category was recorded at this midpoint. De Vaus (2002) clarified that when recording is done using a midpoint, there is no chance for data distortions since the former merely replaces the variable code for the average actual data of the variable. In line with De Vaus (2002), midpoints were utilized in this study to determine HRM outcomes. These variables can be transformed into interval variables for further regression analysis. For instance, the coding pattern for employee turnover was as follows: 5 for 0-10 percent, 20 for 11-30 percent; 40 for 31-50 percent, and so on.

Contextual Variables

With the help of a 7-point Likert scale, the contextual variable 'farm business strategy' (four items) was determined. The survey instrument had statements to measure this variable while the scale had a range of '1' (strongly disagree) to '7' (strongly agree). Multiple regression analysis was conducted including other contextual variables too namely, 'herd size' values in the range of 0-500 to >2000 cows, and 'farm age' in the range of 0-1 year to >25 years.

3.3. Data Analysis

The dataset was compiled by excluding all those farmers who were unable to provide either overall HRM outcomes or complete HRM data. Furthermore, the dataset was ensured to have no outliers. In total, 205 dairy farm businesses were scrutinized as the final dataset for further analysis. The SPSS 22 (IBM Corporation, 2019) package was used to analyze the data. The profiles of the survey respondents and dairy farm

characteristics were analyzed using frequency analysis. This study adopted the ordinary least squares (OLS) regression analysis technique. OLS regression was utilized in this study to assess the impact of HRM practices on employee turnover and employee absenteeism. Each model was then added to business strategy and other contextual variables to determine the contextual role of business strategy in employee turnover and employee absenteeism.

4. RESULTS AND ANALYSIS

4.1. Profile of Survey Respondents and Dairy Farm Characteristics

Table 1 shows the profiles of the survey respondents and the characteristics of their dairy farms. The Australian dairy farms studied were largely run by males (82 percent) and middle-aged (81 percent between 36-65 years). This signifies a severely aging industrial population. Most respondents (92 percent) had spent more than 15 years in the dairy industry.

Out of the received samples, 205 Australian dairy farms (approximately 85 percent) had less than five full-time equivalent (FTE) workers. Likewise, the herd size of 85 percent of dairy farms was less than 500 milking cows. Of this population, 18% were female and 82% were male. The demographic information collected in this study aligns with data published in the National Dairy Farmers Survey (NDFS 2009). There was no formal Human Resource Management (HRM) department in approximately 94 percent of dairy farms. The owner-managers of dairy farms mostly took care of HRM activities. Approximately 88% of dairy farms were family-owned and managed by owner-managers.

Table 1

Profile of survey respondents and farm characteristics

Profile	Categories	Frequencies & Percentages	Profile	Categories	Frequencies & Percentages
Age	18-25	2 (1%)	***Age***	46-55	76 (37.1%)
	26-35	11 (5.4%)		56-65	49 (23.9%)
	36-45	40 (19.5%)		above 65	27 (13.2%)
Gender	Male	168 (82%)	***Presence of HRM dept.***	No	193 (94.1%)
	Female	37 (18%)		Yes	12 (5.9%)
Position	Owner-manager	190 (92.7%)	***Responsible for HRM***	Owner-manager	190 (92.7%)
	Business Manager	4 (2%)		Business Manager	4 (1.9%)
	HR manager	1 (.5%)		Farm supervisor	4 (1.9%)
	Farm Supervisor	2 (1%)		Other	7 (3.5%)
	Other	8 (3.9%)			
Level of education of the respondent	less than high school	18 (8.8%)	***Type of farm***	Family farm	180 (87.8%)
	High school	100 (48.8%)		Family-owned, but managed by others	19 (9.3%)
	Diploma/ Certificate	60 (29.3%)		Corporate farm	1 (.5%)
	Bachelor	17 (8.3%)		Other	5 (2.4%)
	Postgraduate	10 (4.9%)			
No. of Full Time Equivalent (FTEs) workers	less than 5 workers	175 (85.4%)	***Herd Size***	Less than 500 cows	173 (84.4%)
	Bet. 5 and 10	26 (12.7%)		Bet .500 and 1000	27 (13.2%)
	Bet. 11 and 20	4 (2%)		Bet. 1001 and 2000	5 (2.4%)
				Sample Size	**205**

4.2. Hypotheses Testing

The influence of HRM practices on employee absenteeism and employee turnover was examined using OLS regression analysis. Tables 2 and 3 show the two regressions (models 1 and 2) These models analyzed the influence of HRM practice factors on

employee absenteeism and turnover via their R2 values and significance levels. Both regression models exhibited significant explanatory power, as shown by the R2 values for Employee Turnover (1a) 0.17 and Employee Absenteeism (2a) 0.10. The results indicated that the synergistic set of HRM practices adopted in this study significantly predicted employee turnover ($P<0.01$) and employee absenteeism ($P<0.05$). R-Square measures the extent to which HRM practices may be used to predict the dependent variables. This statistic shows that 17.0% of the variation in employee turnover and 10.0% of the variation in employee absenteeism may be explained by HRM practices.

The regression analysis included control variables, and the outcomes are illustrated in models 1b and 2b. These models infer that the control variables added in the regression analysis were responsible for additional variance in HRM outcomes in addition to the overall effect of HRM practice factors. According to the results, Model 1b remained significant ($p<0.01$) overall, whereas the control variables were responsible for an additional 7.3 per variance in employee turnover. In line with this, the control variables contributed an additional variance of 15.6 percent too in employee absenteeism in Model 2b, in addition to the variance generated by the HRM practice factors.

The majority of HRM practice factors exhibited a positive association with the two HRM outcomes, even though these associations are weak. In Model 1a, employee turnover was significantly reduced by the factor, 'standard operating procedures' factor ($\beta= -.282$, $p<0.01$). Further, employee turnover was lower when few factors such as validated selection process ($\beta= -.268$, $p<0.01$), "induction training" ($\beta= -.114$, $p<0.1$) and "monitoring of OH&S practices" ($\beta= -.178$, $p<0.05$) were considered. This indicates that employees who undergo proper selection process, induction training, and on-the-job coaching as per the standard operating procedures feel safe (with OH&S practices), are highly confident about their jobs, and have very low chances of quitting.

Table 2

Regression Models – Impact of HRM practices on Employee Turnover

N-205	**Employee Turnover**	
HRM practices factors	**Model 1a**	**Model 1b**
(Constant)[1]	61.281(0.0)	-2.014(0.46)
Validated selection process	-.268***	-.179**
Training process	-	-
Induction training program	-.114*	-.168*
Annual performance review	.126*	.127*
Informal communication	-	-
Career opportunities	.174*	.183*
Risk management of OH&S	-	-
Monitoring of OH&S	-.178**	-.169**
Job-related records	.184*	.188*
Standard operating procedures	-.282***	-.284***
Control variables		
Year of establishment of farm (farm age)		.168**
Herd size		.299***
Number of full-time equivalent (FTEs) employees		-.165*
Concern about cost in business strategy		-
Concern about product quality in business strategy		-
Concern about innovation in business strategy		-
Concern about people management in business strategy		-
Model Fit		
R^2	**.171**	**.244**
Change in R^2 (with control variables)	**-**	**.073**
F value	**3.380*****	**2.956*****

p<0.1*, p<0.05**, p<-.01*** All variables showed Beta Coefficients

In Model 2a, there was a decline observed in employee absenteeism which is correlated with HRM practice factors including 'induction training' (β= -.136, p<0.1), 'training process' (β= -.125, p<0.1), 'risk management of OH&S' (β= -.142, p<0.1), and 'monitoring of OH&S practices' (β= -.148, p<0.1). These findings infer that few HRM

practices, especially those related to staff development and OH&S compliance, result in increased HRM outcomes. These outcomes are likely to support low employee turnover and absenteeism. On the contrary, there was an association found between a few HRM practice factors, such as 'career opportunities' (β= .174, p<0.1) and 'annual performance review' (β= .126, p<0.1), and a high level of employee turnover in Model 1a. In Model 2a, 'informal communication' was a factor that resulted in high employee absenteeism (β= .167, p<0.05).

Table 3

Regression Models – Impact of HRM practices on Employee Absenteeism

N-205	**Employee absenteeism**	
HRM practices factors	**Model 2a**	**Model 2b**
(Constant)[1]	16.446(0.00)	3.010(0.03)
Validated selection process	-	-
Training process	-.125*	-.151*
Induction training program	-.136*	-.164*
Annual performance review	.129*	.164*
Informal communication	.167**	.114*
Career opportunities	-	-
Risk management of OH&S	-.142*	-.140*
Monitoring of OH&S	-.148*	-.143*
Job-related records	-	-
Standard operating procedures	-.143*	-.152**
Control variables		
Year of establishment of farm (farm age)		-
Herd size		-
Number of full-time equivalent (FTEs) employees		-
Concern about cost in business strategy		.285***
Concern about product quality in business strategy		-.305***
Concern about innovation in business strategy		-.292***
Concern about people management in business strategy		-.171*
Model Fit		
R^2	**.103**	**.259**
Change in R^2 (with control variables)	**-**	**.156**
F value	**1.880****	**3.179*****

p<0.1*, p<0.05**, p<-.01*** All variables showed Beta Coefficients

There was a moderate to significant impact exerted by the control variables relevant to dairy farm characteristics, such as farm age (β= .168, p<0.05), herd size (β= .299, p<0.01), and number of employees (β= .165, p<0.1) on employee turnover. They observed that large farms and a large number of herds resulted in high employee turnover. This is an important implication for the dairy industry, as it is currently experiencing a downturn, shortage of skilled manpower, and labor turnover. There is a significant relationship between the adoption of different farm business strategies and employee absenteeism. The results infer that it is the responsibility of dairy farmers to closely observe and work on the quality of products, innovate new technologies, and ensure people management, as an appropriate implementation of these strategies helps reduce employee absenteeism.

5. DISCUSSION

The findings of the study successfully answered a couple of research questions and achieved its objective behind this conduct by stating that HRM practices decline employee turnover and employee absenteeism. Further, both the stated hypotheses were found to be true and significant in the presence of control variables and without. The study results, attained through statistical analyses, extend general support to the hypothesis that the implementation of HRM practices has an impact on HRM outcomes, which can be understood from lower employee absenteeism and turnover rates. The current study results emphasize the facts already established, that is, eligible farm employees, are scrutinized and selected through appropriate recruitment processes, such as job application reviews, interviews, assessment of skills, and background verification, which are likely to be continued in the organization (Bitsch et al., 2006). The dairy farmers who participated in the research through semi-structured interviews and focus group discussions stressed that the chances of highly skilled employees, who undergo stringent and lengthy interview processes, to stay back in the organization for a longer time is high due to their job performance and satisfaction. Therefore, the validated selection process plays a vital role in acquiring knowledgeable and skilled farm

employees. Dairy employers are expected to develop advanced and innovative recruitment and selection methods in terms of skill and labor shortage (Moore et al., 2020) to employ potential individuals in their farms.

Factors related to 'training and development' were observed to reduce both employee absenteeism and turnover. As per earlier research, there is a positive association between employee training opportunities and employee retention (Griffeth et al. 2000). First, employee training programs ensure that employees are attached to the organization in several ways, thus helping their retention (e.g., Decktop et al., 2006). Training increases employees' knowledge, skills, and abilities, which in turn empowers them to perform their roles efficiently (Olsztynski, 2007). The chances of termination are lower for an employee who shows excellent performance. Second, trained employees increase the human capital value of the organization, which in turn boosts the firm's image and provides them with a competitive advantage. Employees who underwent training in their firms felt energized and tended to stay back in the organization to look after their personal and professional well-being. In addition, induction training has been argued to mitigate safety problems and reduce the risks of inferior work quality (Bitsch and Harsh, 2004). Induction training, when provided with special attention to safety aspects, tends to reduce farm accidents and worker injuries. This in turn results in low employee absenteeism.

The OH&S factor can help farms eliminate negative HRM outcomes such as employee turnover and employee absenteeism. The current study's findings confirmed this opinion, that is, a significant decline in employee turnover is likely to occur with the adoption of OH&S practices in the organization. Effective management of OH&S helps farmers conduct safety-related training programs and disseminate safety messages to their employees regularly (Strochlic and Hamerschlag, 2005). Compliance-based safety training, when rendered, helps reduce accidents and workplace injuries in farms. Consequently, employee turnover is reduced. On the contrary, when OH&S is not appropriately implemented, employees skip sanitation procedures and violate safety regulations (Bitsch et al., 2006). Such noncompliance with OH&S leads to a high chance of farm accidents and penalties from compliance authorities. Employees who are

conscious of their safety consider leaving farms that report regular accidents and injuries. At times, their motivation to attend work daily was low. Therefore, dairy farmers must ensure that their farms comply with OH&S policies and practices, which results in a reduction in employee turnover and absenteeism.

Effective management of OH&S not only stresses physical well-being but also the psychological well-being of the workers in dairy farms (see Dairy Safety 2006, p. 4; Koralesky et al., 2021). Most farm workers experience long working hours and social isolation due to their job demands, which results in psychological effects. Therefore, such issues should be carefully considered to eliminate negative HRM outcomes on farms (e.g., Bitsch and Olynk 2008; Strochlic and Hamerschlag 2005) and small businesses (e.g., Cardon and Stevens 2004). When OH&S practices are implemented on a farm, they tend to reduce the psychological hazards faced by farm workers. In the absence of OH&S practices, there is a high risk of psychological hazards among employees, such as stress, fatigue, bullying, loneliness, and internal conflicts that occur due to social interactions among workers (Dairy Safety 2006, p. 4). The implementation of OH&S practices such as paid holidays, psychological counseling, family-friendly practices, and social interaction opportunities are likely to shield employees from these hazards and reduce employee turnover and employee absenteeism. The current findings support this argument.

It is not surprising that an appropriate implementation of Standard Operating Procedures (SOPs) is likely to mitigate employee turnover rates. In addition, Stup et al. (2006), SOPs tend to improve the performance of individuals in dairy farming settings. Bitsch et al (2006) opined that those employees who exhibit high performance are less likely to be terminated voluntary turnover. Step (2001) mentioned that employees who abide by SOPs express a strong commitment to their roles and the firm. Thus, employee turnover can be mitigated with the use of SOPs because they ensure no bias in processes and facilitate employees' job satisfaction and better individual performance.

One must acknowledge that not all HRM practices positively contribute to desirable HRM outcomes. There is a relationship between informal communication and high employee absenteeism. This outcome contradicts Bitsch and Harsh's (2004) results. In

their research, they argued that, at most times, sharing business information is used to develop trust between the employer and employees. Thus, informal communication that occurs between owners and employees in terms of organizational development and dissemination of information about growth and profits is likely to reduce employee turnover and absenteeism (Bitsch and Harsh 2004). However, the current study's findings contradict this claim, that is, informal communication between Australian dairy farms and their employees might sometimes be considered leniency or an act of amateurish and non-professional relationships. Thus, it is not well received among employees. Thus, informal communication is of no help if low employee absenteeism is one of the HRM goals that must be achieved. There is a need to examine other HRM practices that may reduce employee absenteeism.

Career opportunities and high employee turnover are correlated with each other which can be explained in two ways herewith (Barthauer, Kaucher, Spurk, & Kauffeld, 2020). First, it is argued that farmers are proactive in recommending career opportunities to their workers (Strochlic and Hamerschlag, 2005), especially in the farming industry. Thus, career opportunities available elsewhere contribute significantly to high employee turnover (Bitsch and Harsh, 2004). Marchand et al (2008) cited that most of the time, farmworkers quit their jobs in a quench of better job prospects, higher pay, and benefits offered by other non-farming regional competitors, for instance, retail outlets and restaurants. When farmworkers are looking for alternative career opportunities, it is obvious that they start demanding high pay and more on-farm benefits. When providing career opportunities for farmers, dairy farmers must take into account the possible negative impact of such HRM practices on employee turnover.

There is an association between HRM outcomes, such as high employee turnover and absenteeism, and annual performance reviews. Previous studies (Testa and Ehrhart 2005; Smither et al., 2005) mentioned that despite being a crucial process for organizations, annual performance reviews result in resentment among employees who perceive that their performance is assessed unfairly. These arguments are also reflected in the US farming context in studies conducted with special attention to labor-management issues. For instance, employees perceive performance review as a negative factor and consider it

a potential tool to expel them from the organization if their performance does not meet expectations (Bitsch et al., 2006; Bitsch and Harsh, 2004). In addition, the performance review results revealed employees' substandard performance. Employees and owner-managers start pressurizing employees with poor performance in such situations (Bitsch and Harsh, 2004), which in turn triggers them to quit the organization (Bitsch et al., 2006). On the other hand, employees whose performance was well above the standards started expecting wage adjustments quickly. However, the owners and managers of farms are left in a position unable to increase employees' salaries immediately after every evaluation period (Bitsch et al., 2006). This results in high employee turnover, as employees' demands for higher wages or increased benefits remain unfulfilled.

Porter's (1985) generic business strategies about innovation, quality enhancement, and cost reduction are generally believed to affect HRM outcomes and firm performance (Youndt et al., 1996). For example, following a cost-focused strategy results in high employee absenteeism. This might be attributed to the associated HRM practices that focus on close monitoring of an employee's activities and the importance given to repetitive tasks (Schuler and Jackson, 1987), which might have increased the technical skills in herd management. Bird and Beechler (2002) mentioned that cost-focused HRM practices tend to emphasize low wages and reduce the number of employees deliberately to fulfill short-term organizational performance outcomes. This results in a reduction in employee satisfaction and an increase in employee turnover and absenteeism.

When the focus was shifted toward a 'product quality strategy,' the results were promising, that is, a reduction in employee absenteeism. A reason may be that farms with quality-focused strategies emphasize skill development training programs for their employees, who in turn gain enough knowledge and skills for herd management, and eventually, herd health is enhanced. Schuler and Jackson (1987) argue that when a firm specifically focuses on quality-enhancement business strategy coupled with training and development activities, employees typically record great employee commitment and utilization. According to Sanz-Valee et al. (1999), firms that ensure that their employees are appropriately trained tend to stimulate employee cooperation, which can be understood from sustainable quality improvement. Higher cooperation among employees

results in the development of positive role behaviors, such as low absenteeism. In line with this, when employees exhibit high commitment to their jobs, they reinforce reliable behavior with regard to positive HRM outcomes, such as low employee absenteeism.

A positive relationship exists between the adoption of innovation technology and low employee absenteeism. Jago et al (2007) and Dowie (2012) mentioned that there is a rapid progress observed in innovative farming technology in recent years. Similarly, Australian dairy farmers have adopted several innovative technologies that can help them in pasture management, genetics, herd health, and feeding. This adoption of innovative technology increases milk production, labor productivity, and performance outcomes (Lubulwa and Shafron, 2008). Farms that strategize their business plans in line with technological innovation are likely to yield positive results through the selection of highly skilled employees, training employees at regular intervals, and performance management to achieve long-term goals (Schuler & Jackson, 1987). Employees working on dairy farms, which continuously adapt novel technologies in their operations, are encouraged by their farms to acquire and increase their skills through planned risk-taking and are given more responsibility. This helps increase work morale and job commitment (Schuler & Jackson, 1987; Jago et al., 2007; Lubulwa & Shafron, 2008; Bewley, 2010), which in turn reduces employee absenteeism.

The dairy farmers in Australia opined that the ‘concern about people management’ is also an important factor to be considered when developing business strategies for their farms. The reason behind this stance might be attributed to the emerging attention towards paid employees and family workers after the recent structural changes that occurred in dairy. The current study established that when people’s management strategy is implemented, it helps farms reduce employee absenteeism. Human resources must be considered a crucial source, rather than a cost-to-company one, to attain a competitive advantage for a firm (Barney, 1991; Pfeffer, 1994). The researcher thus concludes that business strategies such as the adoption of innovative technology, product quality enhancement, and people management mitigate employee absenteeism in the context of Australian dairy farmers.

Contextual variables such as farm size (i.e., number of full-time equivalent (FTEs)

workers) and herd size have implications for HRM and farmer performance outcomes. This study indicates that dairy farms with a large number of herds and more employees are more likely to have high employee turnover rates. This is because such dairy farms function in tough working environments owing to long working hours and stringent evaluation criteria. Most of the time, large-scale herd dairy farms demand huge economic scale through workplace efficiency in contrast with the performance standards set. Large herd farm employees are expected to benchmark their performance among a network of large employees. Furthermore, identifying suitable full-time employees is a challenging task for dairy farms with large herds. Respondents credited this challenge to competing with other farm and non-farm businesses (Hadley et al., 2002). These challenges push large dairy farms to recruit employees in a hurry, thus leading to the selection of unsuitable employees. Such employees increase the risk of early employee turnover. Altogether, large dairy farms experience a high employee turnover.

5.1. Theoretical Contributions

Two major theoretical contributions of this study are noteworthy. First, RBT supports the notion that sustained competitive advantage can be achieved through effective HRM practices (Schuler & Jackson, 1987; Priem & Butler, 2001; Paauwe & Boselie, 2003; Kraaijenbrink et al., 2010). However, when examining the effects of HRM on small dairy farms, it was not clear what sort of competitive advantage dairy farmers need to focus on, and, therefore, what specific HRM policies and practices are more effective in producing valuable, rare, inimitable, and non-substitutable human resources that could, in turn, help farms achieve sustainable competitiveness. This study identified that sustainable competitiveness in farming is achieved by positive HRM outcomes, such as reduced employee turnover and absenteeism.

Second, several dimensions of institutional factors need to be considered when investigating both internal and external impacts on shaping organizational HRM practices (Bacon and Hoque, 2003; Bacon and Hoque, 2005). Considering coercive, mimetic, and normative pressures (DiMaggio and Powell, 1983), several institutional factors such as business strategies relevant to dairy farming business operations were investigated in the current study. These institutional factors cover a range of business strategies, farm or

herd sizes, etc. (Jackson & Schuler, 1995; Paauwe & Boselie, 2003; Paauwe, 2004; Martin-Alcazar et al. 2005; Farndale and Paauwe, 2007). The findings of this study emphasize the importance of farm business strategies in shaping HRM practices in the dairy farming sector. HRM is largely contextualized (Jackson and Schuler, 1995; Martin-Alcazar et al., 2005) to achieve specific farm goals.

5.2. Practical Implications

Our findings have practical implications for dairy farmers. First, this study identified several employee retention strategies. Given the ongoing issue of employee retention in dairy farming, the findings will help dairy farmers focus on developing several HRM strategies, which might include the combined effort of validated selection, induction training, formal training, ensuring health and safety on farms, and following standard operating procedures and evaluating performance with an emphasis on appreciation and recognition to achieve employee retention goals in rural and regional areas.

Second, this study illustrates the effects of implementing certain farm business strategies on achieving desirable HRM outcomes. Australian dairy farms tend to focus on implementing business strategies related to product quality, technological innovation, and people management. This may practically assist owner-managers in choosing appropriate business strategies and adopting specific HRM practices according to these particular strategies. The adoption of specific HRM practices following appropriate strategies may assist dairy farmers in achieving better HRM outcomes.

5.3. Limitations and the Future Research Directions

The first limitation of this study is the inability to explore the process and specific "way" HRM practices were implemented by dairy farmers. This research only studied the specific HRM practices that were commonly implemented by dairy farmers and the extent to which HRM practices affected HRM outcomes. The survey outcomes indicated only HRM practices at the specific time of the survey and did not consider the process of implementation. Future studies need to explore the process of HRM implementation in more depth using longitudinal data. Second, the current study only collected data from a single respondent, the manager. Future research should determine how employees respond to HRM practices. A comparison of both employees and owner-managers

perspectives on HRM could offer more insights for dairy practitioners and policymakers to improve work practices in farming. Third, instead of perceptual data, future research should consider more objective performance data to effectively measure the factors influencing actual HRM outcomes.

6. CONCLUSION

This study found that large farms with more milking animals have a considerable workforce to decline employee turnover and absenteeism. This is vital for the dairy industry, which struggles with personnel shortages and turnover. Different farm business practices significantly affect employee absenteeism. These results suggest that dairy farmers should monitor product quality, develop innovative technology, and manage people to reduce staff absenteeism and turnover. This study confirms that dairy farmers in Australia have adopted HRM practices. There is also a close alignment between HRM practices followed by the farms considered for the study and their business strategies. The study aligns with the literature that determines the performance of small firms at both the employee and firm levels. It is generally argued that most of the time, firm performance is determined by its business strategies that drive the formulation and implementation of HRM policies and practices. This viewpoint is supported by this study and is highly relevant to the current study. This study emphasizes the crucial role played by business strategies in adopting HRM practices and their influence on employee and organizational performance outcomes such as employee turnover and absenteeism.

REFERENCES

Adams, J, Khan, HT, Raeside, R & White, D 2007, Research methods for graduate business and social science students, Sage.

Bacon, N & Hoque, K 2005, 'HRM in the SME sector: valuable employees and coercive networks', The International Journal of Human Resource Management, vol. 16, no. 11, pp. 1976-99.

Barney, J 1991, 'Firm resources and sustained competitive advantage', Journal of Management, vol. 17, no. 1, pp. 99-120.

Barthauer, L., Kaucher, P., Spurk, D., & Kauffeld, S. (2020). Burnout and career (un) sustainability: Looking into the Blackbox of burnout triggered career turnover intentions. Journal of vocational behavior, 117, 103334.

Beecher, M., Lawton, T., & Gorman, M. (2023). Irish dairy farmers' assessment of their training needs. The Journal of Agricultural Education and Extension, 1-17.

Bewley, J 2010 'Precision Dairy Farming: Advanced Analysis Solutions for Future Profitability ', paper presented to First North American Conference on Precision Dairy Management 2010 University of Kentucky, Kentucky, USA.

Billikopf, G. (1996). Crew workers split between hourly and piece-rate pay. California Agriculture, 50(6), 5-8.

Bird, A & Beechler, S 2002 'The link between business strategy and international human resource management practices', in MaO Mendenhall, G. (Eds.) (ed.), Reading and Cases in International Human Resource Management South-Western College, Cincinnati, OH.

Bitsch, V, Kassa, GA, Harsh, SB & Mugera, AW 2006, 'Human resource management risks: Sources and control strategies based on dairy farmer focus groups', Journal of Agricultural and Applied Economics, vol. 38, no. 1, pp. 123-36.

Bitsch, V., & Harsh, S. B. (2004). Labor risk attributes in the green industry: Business owners' and managers' perspectives. Journal of Agricultural and Applied Economics, 36(1379-2016-112628), 731-745.

Bitsch, V., & Olynk, N. J. (2008). Risk-increasing and risk-reducing practices in human resource management: Focus group discussions with livestock managers. Journal of Agricultural and Applied Economics, 40(1379-2016-112707), 185-201.

Bitsch, V., Kassa, G. A., Harsh, S. B., & Mugera, A. W. (2006). Human resource management risks: sources and control strategies based on dairy farmer focus groups. Journal of Agricultural and Applied Economics, 38(1379-2016-112812), 123-136.

Boselie, P, Paauwe, J & Richardson, R 2003, 'Human resource management, institutionalization and organizational performance: a comparison of hospitals, hotels and local government', The International Journal of Human Resource Management, vol. 14, no. 8, pp. 1407-29.

Boxall, P 1996, 'The Strategic HRM Debate and the Resource-Based View of the Firm', Human resource management journal, vol. 6, no. 3, pp. 59-75.

Cardon, MS & Stevens, CE 2004, 'Managing human resources in small organizations: What do we know?', Human Resource Management Review, vol. 14, no. 3, pp. 295-323.

Chowhan, J. (2016). Unpacking the black box: understanding the relationship between strategy, HRM practices, innovation and organizational performance. Human Resource Management Journal, 26(2), 112-133.

Creswell, JW 2009, Research design: Qualitative, quantitative, and mixed methods approaches, SAGE Publications, Thousand Oaks, CA.

Dairy Safety, 2006, 'A Practical Guide', 2nd Edition, Work Safe Victoria, pp. 1-40

Davies, I. A., & Crane, A. (2010). Corporate social responsibility in small-and medium-size enterprises: investigating employee engagement in fair trade companies. Business Ethics: A European Review, 19(2), 126-139.

Della Torre, E. (2019). Collective voice mechanisms, HRM practices and organizational performance in Italian manufacturing firms. European Management Journal, 37(3), 398-410.

DeVaus, D 2002, Surveys in social science research, Crows Nest, New South Wales: Allen & Unwin.

DeVaus, D 2011, Surveys in social science research, Routledge.

DeVellis, R 2003, Scale development: Theory and applications. Applied Social Research Methods Series. Bickman, L and DJ Rog, Thousand Oaks, Calif.: SAGE Publications, Inc.

Dillman, DA 2007, Mail and internet surveys: The tailored design method, Wiley New York.

DiMaggio, PJ & Powell, WW 1983, 'The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields', American sociological review, pp. 147-60.

Dowie, C 2012 'Robotic rotary dairy far from ordinary ', Farm Weekly, retrieved 15th April, 2012, <www.farmonline.com.au/news/nationalruralnews/ >.

Farndale, E & Paauwe, J 2007, 'Uncovering competitive and institutional drivers of HRM practices in multinational corporations', Human resource management journal, vol. 17, no. 4, pp. 355-75.

Gerhart, B 2005, 'Human resources and business performance: Findings, unanswered questions, and an alternative approach', Management Revue, vol. 16, no. 2, pp. 174-85.

Gomez-Mejia, LR & Balkin, DB 1992, Compensation, organizational strategy, and firm performance, South-Western Pub.

Griffeth, RW, Hom, PW & Gaertner, S 2000, 'A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium', Journal of management, vol. 26, no. 3, pp. 463-88.

Guthrie, JP, Flood, PC, Liu, W & MacCurtain, S 2009, 'High performance work systems in Ireland: human resource and organizational outcomes', The International Journal of Human Resource Management, vol. 20, no. 1, pp. 112-25.

Hadley, G, Harsh, S & Wolf, C 2002, 'Managerial and financial implications of major dairy farm expansions in Michigan and Wisconsin', Journal of Dairy Science, vol. 85, no. 8, pp. 2053-64.

Hagevoort, G. R., Douphrate, D. I., & Reynolds, S. J. (2013). A review of health and safety leadership and managerial practices on modern dairy farms. Journal of agromedicine, 18(3), 265-273.

Harney, B., & Alkhalaf, H. (2020). A quarter‐century review of HRM in small and medium‐sized enterprises: Capturing what we know, exploring where we need to go. Human Resource Management, 60(1), 5-29.

Howard, W. H., McEwan, K. A., Brinkman, G. L., & Christensen, J. M. (1991). Human resource management on the farm: Attracting, keeping, and motivating labor. Agribusiness, 7(1), 11-26.

Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. Academy of management journal, 38(3), 635-672.

Hyde, J., Cornelisse, S. A., & Holden, L. A. (2011). Human resource management on dairy farms: does investing in people matter? Economics Bulletin, 31(1), 208-217.

Hyde, J., Stup, R., & Holden, L. (2008). The effect of human resource management practices on farm profitability: an initial assessment. Economics Bulletin, 17(12), 1-10.

Jackson, SE & Schuler, RS 1995, 'Understanding human resource management in the context of organizations and their environment', Annual Review of Psychology, vol. 46, no. 1, pp. 237-64.

Jago, J, Ohnstad, I & Reinemann, DJ 2007, 'Labor Practices and Technology Adoption on New Zealand Dairy Farms', in Paper presented at the Sixth International ASABE Dairy Housing Conference, vol. 16, p. 18.

Jashari, A., & Kutllovci, E. (2020). The impact of human resource management practices on organizational performance case study: manufacturing enterprises in Kosovo. Business: Theory and Practice, 21(1), 222-229.

Katou, AA & Budhwar, PS 2010, 'Causal relationship between HRM policies and organisational performance: Evidence from the Greek manufacturing sector', European Management Journal, vol. 28, no. 1, pp. 25-39.

Koralesky, K. E., Mills, K. E., von Keyserlingk, M. A. G., & Weary, D. M. (2021). Using Realistic Evaluation to understand how interventions work on dairy farms. Animal, 15(6), 100233.

Kotey, B & Slade, P 2005, 'Formal human resource management practices in small growing firms', Journal of small business management, vol. 43, no. 1, pp. 16-40.

Kraaijenbrink, J, Spender, J-C & Groen, AJ 2010, 'The resource-based view: a review and assessment of its critiques', Journal of management, vol. 36, no. 1, pp. 349-72.

Lubulwa, M & Shafron, W 2007 Australian Dairy Industry: Technology and Farm Management Practices 2004-05, ABARE Research Report 07.9 Dairy Australia, Canberra, Australia.

Luc Sels, L, De Winne, S, Delmotte, J, Maes, J, Faems, D & Forrier, A 2006, 'Linking HRM and small business performance: An examination of the impact of HRM intensity on the productivity and financial performance of small businesses', Small Business Economics, vol. 26, no. 1, pp. 83-101.

MacDuffie, JP 1995, 'Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry', Industrial and labor relations review, vol. 48, no. 2, pp. 197-221.

Marchand, L, Boekhorst, J & McEwan, K 2008, Human Resource Needs Assessment For the Pork Industry; Report for Employment Ontario project, Ontario Pork Industry Council.

Martin-Alcazar, F, Romero-Fernandez, PM & Sanchez-Gardey, G 2005, 'Strategic human resource management: integrating the universalistic, contingent, configurational and contextual perspectives', The International Journal of Human Resource Management, vol. 16, no. 5, pp. 633-59.

Mathieu, C., Fabi, B., Lacoursière, R., & Raymond, L. (2016). The role of supervisory behavior, job satisfaction and organizational commitment on employee turnover. Journal of Management and Organization, 22(1), 113.

Miller, G. D., & Auestad, N. (2013). Towards a sustainable dairy sector: Leadership in sustainable nutrition. International Journal of Dairy Technology, 66(3), 307-316.

Moore, S. J., Durst, P. T., Ritter, C., Nobrega, D., & Barkema, H. W. (2020). Effects of employer management on employee recruitment, satisfaction, engagement, and retention on large US dairy farms. Journal of dairy science, 103(9), 8482-8493.

Mugera, A. W. (2012). Sustained competitive advantage in agribusiness: Applying the resource-based theory to human resources. International Food and Agribusiness Management Review, 15(1030-2016-82811), 27-48.

Mugera, A. W., & Bitsch, V. (2005). Managing labor on dairy farms: A resource-based perspective with evidence from case studies. International Food and Agribusiness Management Review, 8(1030-2016-82605), 79-98.

Mugera, AW & Bitsch, V 2005, 'Managing Labor on Dairy Farms: A Resource-Based Perspective with Evidence from Case Studies', International Food and Agribusiness Management Review, vol. 8, no. 3, pp. 80-98.

Mugera, AW 2012, 'Sustained Competitive Advantage in Agribusiness: Applying the

Resource-Based Theory to Human Resources', International Food and Agribusiness Management Review, vol. 15, no. 4, pp. 27-48.

NDFS 2009 National dairy Farmers Survey report Dairy Australia, Australia.

Nettle, R, Semmelroth, A, Ford, R, Zheng, C & Ullah, A 2011 Retention of people in dairy farming - what is working and why? Gardiner Foundation Project Report, The People in Dairy Program, Dairy Australia, Australia.

Nettle, R. (2012). Farmers growing farmers: The role of employment practices in reproducing dairy farming in Australia. Paper presented at the 10th European IFSA Symposium, Aarhus, Denmark.

Nettle, R., Crawford, A., & Brightling, P. (2018). How private-sector farm advisors change their practices: an Australian case study. Journal of Rural Studies, 58, 20-27.

Nettle, R., Paine, M., & Petheram, J. (2006). Improving Employment Relationships: findings from learning interventions in farm employment. New Zealand Journal of Employment Relations, 31(1), 17.

Nettle, R., Semmelroth, A., Ford, R., Zheng, C., & Ullah, A. (2011). Retention of people in dairyfarming–what is working and why. Melbourne, Australia: University Of Melbourne, Deakin University.

Nunnally, J 1978, Psychometric theory, New York: McGraw-Hill.

Ogawa, K., Garrod, G., & Yagi, H. (2023). Sustainability strategies and stakeholder management for upland farming. Land Use Policy, 131, 106707.

Oliver, C 1997, 'Sustainable competitive advantage: Combining institutional and resource-based views', Strategic management journal, vol. 18, no. 9, pp. 697-713.

Olsztynski, J 2007, 'How to find and keep good people ', National Driller, vol. 28 no. 3 pp. 16-20.

Paauwe, J 2004, HRM and performance: Achieving long-term viability, Oxford University Press.

Paul, A. K., & Anantharaman, R. N. (2003). Impact of people management practices on organizational performance: analysis of a causal model. The International Journal of Human Resource Management, 14(7), 1246-1266.

Paul, AK & Anantharaman, RN 2003, 'Impact of people management practices on organizational performance: analysis of a causal model', International Journal of Human Resource Management, vol. 14, no. 7, pp. 1246-66.

Podgorodnichenko, N., Edgar, F., & McAndrew, I. (2020). The role of HRM in developing sustainable organizations: Contemporary challenges and contradictions. Human Resource Management Review, 30(3), 100685.

Porter, ME 1985, Competitive advantage: Creating and sustaining superior performance, Free press, New York.

Porter, ME 1985, Competitive advantage: Creating and sustaining superior performance, Free press, New York.

Priem, RL & Butler, JE 2001, 'Is the resource-based" view" a useful perspective for strategic management research?', Academy of Management Review, vol. 26, no. 1, pp. 22-40.

Rehman, S., Hamza, M. A., Nasir, A., Ullah, A., & Arshad, N. (2022). Impact of COVID-19 and consortium factors on mental health: role of emotional labor strategies in achieving sustainable development goals. Frontiers in Psychology, 13, 795677.

Santhanam-Martin, M., Bridge, P., & Stevens, L. (2019). Working with stuckness: lessons from an intervention to support intergenerational transitions on Australian dairy farms. Canadian Journal of Development Studies/Revue canadienne d'études du

développement, 40(2), 254-271.

Sanz-Valle, R, Sabater-Sanchez, R & Aragon-Sanchez, A 1999, 'Human resource management and business strategy links: an empirical study', International Journal of Human Resource Management, vol. 10, no. 4, pp. 655-71.

Schuler, RS & Jackson, SE 1987, 'Linking competitive strategies with human resource management practices', The Academy of Management Executive, vol. 1, no. 3, pp. 207-19.

Schuler, RS & Jackson, SE 1987, 'Linking competitive strategies with human resource management practices', The Academy of Management Executive, vol. 1, no. 3, pp. 207-19.

Searle, G 2002, The reality of a career in the dairy industry: an employee's perspective: a survey of New Zealand dairy farm staff, Prepared for the Kellogg Rural Leadership Course.

Shen, J., & Edwards, V. (2004). Recruitment and selection in Chinese MNEs. The International Journal of Human Resource Management, 15(4-5), 814-835.

Slavić, A., Bjekić, R., & Berber, N. (2017). The role of the internet and social networks in recruitment and selection process. Strategic management, 22(3), 36-43.

Smither, JW, London, M & Richmond, KR 2005, 'The Relationship Between Leaders' Personality and Their Reactions to and Use of Multisource Feedback A Longitudinal Study', Group & Organization Management, vol. 30, no. 2, pp. 181-210.

Strochlic, R & Hamerschlag, K 2005, 'Best labor management practices on twelve California farms: toward a more sustainable food system', California: California Institute for Rural Studies.

Stup, R 2001, 'Standard operating procedures: A writing guide', Dairy Alliance, Penn State University, www.dairyalliance.com/hrmgmt/organizationaldev/SOPManual.pdf.

Stup, R, Hyde, J & Holden, L 2006, 'Relationships between selected human resource management practices and dairy farm performance', Journal of Dairy Science, vol. 89, no. 3, pp. 1116-20.

Stup, R., Hyde, J., & Holden, L. (2006). Relationships between selected human resource management practices and dairy farm performance. Journal of dairy science, 89(3), 1116-1120.

Teo, ST, Le Clerc, M & Galang, MC 2011, 'Human capital enhancing HRM systems and frontline employees in Australian manufacturing SMEs', The International Journal of Human Resource Management, vol. 22, no. 12, pp. 2522-38.

Testa, MR & Ehrhart, MG 2005, 'Service Leader Interaction Behaviors Comparing Employee and Manager Perspectives', Group & Organization Management, vol. 30, no. 5, pp. 456-86.

The People in Dairy, 2012, The People in Dairy Program, Dairy Australia, retrieved 17 February 2021, <www.dairyaustralia.com.au/thepeopleindairy/>.

Thilmany, D. D. (2001). Farm labor trends and management in Washington State. Journal of Agribusiness, 19(345-2016-15196), 1-15.

Ulrich, D. (2011). An anniversary reflection. Human Resource Management, 50(1), 3-7.

Ulvenblad, P., & Cederholm Björklund, J. (2018). A leadership development programme for agricultural entrepreneurs in Sweden. The Journal of Agricultural Education and Extension, 24(4), 327-343.

Wang, L., Zhou, Y., & Zheng, G. (2022). Linking Digital HRM Practices with HRM Effectiveness: The Moderate Role of HRM Capability Maturity from the Adaptive

Structuration Perspective. Sustainability, 14(2), 1003.

Wiesner, R & Innes, P 2010, 'Bleak house or bright prospect?: HRM in Australian SMEs over 1998-2008', Asia Pacific Journal of Human Resources, vol. 48, no. 2, pp. 151-84.

Youndt, MA, Snell, SA, Dean Jr, JW & Lepak, DP 1996, 'Human resource management, manufacturing strategy, and firm performance', Academy of Management journal, vol. 39, no. 4, pp. 836-66.

Zheng, C, Morrison, M & O'Neill, G 2006, 'An empirical study of high performance HRM practices in Chinese SMEs', The International Journal of Human Resource Management, vol. 17, no. 10, pp. 1772-803.

Zheng, C, O'Neill, G & Morrison, M 2009, 'Enhancing Chinese SME performance through innovative HR practices', Personnel review, vol. 38, no. 2, pp. 175-94.